

FINANCIAL BUDGET MANUAL

2002



Farm Management Group
Applied Management
and Computing Division

LINCOLN
UNIVERSITY
Te Whare Wānaka O Aoraki



FINANCIAL BUDGET MANUAL 2002

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PREFACE

The "Financial Budget Manual 2002" is an invaluable reference book for farmers and growers, consultants and students. It contains a wealth of up to date information on farm and orchard costs and prices, the profitability of different enterprises, and income taxation. A special supplement to the Manual is also provided, containing information on the market and price outlook for each of New Zealand's major farm exports. Following its successful introduction in 1999, the electronic (CD) version of the Manual continues to be available as well as the book format.

Unless stated otherwise, the data contained in the Manual are that ruling in January 2002, and are quoted exclusive of GST. Prices do not remain stationary so the Manual should be used as a guide only. Market movements and exchange rate changes are just two of the factors which can rapidly alter costs and prices. The availability of discounts for bulk purchases, and deferred payment arrangements, may also affect final costs for budgeting purposes.

Information quoted has been gathered from sources throughout New Zealand, but some variation may occur between regions. Trade names have been used for clarity and convenience; no preferential endorsement by the University is intended, nor is any criticism implied of any product which does not appear in the Manual.

To use the Manual effectively, readers are well advised to first consult the index (Section F) to identify the location of the information required.

Please note that each of the five sections is paged individually, for example, page A-40 refers to the 40th page of the first section; B-120 refers to the 120th page of the second section.

I would like to thank all individuals, organisations and commercial firms who have provided information for our use. Without their co-operation, the production of the Financial Manual is not feasible. I wish to express my appreciation to Sarah Luton, Virginia Askin and Philip Luton for their efforts in gathering, collating and verifying information.

While every effort has been made to ensure that the information in this publication is accurate, Lincoln University cannot accept responsibility for any errors or omissions or for any loss or damage resulting from the reliance on or the use of the information, forecasts or opinions therein.

The inclusion of advertisements in the text does not necessarily imply the University's endorsement of those advertised products/services.

Any suggestions for the improvement of the Manual would be welcomed.

For readers' information the Applied Management and Computing Division at Lincoln University also produces a companion volume - the "Farm Technical Manual". It is a versatile reference book, which brings into one place all manner of essential technical information required by farmers and others involved in the farming industry.

Elizabeth S. Burt
EDITOR
March 2002

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SECTION 6 - INDEX

SECTION 1

PRODUCT PRICES

1.1 MARKET PRICES

1.1.1 Impact of Exchange Rate on Product Prices

For pastoral farming, exchange rates can have a dominant effect on prices at the farm gate. The exchange rate is influenced by four main factors. These are the Government's fiscal policy (its spending behaviour), its monetary policy (how much money the Reserve Bank permits to circulate within the economy at any given time), the interest rate level (the cost of borrowing money on the domestic money market) and the inflation rate.

The following table shows the estimated movements in farmgate prices for a 10% movement in trade-weighted exchange rates for a range of commodities. This movement in exchange rates effectively gives the same result as a price change at f.o.b.*.

In general the greater the processing and handling charges between the farm gate and f.o.b. as a proportion of the f.o.b. price the greater the impact of exchange rate movements in farm gate prices. Products such as wool, where the proportion of the value added between farm and ship is low relative to other pastoral products, show the least leveraged effect of exchange rate movements. Mutton at the other extreme shows the highest leveraged effect.

In times of currency volatility, low added value products minimise exposure to appreciation of the currency, but minimise potential gains to producers from a currency depreciation.

** f.o.b. - Free on Board (ship or aeroplane)*

Farm Gate Prices - Effect of a 10% Movement in Trade Weighted Exchange Rates.

	Depreciation	Appreciation
Wool	+12%	-10%
Lamb	+18%	-15%
Mutton	+24%	-20%
Beef	+14%	-12%

Note: The figures assume the appreciation or depreciation is effective for the whole season. Fluctuations of lesser duration will have lesser effects.

Source: The Economic Service.

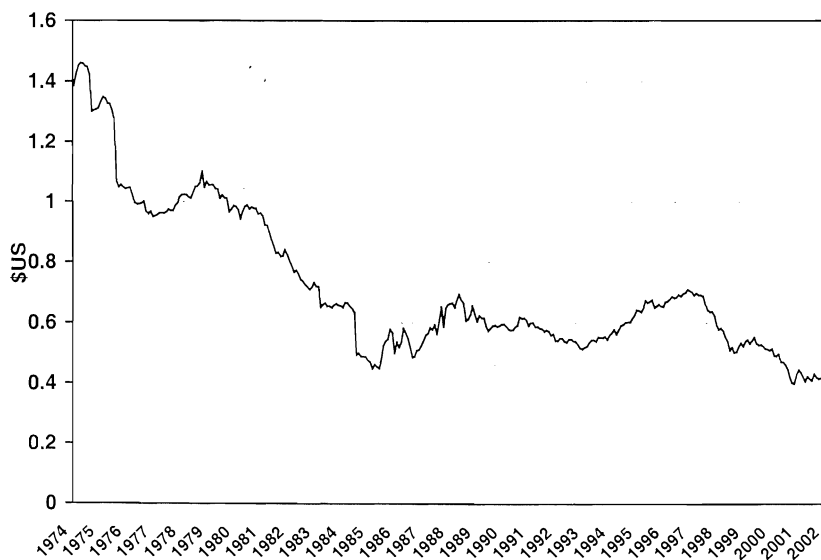
1.1.2 Exchange Rate

(i) Major Currencies and TWI to \$NZ (2001)

2001	USA	UK	Aust	Japan	Euro	TWI
Jan	0.4444	0.3006	0.7998	51.93	0.4734	51.1
Feb	0.4351	0.2996	0.8143	50.59	0.4726	50.6
Mar	0.4199	0.2904	0.8309	50.84	0.4610	49.9
Apr	0.4066	0.2834	0.8128	50.39	0.4553	48.8
May	0.4221	0.2957	0.8107	51.46	0.4816	50.4
Jun	0.4148	0.2960	0.7999	50.72	0.4858	50.0
Jul	0.4087	0.2889	0.8014	50.87	0.4752	49.4
Aug	0.4306	0.2997	0.8211	52.35	0.4782	51.0
Sep	0.4198	0.2869	0.8280	49.86	0.4605	49.6
Oct	0.4141	0.2850	0.8210	50.20	0.4567	49.2
Nov	0.4163	0.2896	0.8057	50.92	0.4687	49.6
Dec	0.4157	0.2886	0.8080	52.80	0.4655	49.9
Jan 2002	0.4246	0.2963	0.8211	56.36	0.4804	51.5

Source: Reserve Bank.

(ii) \$US to \$NZ (1974 to 2002)



Source: Reserve Bank.

(iii) Annual Averages - Major Currencies and TWI to \$NZ (1990 to 2001)

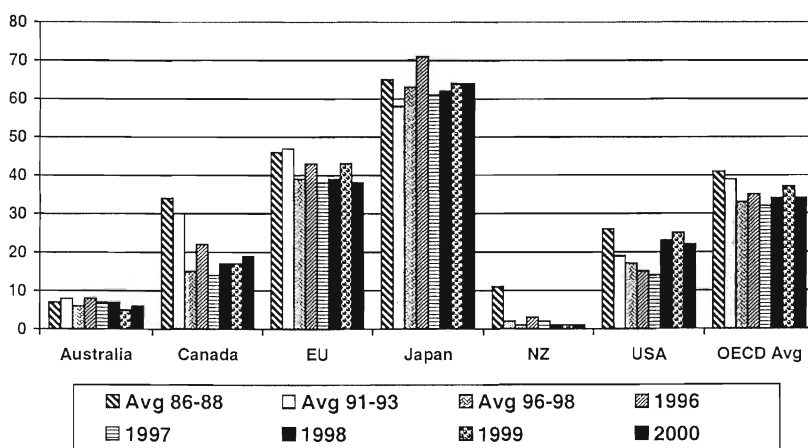
Average for Period	USA	UK	Aust	Japan	Euro	TWI
1990	0.5973	0.3347	0.7644	86.27	-	60.5
1991	0.5791	0.3287	0.7431	77.95	-	57.8
1992	0.5382	0.3060	0.7324	68.25	-	53.8
1993	0.5413	0.3605	0.7978	59.95	-	54.8
1994	0.5940	0.3877	0.8115	60.57	-	57.2
1995	0.6564	0.4158	0.8858	61.71	-	61.1
1996	0.6872	0.4406	0.8784	74.69	-	65.4
1997	0.6622	0.4043	0.8907	80.02	-	66.2
1998	0.5358	0.3234	0.8520	70.10	-	58.1
1999	0.5296	0.3274	0.8206	60.33	0.4961	56.9
2000	0.4574	0.3011	0.7847	49.25	0.4941	51.4
2001	0.4207	0.2921	0.8129	51.09	0.4698	49.96

Source: Reserve Bank.

1.1.3 Government Support to Farmers

Producer Subsidy Equivalents (PSEs) are the OECD's measure of government support to farmers. Calculation of PSEs involves estimating the effects on farm incomes of such diverse policy instruments as import barriers and price supports, and aggregating all these effects into a single measure, expressed as a proportion of farmers' incomes.

Producer Subsidy Equivalents (PSEs) All Products



Source: Ministry of Agriculture and Forestry.

1.2 SHEEP

1.2.1 Lamb Schedule (Export)

Meat which is destined for export is graded by *Meat New Zealand*. The various grades are paid for according to Works' schedules, which are set every week during the killing season. Below is a schedule from a meat company for a week in January 2002. This information is usually available, in summary form each week, in a range of newspapers and farming journals.

Weight (kg)	Grade	\$/kg carcass weight	Weight	Grade	\$/kg carcass weight
9.0	A	2.10	17.0	YM	4.03
11.0	YL	2.55	17.0	PM	3.94
13.0	YL	2.74	18.0	YX	3.74
13.0	PL	2.65	18.0	PX	3.65
13.5	YM	3.42	19.0	YX	3.74
13.5	PM	3.33	19.0	PX	3.65
14.0	YM	3.42	19.0	TH	3.40
14.0	PM	3.33	19.0	FH	2.90
15.0	YM	3.98	21.0	YX	3.52
15.0	PM	3.89	21.0	PX	3.43
15.0	TM	3.40	22.0	YX	3.12
15.0	FM	2.90	22.0	PH	3.03
15.0	CM	2.30	23.0	YX	3.12
16.0	YM	3.98	23.0	PH	3.03
16.0	PM	3.89	Pelt 0.5kg	5.90	

Note: The net lamb values shown above are calculated after deducting all killing charges and levies. Premiums and processing rebates have been added where applicable. Farm to works transport is not included. Spot premiums above the announced prices are sometimes paid.

1.2.2 Lamb Price Trends

(i) Average prices paid for *PM lamb (13.3-17.0kg)*; and lamb "*All Grades Average*":

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01p
PM (\$/head)	\$38.01	\$43.98	\$39.53	\$41.44	\$48.67	63.60
This price comprises:						
- Baremeat schedule (c/kg)	200.60	238.40	221.40	243.40	288.6	367.4
- Pelt and wool (\$/hd)	\$7.10	\$7.00	\$5.31	\$3.64	\$3.39	\$5.70
"All Grades Average"	\$36.54	\$44.20	\$39.23	\$41.82	\$49.85	63.66

Notes: 1. Prices are at works, for year ended 30 September.

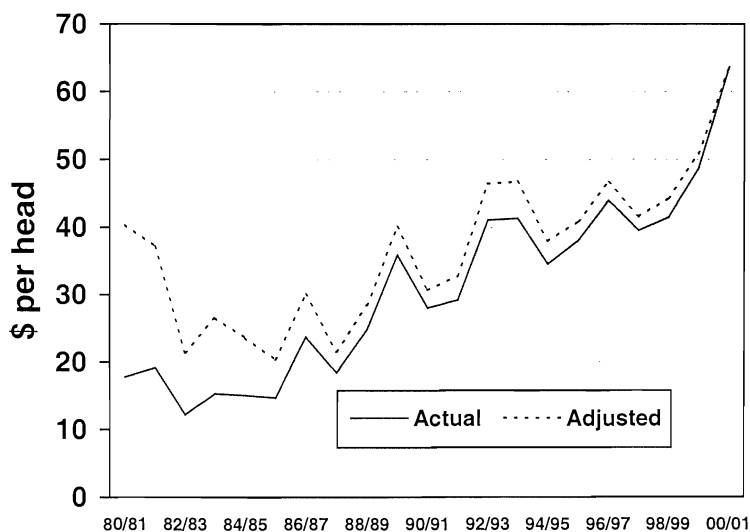
2. p = provisional.

3. Figures may not add due to rounding.

Source: *The Economic Service*.

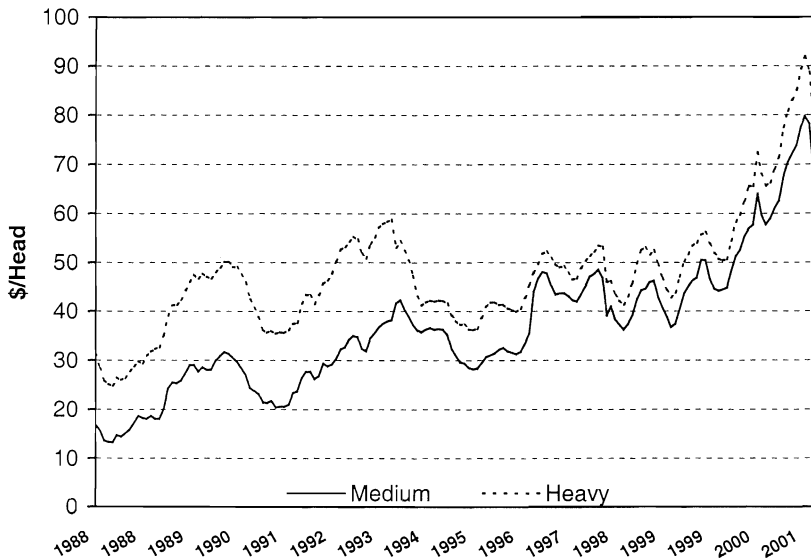
(ii) **Actual and Inflation Adjusted Lamb Prices, 1980 to 2001.**

(PM Lamb Price - September year)



Source: *The Economic Service*.

- (iii) Average net export price paid for heavy and medium lambs with a 1 kg woolly pelt (monthly averages, January 1988 to January 2002).



Note: Until October 1993 categories were 13.5kg and 21kg. From November 1993 to June 1996 weights were 14kg and 18kg and from July 1996 onwards weights were 15kg and 18kg.

Source: "N.Z Farmer" Issues January 1988 to April 2001, Meat Matters

(iv) Prime Lamb/Hogget Prices - Local Trade

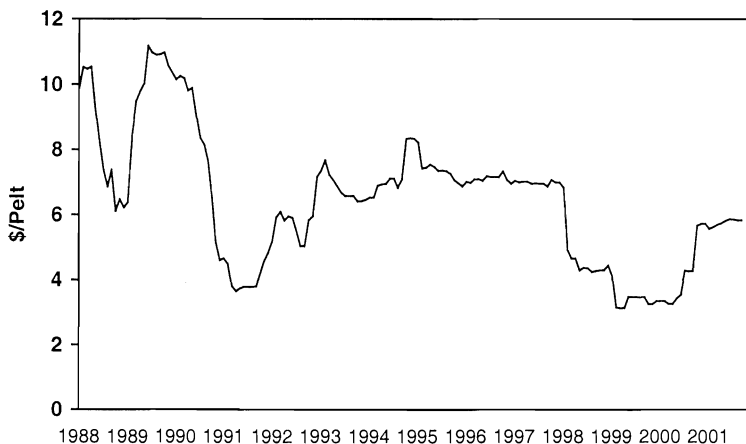
(See Section 1.2.10)

(v) Store Lamb Prices

(See Section 1.2.11 (i))

1.2.3 Lamb Skin Price Trends 1988 to 2001

The graph shows the "at works" price for lamb skins (including 1 kg wool pull).



Source: The Economic Service.

1.2.4 Contract Lamb Prices

(i) AFFCO Lamb Plan 2002

The *AFFCO* Lamb Plan 2002 has been developed to provide farmers with competitive and consistent pricing for their annual lamb supply. The plan's focus is on simplicity, with payment in full being made at slaughter.

To participate, suppliers must consign a minimum of fifty lambs at any one time.

Suppliers are not required to make a written commitment when entering *AFFCO* Lamb Plan 2002. The success of the plan is based on the close working relationship between the farmer and the *AFFCO* Livestock buyer.

This plan also recognises farmer commitment to the *AFFCO* Farm Assurance programme, by paying additional rewards for accredited supply on a week-by-week basis.

Business Renewal Reward

AFFCO Lamb Plan 2002 recognises farmer loyalty with a 10c per kg Business Renewal Reward based on the following conditions:

- The per kg reward is calculated on the lesser of the number of lambs slaughtered in the current year, compared with the number of lambs slaughtered last year.
- Supplying an equal number of stock in the *AFFCO* Lamb Plan 2002 as slaughtered under a Futures contract last year.
- Manufacturing and condemned lambs slaughtered in either season do not qualify for the reward.

AFFCO Select Lamb Programme

The *AFFCO* Select Lamb programme meets the demands of the international market for traceability of meat products from the dinner plate back to the farm gate, traceability endorsed by *AFFCO*. In return for meeting these demands and standards *AFFCO* Select Lamb suppliers will have access to the world's premier markets and will be paid additional premiums from time to time. Features of this programme include:-

- Accreditation of the supplier's farm to internationally recognised standards, undertaken by *Assure NZ*.
- Regular auditing of Accredited Farms undertaken by *AgResearch*.

Farm Assurance

Suppliers who are accredited members of the *AFFCO* Select programme will receive, at the time of slaughter, any additional premiums that may be paid on a week-on-week basis. These premiums are paid to meet the demands of key customers in Japan, the USA and the Middle East.

AFFCO Lamb Plan 2002 suppliers receive priority of slaughter space at all times.

(ii) *Richmond*

***Richmond* Spring Lamb Contract 2001**

Specification criteria:

Year 2001 lamb birth date and classified as lamb per *Meat New Zealand* Lamb Definition.

GR up to and including 15mm and carcass weight 13.3 kg to 19.0 kg.

Classification grades YM1, YM2, YX1, PM1, PM2, TM1, TM2 and TH1.

Stock arrival condition either A or B as defined by *Richmond*.

A minimum of 50 lambs for the entire contract period.

Must not be detained or have any defect.

All lambs must meet the *Richmond* Farm Assurance accreditation standards.

Qualifying lambs will be paid on the basis of the applicable *Richmond* Farming Markets Supply option, with a supplementary payment as follows:

Week commencing	Supplementary Payment (cents per kg)
30 th September 2001	55
7 th October	50
14 th October	45
21 st October	40
28 th October	30

Lambs which fail to meet the contract specifications and conditions will be paid at the applicable *Richmond* Farming for Markets supply plan option rates only.

All lambs supplied on this contract will qualify for the end of season volume-based bonus payment, drafting fee (when applicable) and Farm Assurance bonus.

Premier Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative and supplying all stock owned and sold for slaughter within an export-processing season to *Richmond*. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- There is no set minimum for stock units.
- This supply option must be joined before 31 December 2001.
- A Commitment Bonus of a minimum payment of 8 cents per kilogram over the operating price, on qualifying grades will be made to farmers operating under the Premier Supply Commitment.
- Volume Bonus payments do apply depending on the volume supplied. This bonus is only payable on stock supplied on graded operating price terms.
- A Drafting Fee of 2.5 cents per kilogram carcass weight for lamb is payable.
- Advance booking – Premier suppliers may pre-book stock for Saturday/Sunday/Monday kill at least three weeks in advance. A drafting fee where applicable is guaranteed for pre-booked stock if other requirements are met.
- Premier suppliers will have preferential access to specific market related contracts. These contracts may or may not include supply plan bonuses, but will count towards end of season bonuses.
- Premier suppliers have preferential access to available processing space for all stock, including cull ewes.
- Faxed or emailed changes to weekly operating prices, together with a brief summary of market movements and outlook are provided. Interim invoices showing grade mix, average weight, woolpull and average price will be placed on the *Richmond* website within one working day.
- Free StockTrace™ membership
- Preferential invitations to supplier meetings, market presentations and other *Richmond* promotional activities.

Specified Volume Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative or indirectly via a *Richmond* approved third party stock firm or independent agent, who enter into an agreement to supply a specified volume of livestock within an export processing season to *Richmond*. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- A minimum of 500 stock units.
- A Commitment Bonus minimum payment of 3 cents per kilogram over the operating price on qualifying grades, will be made to farmers operating under this Commitment.

- Additional Volume Bonus payments do apply depending on the volume supplied. This bonus is only payable on stock supplied on graded operating price terms.
- This supply option can be joined at any time during the season but at least two weeks notice of confirmed booking is required prior to every consignment.

Defined Species Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative or indirectly via a *Richmond* approved third party stock firm or independent agent, who enter into an agreement to supply all of a particular species of livestock within an export processing season to *Richmond*. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- A minimum of 500 stock units.
- This supply option must be joined before 31 December 2001
- A Commitment Bonus of a minimum payment of 5 cents per kilogram over the operating price, on qualifying grades will be made to farmers operating under the Defined Species Supply Commitment
- Additional Volume Bonus payments do apply depending on the volume supplied. This bonus is only payable on stock supplied on graded operating price terms.
- A Drafting Fee of 2.5 cents per kilogram carcass weight for lamb is payable.
- Defined Species suppliers will have access to any specified market related contracts for the species they commit to *Richmond*.
- Faxed or emailed changes to weekly operating prices, together with a brief summary of market movements and outlook are provided. Interim invoices showing grade mix, average weight, woolpull and average price will be placed on the *Richmond* website within one working day.

General Conditions

Stock proceeds including any drafting fee which is due, will be paid within 14 days of processing by direct bank transfer to the suppliers nominated bank.

A two part bonus is payable on total carcass weight for qualifying grades as follows:

- Y,P T grade lambs

Payment is made up of :

- The cents per kilo carcass weight bonus applicable to the commitment option paid within 14 days of processing.
- An end of season supply bonus for total qualifying grades.

***Richmond* Farm Assurance**

A Farm Assured reward of 4 cents per kilogram carcass weight on qualifying grades of stock supplied on graded operating price terms is payable. All stock needs to be delivered from a certified *Richmond* Farm Assured property. Suppliers must declare all *Richmond* Farm Assured stock on the Animal Status Declaration Form to be eligible for this reward.

1.2.5 Live Lamb and Sheep Shipments

In 2001 there were 36,000 sheep sent to Saudi Arabia from New Zealand, of which 8,000 were Awassi sheep. But Australia is able to export more and be more competitive as they are closer. Details of contracts are strictly confidential, however prices in 1999 averaged approximately \$50 per sheep (2 year old) but this was subject to variation. It is likely that these will continue but in limited numbers and with very closely defined stock specifications. Contracts are likely to be negotiated on an individual basis and will remain confidential between the supplier and exporter. In 1998/99 similar numbers were exported as in 1999/00, at the same return to the producer.

In the longer term, it is expected that greater numbers of Awassi (an Arabic breed) cross bred sheep will be available for export. The first shipment, consisting of 2,500 of these animals, occurred in April 1996. It is anticipated that Saudi Arabian demand for these sheep will be greater than for traditional New Zealand breeds.

In recent years the live lamb and sheep trade encountered difficulties in areas of animal welfare and co-ordination between exporters and importers. In October 1995, dissatisfaction from industry participants resulted in the Ministry of Agriculture establishing a set of principles to govern the trade from New Zealand to the Kingdom of Saudi Arabia.

1.2.6 Slink Skins

Prices paid by a North Island firm and *Slink Skins Ltd* in the South Island for lamb slink skins were 75c in 2001, 65c in 2000, compared with 50c in 1998/99. These prices are much lower than the previous four seasons (1994 to 1997) when prices ranged from \$1.50 to \$2.00 per skin.

1.2.7 Mutton Schedule (Export)

The mutton schedule works in the same way as for lamb (refer to *Section 1.2.1*). Below is a schedule from a meat company for a week in January 2002. These are net prices offered to farmers for the various mutton grades. This information is usually available, in summary form each week, in various newspapers and farming journals.

Weight	Grade	Schedule Price
19.0	MX1	144 cents per kg
19.0	ML1	140 cents per kg
21.0	MX1	144 cents per kg
21.0	ML1	140 cents per kg
24.0	MX2	136 cents per kg
24.0	ML2	132 cents per kg
25.0	ML2	132 cents per kg
25.0	MH	95 cents per kg
Pelt	0.02 kg	5.50 cents per kg

1.2.8 Contract Ewe Prices

Richmond

Premier Supply Commitment

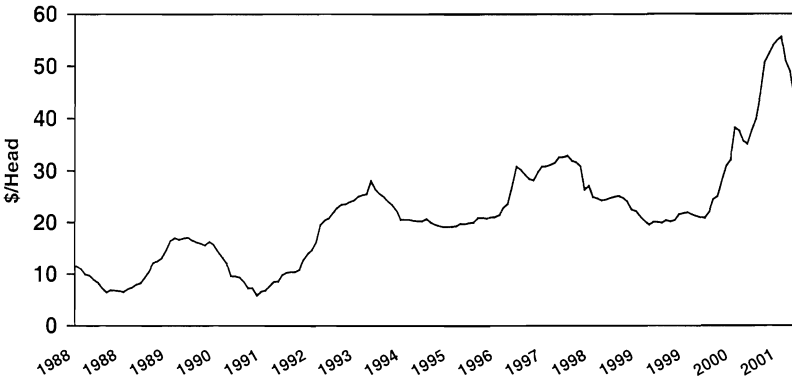
For details of this contract see *Section 1.2.4 (Richmond Lamb Contracts)*.

A two-part bonus is payable on total carcass weight for qualifying grades (ML, MX and MH grade ewes). This includes the bonus applicable to the option chosen, plus an end of season supply bonus for total qualifying grades.

The Specified Volume Supply Commitment and Defined Species Supply Commitment options offered by *Richmond* for lamb are also available for mutton - see *Section 1.2.4* for details.

1.2.9 Mutton Price Trends (Export)

(i) Net Value of a 21kg Ewe with a 0.3kg Pelt (January 1989 to January 2002)



Source: N.Z. Farmer Issues January 1988 to April 2001, *Meat Matters*.

(ii) Average Prices Paid for 18kg Mutton; and "All Grades Average"

Prices are at works, for year ended 30 September. (p = provisional)

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01p
<i>MX1 Mutton < 22kg</i>	\$24.79	\$31.51	\$28.29	\$23.54	\$25.56	39.64
<i>This price comprises:</i>						
- Baremeat schedule (cents per kg)	92.20	127.00	119.00	101.10	113.6	173.2
- Pelt and wool (\$/hd)	\$6.89	\$6.76	\$5.11	\$3.72	\$3.18	\$5.45
<i>"All Grades Average"</i>	\$24.22	\$32.23	\$29.43	\$23.82	\$26.27	42.16

Source: *The Economic Service*

1.2.10 Sheep Prices - Prime Stock (Local Sales)

A large amount of meat is sold directly from farms to wholesale buyers, but the prime stock auction sales in main centres still set the market. The current situation can be determined from the weekly stock sale reports in the newspapers. The following information should be used as a guide only.

Sales Information (three main sale centres) 2001:

Prices represent ranges from the prime sales at each centre over a two-month period.

	Tuakau		Stortford		Canterbury	
	Low	High	Low	High	Low	High
Jan/Feb						
Lambs	\$36.66	\$75.24	\$44	\$78	\$42	\$75
Hoggets	\$34.50	\$46.33	\$38	\$73	\$40	\$65
Ewes	\$10.05	\$47.66	\$10	\$65	\$15	\$40
Mar/Apr						
Lambs	\$46.50	\$85.66	\$51	\$83	\$47	\$71
Hoggets	\$48.25	\$56.18	\$35	\$68	\$50	\$60
Ewes	\$17.72	\$58.33	\$20	\$66	\$25	\$48
May/June						
Lambs	\$53.31	\$96.00	\$65	\$100	\$75	\$90
Hoggets	\$46.00	\$59.66	\$42	\$61	\$48	\$65
Ewes	\$8.25	\$67.56	\$20	\$76	\$30	\$60
July/Aug						
Lambs	\$52.55	\$113.27	\$44	\$128	\$70	\$115
Hoggets	\$62.50	\$79.75	\$59	\$80	\$50	\$70
Ewes	\$20.11	\$77.11	\$26	\$90	\$40	\$65
Sept/Oct						
Lambs	\$56.33	\$124.27	\$65	\$127	\$70	\$117
Hoggets	\$72.00	\$86.28	\$60	\$108	\$45	\$70
Ewes	\$24.44	\$78.77	\$20	\$91	\$45	\$77
Nov/Dec						
Lambs	\$49.28	\$96.00	\$62	\$97	\$45	\$90
Hoggets	\$46.14	\$87.35	\$41	\$107	\$42	\$68
Ewes	\$14.57	\$78.78	\$20	\$79	\$34	\$70

Note: The price range is the lowest priced stock (of each type, over a number of sales) and the highest priced stock, respectively.

Source: *Wrightson Livestock*.

1.2.11 Sheep Prices - Store and Breeding Stock

Note: This information should be used as a guide only, as store and breeding sheep prices may vary markedly between districts, seasons and breeds.

(i) Average Prices for Store Stock (N.Z. Regions) 1993 to 2001

Store Lambs

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
	\$	\$	\$	\$	\$
1993/94	26.62	27.46	29.72	34.92	41.59
1994/95	21.74	22.96	19.54	27.11	27.36
1995/96	22.42	25.70	24.27	27.94	27.01
1996/97	30.25	34.42	35.30	31.91	33.27
1997/98	25.87	26.09	28.51	28.80	29.64
1998/99	29.16	32.72	36.08	27.34	30.75
1999/00	36.84	35.47	40.46	34.91	36.57
2000/01p	49.89	52.76	59.54	45.24	43.08

Store Two-Tooth Ewes

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
	\$	\$	\$	\$	\$
1993/94	48.55	51.34	42.43	53.65	58.09
1994/95	34.09	39.44	32.96	42.40	48.82
1995/96	39.17	49.10	37.47	49.32	66.85
1996/97	52.80	60.59	57.65	63.77	72.91
1997/98	57.73	53.80	55.58	59.12	54.06
1998/99	54.24	54.31	47.95	57.25	-
1999/00	54.18	60.89	62.35	67.29	86.11
2000/01p	78.87	74.99	76.46	83.58	-

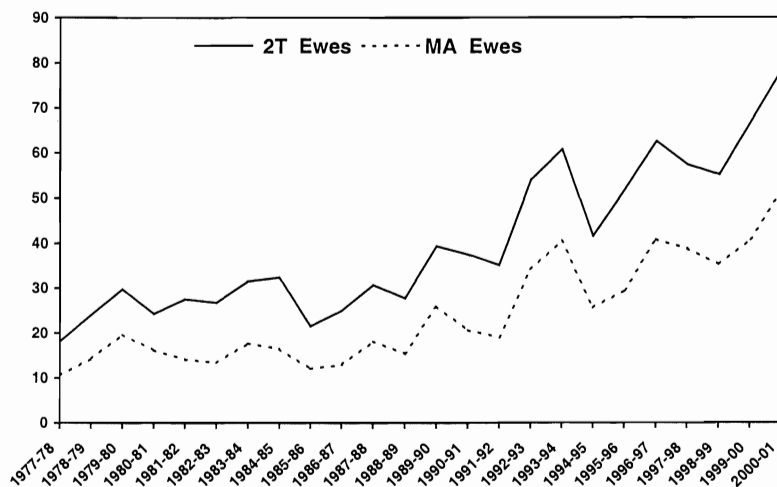
Store Mixed Age Ewes

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
	\$	\$	\$	\$	\$
1993/94	35.50	34.54	34.95	35.44	38.34
1994/95	23.12	25.60	244.89	24.70	31.15
1995/96	27.67	30.98	30.94	27.82	31.99
1996/97	40.63	44.15	45.11	37.25	40.60
1997/98	36.42	41.14	40.81	36.38	39.75
1998/99	37.52	36.76	38.24	30.50	44.26
1999/00	38.82	39.81	40.54	38.26	52.71
2000/01p	56.70	51.64	54.63	46.76	56.27

p = provisional

Source: The Economic Service.

(ii) N.Z. Average Purchase Price for MA Ewes and two-tooths (1977 to 2001)
(\$ per head - All Regions Average)



Note: 2000-01 figures are provisional.

Source: The Economic Service.

1.3 WOOL

1.3.1 Wool Market Prices

(Clean Market Price - cents per kg)

Date	13/12/01			19/12/01
Centre	Napier/Chch			Napier /Chch
Fine Segment Indicator	1218			-
Medium Segment Indicator	609			635
Strong Segment Indicator	406			412
Lamb Segment Indicator	395			440
NZ\$/US\$ rate	0.4202			0.4167
NZ\$/AU\$ rate	0.8095			0.8105
WTWI	92.1			92.2
Diameter micron	Colour (Y/Z)	Length (mm)		
Merino				
18 Fleece	1.0	80	1675	-
19 Fleece	1.0	80	1250	-
21 Fleece	1.0	85	910	-
23 Fleece	1.0	90	-	-
21 Pieces	2.5	75	-	-
21 Bellies	2.5	75	745	-
Halfbred and Corriedales				
25 Fleece	2.0	90	800	-
27 Fleece	2.0	95	700	-
29 Fleece	2.0	100	665	-
31 Fleece	2.0	105	-	-
28 Pieces	4.5	85	-	-
28 Bellies	4.5	85	-	515
28 Lox	4.0	50	-	340
28 Crutchings	3.5	50	322	-
Crossbred Full Fleece				
32 Fleece	3.5	115	520	508
33 Fleece	3.5	115	474	474
34 Fleece	3.5	115	430	446
35 Fleece	3.5	125	436	436
35 Fleece	5.5	125	-	402
36 Fleece	3.5	125	430	430
36 Fleece	5.5	125	-	399
37 Fleece	3.5	125	424	427
37 Fleece	5.5	125	385	392
39 Fleece	2.5	125	414	423
35 Pieces	8.5	100	360	357
35 Bellies	9.5	100	364	355
35 Lox	9.5	50	305	310
35 Crutchings	5.0	65	-	345

Crossbred Second Shear				
37 shear	3.5	100	398	410
37 shear	5.5	100	-	395
37 shear	3.5	85	395	403
37 shear	5.5	85	-	-
37 shear	5.5	75	-	-
37 shear	3.5	65	371	380
37 shear	2.5	100	404	-
35	8.0	65	322	330
Bellies/Piece				
Lambswool				
28 Lambs	2.0	50	364	400

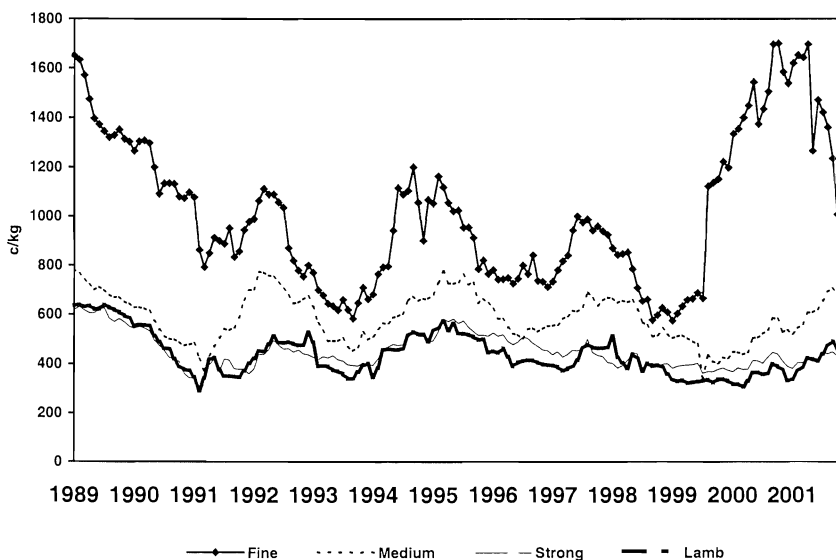
Source: WoolPro

1.3.2 Wool Price Trends

(i) Price Indicators 1988 to 2001

Price trends for the four main segments of the New Zealand clip are shown on the graph:

Fine = 18 to 24 micron; Medium = 25 to 31 micron; Strong = 32 to 41 micron



Source: The Economic Service.

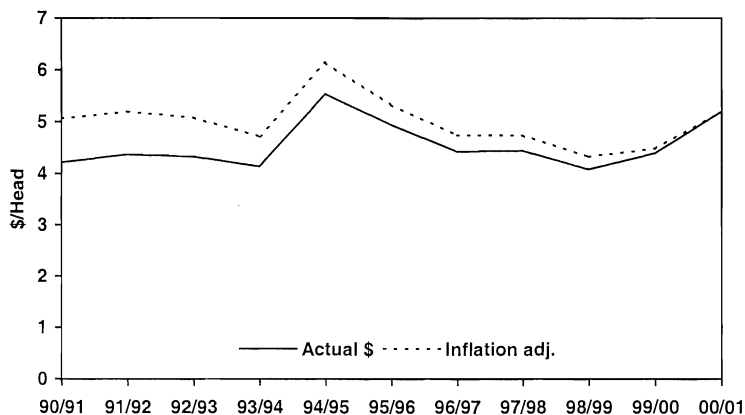
(ii) Wool Market Indicator Prices

(cents per kilogram clean)			
	Fine	Medium	Strong
1992-93	750	507	376
1993-94	727	511	372
1994-95	1,230	437	464
1995-96	787	598	456
1996-97	806	489	393
1997-98	1,047	551	356
1998-99	737	432	362
1999-00	1109	402	369
2000-01p	1543	519	405
2001-02e	1098	598	384

p = provisional e = estimate

Source: *The Economic Service*.

(iii) Actual and Inflation Adjusted Clean Wool Price



(Average Auction Price 1990 to 2001 - year ended June).

Source: *WoolPro*.

1.4 CATTLE

1.4.1 Beef Schedule (Export)

The beef schedule works in the same way as for sheep (refer to *Section 1.2.1*).

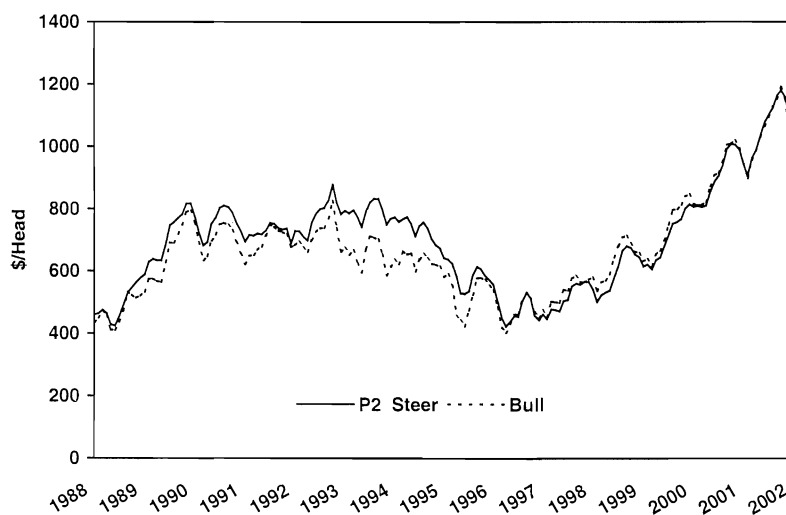
Below is a schedule of net prices (cents per kg) for a week in January 2002 from a meat company. All charges and levies have been deducted. This information is usually available in summary form each week, in various newspapers and farming journals.

Grade	Weight Range (kg)	Net Price in cents per kg
L2 Steer	196 to 220	279
	221-245	291
	246-270	312
	271-295	327
P2 Steer	196-220	351
	221-245	365
	246-270	371
	271-295	374
	296-320	377
	321-345	377
	346+	372
T2 Steer	246-270	355
	271-295	358
	296-320	361
	321-345	361
	346+	345
F2 Steer	271-295	270
	296-320	271
	321-345	271
	346+	271
P2 Heifer	171-195	291
	196-220	346
	221-245	365
	245-270	366
	271-295	367
P2 Cow	196-220	290
	220-245	300
	245-270	305
	271-295	315
M Cow	146-170	295
	171-195	296
	196-220	312
	221-245	312

Grade	Weight Range (kg)	Net Price in cents per kg
M2 Bull	196-220	311
	221-245	332
	245-270	346
	270-295	351
	296-320	359
	321-345	361
	346+	358
TM2 Bull Discount		-
Bull Muscling 1 Premium		-
Bull Muscling 3 Discount		-

1.4.2 Beef Price Trends (Export)

(i) Net Price paid for 280 kg P2 Steer and 260 kg Bull (Jan. 1988 to Jan. 2002)



Source: "N.Z. Farmer" Issues January 1988 to April 2001, Meat Matters.

(ii) Cow Beef Schedule

(145-170 kg)	94/95	95/96	96/97	97/98	98/99	99/00	00/01p
<i>Cow M Grade</i> (cents/kg)	157	120	139	179	200	261	324
<i>Cow M Grade</i> (Average \$/hd)	\$249	\$190	\$221	\$284	\$316	\$413	\$513

Prices are at works, for year ended 30 September. p = provisional

Source: *The Economic Service*.

(iii) Bull Beef Schedule

(270-295 kg)	94/95	95/96	96/97	97/98	98/99	99/00	00/01p
<i>Bull Grade</i> (cents/kg)	221	184	187	229	263	325	373
<i>Bull Grade</i> (average \$/hd)	\$626	\$519	\$529	\$647	\$742	\$919	\$1054

Prices are at works, for year ended 30 September. p = provisional

Source: *The Economic Service*.

1.4.3 Beef Contracts and Pools

See also *Sections 1.5.7 and 1.5.8*

(i) *AFFCO*

***AFFCO* Beef Plan 2002.**

The *AFFCO* Beef Plan 2002 has been developed to provide farmers with competitive and consistent pricing for their prime and bull supply. The plan's focus is on simplicity, with payment in full being made at slaughter. To participate, suppliers must consign a minimum of five prime or five bulls at any one time. Suppliers are not required to make a written commitment when entering *AFFCO* Beef Plan 2002. The success of the plan is based on the close working relationship between the farmer and the *AFFCO* Livestock buyer.

AFFCO Beef Plan 2002 also recognises farmer commitment to the *AFFCO* Farm Assurance programme, by paying additional rewards for accredited supply on a week-by-week basis.

Business Renewal Reward

AFFCO Beef Plan 2002 recognises farmer loyalty with a 5 cents per kilogram Business Renewal Reward, based on the following conditions:

- The per kilogram reward is calculated on the lesser of the number of cattle slaughtered in the current year, compared with the number of cattle slaughtered last year.
- The reward is also available to suppliers who commit the same number of cattle to *AFFCO* Beef Plan 2002 as slaughtered under a Futures contract in the previous year.
- Condemned cattle slaughtered in either season do not qualify for the reward.

***AFFCO* Select Beef Programme**

The *AFFCO* Select Beef programme meets the demands of the international market for traceability of meat products from the dinner plate back to the farm gate, traceability endorsed by *AFFCO*. In return for meeting these demands and standards *AFFCO* Select Beef suppliers have access to the world's premier markets and are paid additional premiums from time to time. Features of this programme include:-

- Accreditation of the supplier's farm to internationally recognised standards, undertaken by *Assure NZ*.
- Regular auditing of Accredited Farms undertaken by *AgResearch*.

Farm Assurance

Suppliers who are accredited members of the *AFFCO* Select programme will receive at the time of slaughter, any additional premiums that may be paid on a week-on-week basis. These premiums are paid to meet the demands of key customers in Japan, the USA and the Middle East.

AFFCO Beef Plan 2002 suppliers receive priority of slaughter space at all times.

***AFFCO* Fixed Price Futures Contracts**

AFFCO continue to offer Fixed Price Futures Contracts on a bi-monthly and quarterly basis depending on species, for supply to meet key customer demand in existing and developing markets.

Minimum stock commitment is 10 cattle.

***AFFCO* Cow Pool 2002**

The *AFFCO* Cow Pool 2002 is specifically designed for dairy farmers, for details see *Section 1.5.9*.

(ii) *Richmond*

Richmond Fixed Price Bull Contract 2001

Specification criteria:

- Classified as bull by *Meat New Zealand* definition
- Bull classification grades BM and BTM
- Carcass weight 245.5kg to 345.0kg
- Payment based on the “benchmark price” as shown in the following table. Lighter and heavier carcass weights will be either discounted or appreciated according to the relative price differential for weight and grade at time of kill. (Applicable to contracts negotiated by November 29, 2001)

Note 1 Under this contract, bulls supplied are not eligible for Premier Supply Commitment Premiums or Specified Supply Commitment Premiums, however bulls will count towards end of season total stock units supplied.

Note 2 All bulls supplied on this contract will qualify for the drafting fee when applicable.

Note 3 Farm Assurance premiums are included in the total cents per kg price for cattle that meet the contract specification criteria.

Benchmark Price BM2 295.5kg to 320.0kg	
Week Commencing	Fixed Price (cents per kg)
2 nd December 2001	390
9 th December	380
16 th December	375
23 rd December	375
30 th December	375
6 th January 2002	375
13 th January	370
20 th January	370
27 th January	370
3 rd February	375
10 th February	380
17 th February	385
24 th February	395

Richmond Fixed Price Prime Steer Contract 2001

Specification criteria:

- Classified as Steer as per *Meat New Zealand* definition
- Classification grades L, P, and T as per *Meat New Zealand* definition.
- Carcass minimum weight 245.5kg.

- Payment based on the “benchmark price” as shown in the following table. Lighter and heavier carcass weights will be either discounted or appreciated according to the relative price differential for weight and grade at time of kill. (Applicable to contracts negotiated by November 23 2001)

Note 1 Under this contract, cattle supplied are not eligible for Premier Supply Commitment Premiums or Specified Supply Commitment Premiums, however cattle will count towards end of season total stock units supplied.

Note 2 All cattle supplied on this contract will qualify for the drafting fee when applicable.

Note 3 Farm Assurance premiums are included in the total cents per kg price for cattle which meet the contract specification criteria.

Benchmark Price P2 295.5kg to 320.0kg	
Week Commencing	Fixed Price (cents per kg)
30 th December 2001	395
6 th January 2002	385
13 th January	385
20 th January	385
27 th January	380
3 rd February	380
10 th February	375
17 th February	375
24 th February	375
3 rd March	380
10 th March	380
17 th March	385
24 th March	390

Premier Supply Commitment

- There is no set minimum for stock units.
- A Commitment Bonus of a minimum payment of 8 cents per kilogram over the operating price, on qualifying grades will be made to farmers operating under the Premier Supply Commitment.
- Volume Bonus payments do apply depending on the volume supplied. This bonus is only payable on stock supplied on graded operating price terms.
- A Drafting Fee of 1.4 cents per kilogram carcass weight for all cattle is payable.

For further details of this contract see *Section 1.2.4 (Richmond Lamb Contracts)*.

A two-part bonus is payable on total carcass weight for qualifying grades as follows: L, P and T grade steers and/or heifers; M and TM grade bulls; M, P and T grade cows. This includes the bonus applicable to the option chosen, plus an end of season supply bonus for total qualifying grades.

Specified Volume Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative or indirectly via a *Richmond* approved third party stock firm or independent agent, who enter into an agreement to supply a specified volume of livestock within an export processing season to *Richmond*. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- A minimum of 500 stock units.
- A Commitment Bonus minimum payment of 3 cents per kilogram over the operating price on qualifying grades, will be made to farmers operating under the Specified Volume Supply Commitment.
- Additional Volume Bonus payments do apply depending on the volume supplied. This bonus is only payable on stock supplied on graded operating price terms.
- This supply option can be joined at any time during the season but at least two weeks notice of confirmed booking is required prior to every consignment.

Defined Species Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative or indirectly via a *Richmond* approved third party stock firm or independent agent, who enter into an agreement to supply all of a particular species of livestock within an export processing season to *Richmond*. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- A minimum of 500 stock units.
- This supply option must be joined before 31 December 2001.
- A Commitment Bonus of a minimum payment of 5 cents per kilogram over the operating price, on qualifying grades will be made to farmers operating under the Defined Species Supply Commitment.
- Additional Volume Bonus payments do apply depending on the volume supplied. This bonus is only payable on stock supplied on graded operating price terms.
- A Drafting Fee of 1.4 cents per kilogram carcass weight for steer, heifer and bull is payable.

General Conditions

Stock proceeds including any drafting fee which is due, will be paid within 14 days of processing by direct bank transfer to the suppliers nominated bank.. A two part bonus is payable on total carcass weight for qualifying grades (L,P,T grade steers and/or heifers; M, TM grade bulls) as follows:

Payment is made up of :

- The cents per kilo carcass weight bonus applicable to the commitment option paid within 14 days of processing.
- An end of season supply bonus for total qualifying grades.

1.4.4 Calf Slink Skins

Prices paid by a North Island firm in 2001 were \$4.00 per skin for heavy skins, \$2.00 for medium skins and \$1.00 for small skins. *Slink Skins Ltd* (South Island) paid \$5.00 for large skins and \$2.00 for small. In 2000 North Island heavies were \$3.50, South Island large were \$5.00, with both medium and small skins being worth \$1.00, in both islands. The North Island 1999 price was \$3.00 for heavy skins and \$1.00 for both medium and small skins. The price received in the South Island was \$5.00 per skin for large skins and \$1.00 for medium and small skins.

1.4.5 Cattle Prices - Prime Stock (Local Sales)

Sales Information (Stortford and Canterbury) 2001:

Prices represent ranges from the sales at each centre over a two-month period.

	Stortford		Canterbury	
	Low	High	Low	High
Jan/Feb				
Steers	180	196	171	180
Heifers	152	184	153	160
Cows	142	174	115	145
Mar/Apr				
Steers	185	203	175	185
Heifers	146	197	170	179
Cows	126	169	116	148
May/June				
Steers	186	212	181	190
Heifers	148	200	175	182
Cows	120	178	132	150
July/Aug				
Steers	180	228	210	220
Heifers	171	229	-	-
Cows	110	180	129	160
Sept/Oct				
Steers	220	248	215	229
Heifers	200	244	210	215
Cows	160	207	120	168
Nov/Dec				
Steers	221	233	200	220
Heifers	180	228	175	195
Cows	145	200	130	160

Note: The price range is the lowest priced stock (of each type, over a number of sales) and the highest priced stock, respectively.

Source: *Wrightson Livestock*.

1.4.6 Store and Breeding Cattle Prices

The following tables are a guide to the average prices paid for store and breeding cattle throughout the country.

(i) Average Prices for Store Stock (N.Z. Regions) 1992 to 2001

Store 2.5 Year Steers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
1992/93	713	682	677	606	-
1993/94	719	717	691	786	607
1994/95	638	629	599	261	402
1995/96	520	406	404	452	-
1996/97	443	405	371	418	282
1997/98	503	513	458	468	-
1998/99	551	547	502	452	-
1999/00	685	659	726	714	-
2000/01p	890	871	861	925	-

Store 1.5 Year Steers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
1992/93	521	580	548	580	582
1993/94	551	554	565	611	583
1994/95	415	437	437	472	379
1995/96	312	327	295	334	267
1996/97	357	351	338	336	294
1997/98	365	417	380	344	259
1998/99	393	456	418	366	339
1999/00	548	613	555	589	470
2000/01p	716	778	771	676	547

Store Weaner Steers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
1993/94	291*	418	331	393	385
1994/95	225*	258	231	299	362
1995/96	164*	204	155	230	221
1996/97	233	277	223	241	198
1997/98	227	255	226	210	201
1998/99	296	307	278	297	277
1999/00	379	459	468	466	334
2000/01p	506	558	534	623	427

* Prices influenced significantly by the sale of bobby calves.

Store Weaner Heifers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
1993/94	224	293	290	352	353
1994/95	188	185	209	217	237
1995/96	88	236	114	170	225
1996/97	164	177	169	219	206
1997/98	154	140	169	146	213
1998/99	152	190	196	207	195
1999/00	327	325	350	367	283
2000/01p	425	407	441	316	466

Store 1.5 year Heifers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
1993/94	442	484	444	542	493
1994/95	335	361	306	329	282
1995/96	259	283	207	289	356
1996/97	279	306	216	206	400
1997/98	288	308	271	277	246
1998/99	354	380	286	341	234
1999/00	392	517	479	510	436
2000/01p	560	632	559	668	595

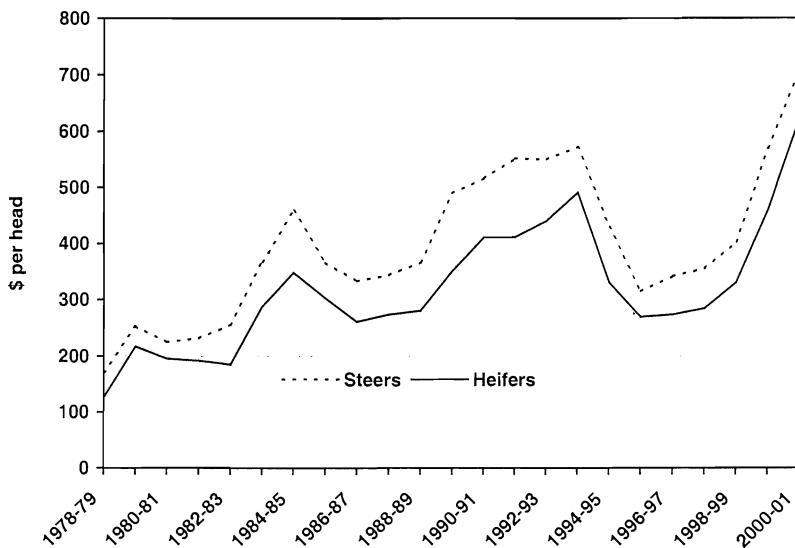
Store Cows (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
1993/94	503	640	516	569	639
1994/95	439	347	352	610	685
1995/96	308	323	347	357	360
1996/97	306	356	344	379	-
1997/98	359	310	395	362	224
1998/99	487	454	372	361	345
1999/00	522	632	669	476	578
2000/01p	729	824	860	772	627

p = provisional

Source: The Economic Service.

(ii) N.Z. Average Purchase Price for 18 Month Steers/Heifers (1978 to 2001)



Note: 2000-01 figures are provisional

Source: The Economic Service.

1.4.7 T.B. Compensation

Subject to certain criteria, compensation is payable to the owners of cattle classified as TB reactors. For all TB cattle reactors, compensation will be payable at a rate of 65% of the fair market value of each reactor animal, up to the maximum allowable. Fair market values are quoted as monthly averages and may change depending on the season. As a guide only, fair market values in November 2001 were as follows.

			\$/head
Beef	Weaner cattle	Up to 1 year	625
	Beef breeding cattle	1 to 2 years	1085
	“ “ “	2 years +	1610
	Steers and non-breeding bulls	1 to 2 years	1375
	“ “ “ “	2 years +	1800
	Breeding bulls		4500
Dairy Cattle	Seasonal supply	more than 2 years	1375
		1 to 2 years	1230
		6 weeks to 1 year	470
	Town supply	more than 2 years	1713
		1 to 2 years	1538
		6 weeks to 1 year	588

No TB reactor compensation will be paid when:

- A farmer wishes to slaughter cattle which have been positive to an approved TB test and the animals are awaiting a retest, as directed by an Inspector or authorised person;
- An owner wishes to retain the meat from a TB reactor for home consumption;
- The owner has not complied with a legal directive to slaughter a TB reactor;
- Pathological evidence of TB is detected in non-reactor cattle at slaughter.

Source: Agri Quality New Zealand

1.5 DAIRY PRODUCE

1.5.1 Price paid for MilkSolids

(i) Background

Since June 1998, dairy farmer suppliers have been paid for their milk by their co-operatively owned dairy factories, who have in turn been paid by the *New Zealand Dairy Board* under the Dairy Board Act of 1961. The payout was based on international commodity prices and provided for a commodity margin after deductions had been made for milk and manufacturing costs. Extra payments (above the base commodity price) were made to Dairy Companies for products they manufactured which fetched a market premium. Each dairy company then paid to their suppliers both the Dairy Board advance payout, plus its own payout which was determined by several factors, including product mix, efficiency of manufacture and company reinvestment policies.

In recent years many of the co-operative companies have merged, and by the end of 2000, 95% of all dairy farmers were suppliers to either the *New Zealand Dairy Group* or *Kiwi Co-operative Dairies*. In September 2001 these two companies merged to form *Fonterra Co-operative Group Ltd* incorporating the *New Zealand Dairy Board*. The company remains a co-operative, 100% owned and controlled by the suppliers.

The supplier payment systems of the two former companies continued to operate for the 2001-2002 season, with both company's systems aligned from November 2001 and a fully merged payment system is anticipated from the beginning of the 2002-2003 season.

Source: Dairy Statistics 2000-2001, Fonterra Co-operative Group Ltd.

(ii) MilkSolids Payment Basis

The formula for payment is $a + b \pm c$ where:

a = cents/kg of the milkfat component contained in the milk (subject to Company grading or classing).

b = cents/kg of the protein component contained in the milk (subject to Company grading or classing).

c = volume adjustment in cents/litre of raw milk (subject to Company grading or classing). For the 2001/02 season the volume adjustment will be based on the Company's average MilkSolid content. The Company must provide to each Shareholder Supplier at the commencement of each season a schedule setting out the volume adjustment.

In December 2001 the *Fonterra* average MS was 8.41% and the volume charge was 3.94 cents per litre. Two examples of the calculation used to determine the volume adjustment are shown.

Example A		Example B	
Company average MS%	8.41%	Company Avg. MS%	8.41%
Standard cents per litre vol cost	3.94	Std cents/litre vol cost	3.94
Example Farm average MS% for month	8.82%	Example Farm Avg. MS% for month	7.22%
Volume correction =	$((8.82-8.41)/8.41)*3.94$	Volume correction =	$((7.22-8.41)/8.41)*3.94$
(cents/litre)	$= (0.41/8.41)*3.94$	(cents/litre)	$= (-1.19/8.41)*3.94$
	$= 0.0488*3.94$		$= -0.1415*3.94$
	$= 0.1923$		$= -0.5575$
Assuming 30,000 litres then 30,000 * 0.1923 = 5769cents = \$57.69		Assuming 30,000 litres then 30,000 * -0.5575 = -16725 cents = -\$167.25	

(iii) 2001-2002 Payments

The *Fonterra* advance rates for the 2001-2002 season, advised in September 2001, were as follows:

Payment Month	\$ per milk solid equivalent
October 2001	\$3.45
November	\$3.65
December	\$3.65
January 2002	\$3.65
February	\$3.65
March	\$3.90
April	\$4.15
May	\$4.40
June	\$4.70
July	\$4.95
August	\$5.20

1.5.2 MilkSolids Price Trends

MilkSolids in wholemilk for manufacture (cents per kg)

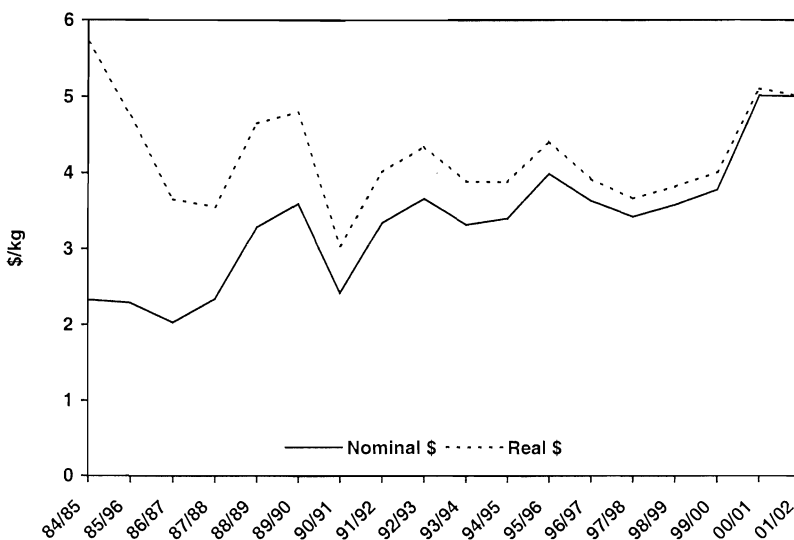
	89/90	90/91	91/92	92/93	93/94	94/95
<i>NZDB-Final</i>	331.13	212.22	298.03	325.29	290.00	300.00
<i>Company margin</i>	28.57	29.76	36.42	40.54	41.72	39.85
<i>NZ weighted average</i>	359.70	241.98	334.45	365.83	331.72	339.85

	95/96	96/97	97/98	98/99	99/00	00/01
<i>NZDB-Final</i>	360.00	318.00	300.00	325.00	335.00	460.00
<i>Company margin</i>	39.43	44.88	41.65	32.95	43.00	41.00
<i>NZ weighted average</i>	399.43	362.88	341.65	357.95	378.00	501.00

Source: New Zealand Dairy Board, *Livestock Improvement(1999-2001)*

(iii) Average Payouts since 1984 in actual Dollars and in "Real" Dollars (based on the value of the dollar in December 2001 and adjusted for inflation).

Figures are in \$ per kg MilkSolids.



Source: New Zealand Dairy Board

1.5.3 Penalties for Poor Quality Milk

- *Fonterra* operates a demerit points scheme under which demerit points are incurred by a Supplying Shareholder for quality defects detected during the course of a month. The aim of the scheme is to ensure that Supplying Shareholders are held responsible and incur penalties according to the proportion of defective consignments supplied by them to the Company in a calendar month. The milk quality tests carried out and the associated demerit points are shown here.
- The Company can impose a maximum of 6 demerit points on a Supplying Shareholder in any one day except where inhibitory substances are involved.
- The amount deducted from the payment, for milk quality defects ranges from 0.3% for 4 demerit points to 40.0% for 120 demerit points. The demerit rates will be based on the forecast average of Milk price for the season and may be adjusted during the course of the season.
- Merit points have been introduced to recognise continued excellence in supplying top quality Milk. From June 2002 merit points can only be earned on farms that have a recognised Quality Management System in place. Merit points are earned for each demerit free month achieved by a supplier. Merit points will be applied automatically when a demerit penalty is incurred to a maximum of 3 in any one month, but only for minor Milk quality downgrades.

Fonterra carries out the following Raw Milk Quality Tests.

Test	Minimum frequency	Standard	Demerit Points	Notes
Bactoscan	3 per month	APC Equivalent A+ Less than 10,000/ml A 10,000 - 19,999/ml B 20,000 - 49,999/ml C 50,000 - 99,999/ml D 100,000 - 199,999/ml E 200,000 - 499,999/ml F 500,000 and over	0 0 0 1 2 3 5	'Bacto Alert' will show on DRS where a B category result is obtained, C,D,E and F results further checked on Blood Plates
Thermoduric Plate Count	1 per month (3 per month Oct-March incl)	less than 1,500/ml 1,500 - 4,999/ml 5,000 - 14,999/ml 15,000/ml and over	0 1 2 3	'Therm Alert' will show on DRS for counts 500 - 1,499/ml inclusive. 'Therm Early Warning' for counts > 1,000 at 48 hours
Coliform Plate Count	1 per month	less than 1000/ml 1,000 - 1,999/ml 2,000 and over	0 2 3	'Coli Alert' will show on DRS for counts 300 - 999/ml inclusive Note that for 2002/03 season acceptable coliform plate count will reduce to 500/ml
Organoleptic Assessment	As required	As per <i>MAF</i> standards	0 1	

(Senses)			3	
Cress Taint	As required		5	
Sediment	As required	As per MAF standards	0 3	
Colostrum	As required	1.35% or less over 1.35%	0 3	
Inhibitory Substances	3 per month	Less than 0.003iu/ml 0.003 - < 0.006iu/ml 0.006 - < 0.03iu/ml 0.03iu/ml or greater (with auditable system a positive unnotified result is reduced by 5 demerit points)	0 13 20 25	If notified: less than 0.003iu/ml - no demerits 0.003iu/ml or greater - 5 demerits For any non-notified positive result, supply is on daily testing for 6 mths. There is a charge for this testing of \$300
Freezing Point	Daily computer scan on composition results	Freezing Point: -0.513°C or lower Freezing Point: -0.512°C or higher	0 1	Where Combi Foss monitoring for EW shows persistent problems, Freezing Point check on a cryoscope is initiated.
Somatic Cell Count	Per consignment	GM 0 – 399,999/ml GM 400,000 - 499,999/ml GM 500,000 - 599,999/ml GM 600,000/ml and over	0 5 11 14	Demerits applied on the basis of Geometric Mean of all results in a period (Days 1 - 10, 11 - 20, 21 - 31) SCC demerit points not subject to scaling or merit point reduction
DDE	As required	Above 0.2 mg DDE/kg Milkfat, penalties applied June to Sept inclusive Above 0.5 mg DDE/kg Milkfat, penalties applied October to May inclusive	\$1.20/mg DDE	All new supply properties must have weighed average soil level of 0.2 mg/kg or less for DDT and its metabolites. Collection ceased for any milk level greater than 1.0 mg DDE/kg Milkfat.
Collection Temperature	Per consignment (Advisory up to 31 January 2002)	0 hour 18°C 1 hour 14.0°C 2 hour 10.0°C 3 hour 7.0°C 1 or 2 non conformances in a month 3 or 4 non conformances in a month 5 or 6 non conformances in a month 7 or more non conformances in a month	0 1 2 4	Time is from end of milking. End of milking is defined as 7:30am for the morning and 6:00pm for evenings Demerit points take effect from 1 February 2002. Temperature demerit points not subject to scaling or merit point reduction.

1.5.4 Winter and Quota Milk Contracts

Details of *Fonterra* contracts were unavailable at the time of publication, however it is understood that premiums for the supply of winter milk during the May to August period will continue to be offered to suppliers, with similar arrangements as under the previous companies.

Suppliers who hold existing contracts with *Kiwi Dairy Co-operative Dairy Co.* or *New Zealand Dairy Group*, or with companies which existed prior to their merger with either of these two companies, will be able to continue with their existing arrangements until the expiry of the contract.

As an example only, details of previous contracts are shown.

In the Auckland, Waikato and Bay of Plenty regions, a premium of 27.9 cents per litre above the manufacturing payout was paid for contract milk in May, June and July 2000. This had been unchanged since 1997. Some existing *New Zealand Dairy Group* suppliers also held period contracts (those who supplied for part of the winter period only). This included those who formerly supplied *Bay Milk Products Ltd* who held contracts which paid a premium of 12.5 cents for May and July and 25 cents for June. There were also a small number of contracts at lower rates.

Kiwi Dairy Co-operative Dairy Co operated a two tier system:

- town supply contracts - a set daily number of litres which a farmer is required to supply throughout the whole year (including winter). Payments for the 1998/99 year (commencing 1/8/98) were
 - September to April (8 months) \$4.40 per kg MS, 33 cents per litre
 - May to August (4 months) \$8.00 per kg MS, 42 cents per litre
- winter supply contract - a set daily number of litres in addition to town supply contract (where a supplier also had a town supply contract) which a farmer was required to supply during the three month period 15 May to 15 August. Payment for winter 1999 was \$8.00 kg MS (paid as 60 cents per litre). To qualify for a winter milk contract a supplier was required to produce milk throughout the three month contract period.

A supplier had to meet winter contract commitments during the contract period, otherwise it was reduced for the following year (to the daily average of the lowest production month). The company's winter contract volume was reviewed and adjusted annually.

1.5.5 Sire Proving Payments

The Livestock Improvement Corporation's sire proving payment for qualifying heifers which are milked this season are:

\$52 for heifers herd tested under self sample system

\$62 for heifers herd tested under self sample assist.

Provisional payments are set at \$47.

1.5.6 Dairy Cattle Sales (2001)

Actual prices for spring 2001 and predictions for 2002 for dairy cattle are presented below for six regions. (In most cases there is little or no change from 2001.)

Waikato			
Class		Winter/Spring 2001	Winter/Spring 2002 (est.)
MA cows	Friesian	\$1300 - \$1370	\$1300 - \$1370
	Jersey	\$1250 - \$1300	\$1250 - \$1300
Rsg 2yr heifers	Friesian	\$1170 - \$1200	\$1170 - \$1200
	Jersey	\$1000 - \$1150	\$1000 - \$1150
Rsg 1yr heifers	Friesian	\$500 - \$580	\$500 - \$580
	Jersey	\$450 - \$500	\$450 - \$500

Due to an easing in demand the autumn 2002 prices are likely to hold for higher BW stock and ease by \$100 to \$150 per head for lower quality and lower BW herds. Poorer quality young stock prices will ease proportionately.

Bay of Plenty			
Class		Winter/Spring 2001	Winter/Spring 2002 (est.)
MA cows	Friesian	\$850 - \$1200	\$850 - \$1200
	Jersey	\$750 - \$1000	\$750 - \$1000
Rsg 2yr heifers	Friesian	\$600 - \$900	\$600 - \$900
	Jersey	\$600 - \$750	\$600 - \$750
Rsg 1yr heifers	Friesian	\$500 - \$650	\$500 - \$650
	Jersey	\$500 - \$675	\$500 - \$650

Taranaki			
Class		Winter/Spring 2001	Winter/Spring 2002 (est.)
MA cows	Friesian	\$1000 - \$1400	\$1000 - \$1400
	Jersey	\$1000 - \$1300	\$1000 - \$1300
Rsg 2yr heifers	Friesian	\$800 - \$1200	\$800 - \$1200
	Jersey	\$800 - \$1100	\$800 - \$1100
Rsg 1yr heifers	Friesian	\$500 - \$700	\$500 - \$700
	Jersey	\$400 - \$600	\$400 - \$600
100kg weaners	Friesian	\$300 - \$500	\$300 - \$500
	Jersey	\$300 - \$450	\$300 - \$450
4 day heifer calves	Friesian	\$100 - \$150	\$100 - \$150
	Jersey	\$100 - \$150	\$100 - \$150

Note: 1. "Budget cows usually sell in autumn for cull cow price plus \$100 to \$200

2. 4 day heifer calves sell for \$1 per BW (breeding worth) unit.

Manawatu/Wairarapa			
Class		Winter/Spring 2000	Winter/Spring 2001
MA cows	Friesian	\$750 - \$900	\$1,000 - \$1,350
	Jersey	\$600 - \$800	\$1,000 - \$1,200
Rsg 2yr heifers	Friesian	\$600 - \$700	\$900 - \$1,200
	Jersey	\$500 - \$600	\$900 - \$1,150
Rsg 1yr heifers	Friesian	\$350	\$500 - \$700
	Jersey	\$300	\$400 - \$600
Heifer calves		\$50	\$100

Canterbury			
Class		Winter/Spring 2001	Winter/Spring 2002 (est.)
MA cows	Friesian	\$1300 - \$1500	\$1300 - \$1500
	Jersey	\$1200 - \$1400	\$1200 - \$1400
Rsg 2yr heifers	Friesian	\$1150 - \$1350	\$1150 - \$1350
	Jersey	\$1000 - \$1200	\$1000 - \$1200
Rsg 1yr heifers	Friesian	\$600 - \$850	\$600 - \$850
	Jersey	\$450 - \$700	\$450 - \$700
Heifer calves		\$1.70 - \$2.00 per BW	\$1.70 - \$2.00 per BW

Note: BW = breeding worth

Southland			
Class		Winter/Spring 2001	Winter/Spring 2002 (est.)
MA cows	Friesian	\$1350 - \$1450	\$1450 - \$1530
	Jersey	\$1250 - \$1350	\$1350 - \$1450
Rsg 2yr heifers	Friesian	\$1200 - \$1280	\$1250 - \$1350
	Jersey	\$1150 - \$1250	\$1250 - \$1300
Rsg 1yr heifers	Friesian	\$600 - \$650	\$700 - \$730
	Jersey	\$500 - \$600	\$600 - \$650
100kg weaners		\$450 - \$500	\$550 - \$600

Cost of transport from Waikato to Southland is approximately \$150 to \$200 per head.

1.5.7 Dairy and Dairy-Cross Calves

(Refer also to *Sections 1.4.5 and 1.5.8*)

(i) Calves sold for rearing (Spring 2001):

The price is always very dependent on district and sex, breed and weight of calves.

In Canterbury top quality four day old Friesian bull calves and beef calves sold for \$120 to \$150 per head compared to \$50 to \$55 per head in 1999, \$35 per head in 1998, \$35 to \$45 per head in 1997 and \$25 to \$30 in 1996.

Waikato prices were similarly increased over 1999, with four day old friesian bull calves and beef calves selling for \$150 to \$160 compared with up to \$80 per head in 1999 and to \$45 to \$50 for the previous two seasons.

(ii) Bobby Calf Price at Farm Gate:

Dairy Meats New Zealand Limited - Boned in hot carcass weight

	10.1 to 13.5kg (c/kg)	13.6 to 18.5kg (c/kg)	over 18.6kg (c/kg)
1992/93	198.17	226.45	287.80
1993/94	133.67	186.31	281.54
1994/95	187.61	215.77	299.59
1995/96	90.00	112.00	140.00
1996/97	62.00	108.00	145.00
1997/98	58.00	104.00	142.00
1998/99	51.00	95.00	130.00
1999/00	205.00	309.00	342.00
2000/01	295.00	487.00	542.00

Use of these figures, as farm gate price for Bobby Calves must be cautioned. They are not a reflection of the average return for Bobby Calves in New Zealand. Each year the value becomes more distorted as companies provide shares, dividends and various rebates.

1.5.8 Dairy Beef Weaners

Refer also to *Section 1.4.6*

In Canterbury 100 kg Friesian bull calves sold for \$360 to \$400 in November / December 2001 compared with \$230 to \$260 per head in 1999, \$200 to \$230 in 1998, and \$130 to \$150 in December 1997.

Prices in Waikato, were similar with weaned 100 kg Friesian bull calves selling up to \$450 compared with \$265 to \$270 per head in 1999 and \$230 to \$240 per head in 1998. Prices were \$190 to \$250 in 1997.

1.5.9 Cow Beef

(i) *AFFCO* Cow Pool 2002

The *AFFCO* Cow Pool 2002 is specifically designed for dairy farmers, and provides a transparent and consistent operating schedule for farmers selling cull cows and herd sires. It focuses on simplicity, with payment in full being made at slaughter.

Suppliers are not required to make a written commitment when entering *AFFCO* Cow Pool 2002. The success of the plan is based on the close working relationship between the farmer and the *AFFCO* Livestock buyer.

Business Renewal Reward

AFFCO Cow Pool 2002 recognises farmer loyalty with a 7.5 cents per kilogram Business Renewal Reward, based on the following conditions:

- The per kilogram reward is calculated on the lesser of the number of cows slaughtered in the current year compared with the number of cows slaughtered last year.

AFFCO Cow Pool 2002 suppliers receive priority of slaughter space at all times.

For more details of this, and other *AFFCO* contracts, see *Section 1.4.3*.

(ii) *Richmond* Cow Pools

This is an opportunity for dairy farmers to sell cull cows on a “hooks weight and value” basis and participate in the marketing pool. In respect of payments terms, farmers receive the full *Richmond* Operating Price at the date of processing (schedule plus premium) and receive proceeds within 14 days. A quarterly pool payment of not less than 8 cents per kilogram carcass weight is paid on all exportable carcasses of manufacturing cow. Pool payments are disbursed within 6 weeks of the end of each period. The quarterly pool periods end December, March, June and September.

See also *Sections 1.4.1, 1.4.2 and 1.4.3*

1.5.10 TB Compensation

See *Section 1.4.7*

1.6 DEER PRODUCTION

1.6.1 Venison Schedule (Export)

The venison schedule works in the same way as for sheep (refer to *Section 1.2.1*).

Below is a schedule of net prices (cents per kg) for a week in January 2002 from a meat company. All charges and levies have been deducted. This information is usually available in summary form each week, in various newspapers and farming journals.

<i>Hind</i>			<i>Stag</i>		
Grade	Weight (kg)	cents/kg carcass weight	Grade	Weight (kg)	cents/kg carcass weight
AP	30	524	AP	30	534
AP	37	586	AP	37	596
AP	40	586	AP	40	596
AP	45	586	AP	45	596
AP	50	673	AP	50	683
AP	55	673	AP	55	683
AP	60	680	AP	60	690
AP	65	680	AP	65	690
AP	70	635	AP	70	645
AP	75	635	AP	75	645
AP	80	614	AP	80	624
AP	85	614	AP	85	624
AP	90	594	AP	90	604
AP	95	594	AP	95	604
AF/AT	50	441	AF/AT	50	451
AF/AT	60	441	AF/AT	60	451
AF/AT	80	441	AF/AT	80	451
AF2	70	383	AF2	70	393

1.6.2 Venison Contracts

(i) Forward Contracts

One South Island company was offering the following forward contract prices for January 2002. These compare with the contract prices for early 2001 and 2000.

Weight range (kg)	Stags c/kg			Hinds c/kg		
	2000	2001	2002	2000	2001	2002
35.1 to 45	450	520	640	440	510	630
45.1 to 55	500	565	670	490	555	660
55.1 to 65	535	580	710	525	570	700
65.1 to 75	525	580	740	515	570	730
75.1 to 85	510	540	730	500	530	720
> 85	490	510	680	480	500	670

Note: These figures are based on an average contract price for the months January to March for each of the above years.

(ii) ***Richmond***

Premier Supply Commitment

- Available to individual farmers dealing direct with a *Richmond* Livestock Representative and supplying all stock owned and sold for slaughter within an export-processing season to *Richmond*. Also farmers supplying all export deer to *Richmond* via exclusive deer procurement agents. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- There is no set minimum for stock units.
- A Commitment Bonus of a minimum payment of 8 cents per kilogram over the operating price, on qualifying grades will be made to farmers operating under the Premier Supply Commitment.
- Premier suppliers have preferential access to available processing space for all stock..

For all other details of this contract and for general conditions see *Section 1.2.4 (Richmond Lamb Contracts)*.

Specified Volume Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative or indirectly via a *Richmond* approved third party stock firm or independent agent, who enter into an agreement to supply a specified volume of livestock within an export processing season to *Richmond*. Also farmers supplying all export deer to *Richmond* via exclusive deer procurement agents. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- A Commitment Bonus minimum payment of 3 cents per kilogram over the operating price on qualifying grades, will be made to farmers operating under the Specified Volume Supply Commitment.

For all other details of this contract and for general conditions see *Section 1.2.4 (Richmond Lamb Contracts)*.

Defined Species Supply Commitment

- Individual farmers dealing direct with a *Richmond* Livestock Representative or indirectly via a *Richmond* approved third party stock firm or independent agent, who enter into an agreement to supply all of a particular species of livestock within an export processing season to *Richmond*. Also farmers supplying all export deer to *Richmond* via exclusive deer procurement agents. Joint applications may be considered at the discretion of Livestock Management. No joint applications will be considered unless they are substantially of the same ownership.
- A Commitment Bonus of a minimum payment of 5 cents per kilogram over the operating price, on qualifying grades will be made to farmers operating under the Defined Species Supply Commitment

For all other details of this contract and for general conditions see *Section 1.2.4 (Richmond Lamb Contracts)*.

General Conditions

Stock proceeds including any drafting fee which is due, will be paid within 14 days of processing by direct bank transfer to the suppliers nominated bank. A two part bonus is payable on total carcass weight for qualifying grades (AP grade stags and/or hinds) as follows: Payment is made up of :

- The cents per kilo carcass weight bonus applicable to the commitment option paid within 14 days of processing.
- An end of season supply bonus for total qualifying grades.

1.6.3 Venison Price Trends

(i) Average Schedule Price 60 kg AP Stag (2001).

Prices are \$ per kg

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
7.17	7.09	7.21	7.52	7.99	8.59	9.18	9.67	10.11	10.14	9.82	7.94

(ii) Venison Schedule prices 1991 to 2001

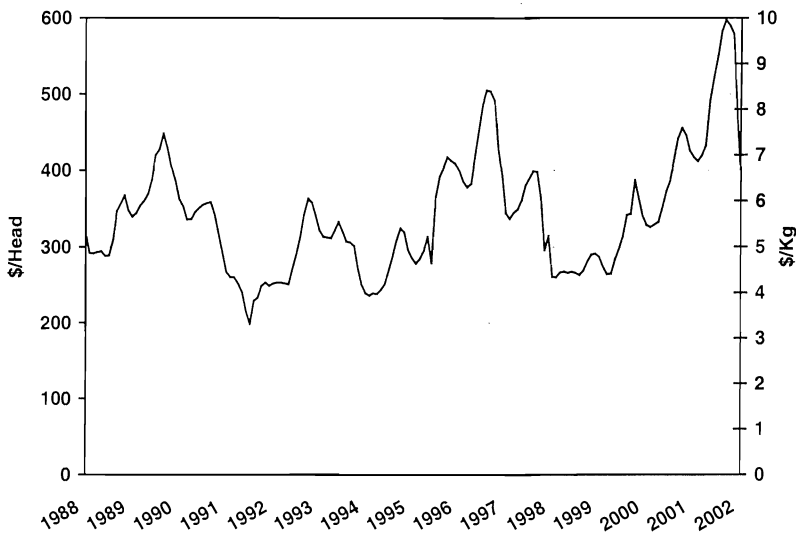
Prices are \$ per kg

Grade A 60kg stag schedule (gross)									
1991- 1992	1992- 1993	1993- 1994	1994- 1995	1995- 1996	1996- 1997	1997- 1998	1998- 1999	1999- 2000	2000- 2001
\$4.85	\$5.79	\$4.74	\$5.78	\$7.53	\$6.77	\$5.17	\$5.22	\$6.25	\$8.12

Note: The figures are based on the average weekly schedule for the year ending September.

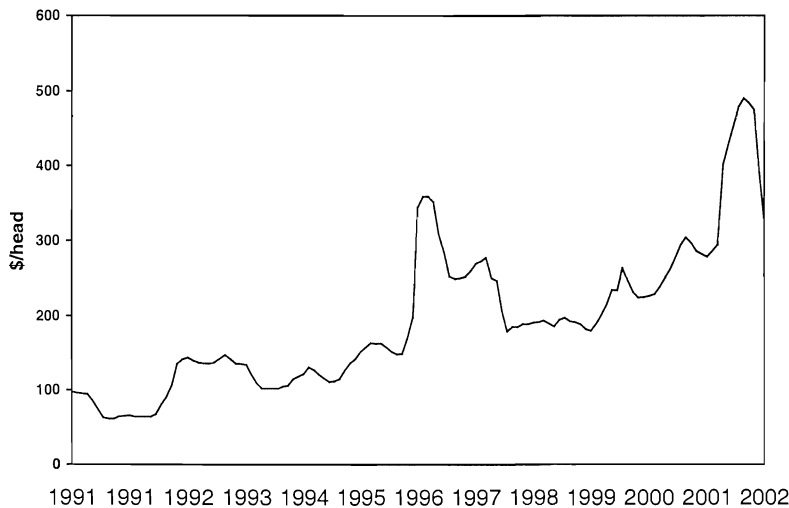
Source: NZ Game Industry Board

(iii) Average Schedule Price for AP Grade (60 kg stag) 1988 to January 2002.



Source: Lincoln University; "N.Z. Farmer" 1988 to April 2001, The Deer Farmer.

(iv) Average Schedule Price for AP Grade (37 kg hind) 1991 to January 2002



Source: Lincoln University; "N.Z. Farmer" 1988 to April 2001, The Deer Farmer.

1.6.4 Deer Live Sales

Livestock prices vary markedly throughout the year and between districts.

Apart from breeding stags, prices will be very dependent on feed availability, freezing works capacity and schedules.

Livestock prices for each season from 1997 to 2002 are shown below.

Red Deer

	\$ per head				
	1997/98	1998/99	1999/00	2000/01	2001/02e
Weaner hinds	120-160	120-160	150-200	230-270	250-280
Rising 18mth hinds	250-300	250-300	270-350	350-400	400-450
Mixed age hinds	300-400	280-350	300-400	450-500	500-550
Cull for age hinds	200-250	200-250	300	400	400
Weaner stags	140-200	140-170	170-200	250-300	250-300
Rising 18mth stags	250-350	250-350	300	400	400
MA velvetting stags	500	450-550	500-800	600-800	600-800
Breeding stags	1000-12000	1000-12000	2000-58000	2500-78000	2500-78000

e = estimate

Weaner red deer can also be purchased on a per kilogram live weight basis.

	\$ per kg				
	1997/98	1998/99	1999/00	2000/01	2001/02e
Weaner hinds	1.50-3.00/kg	2.00-3.00/kg	3.00-3.75/kg	4.30-4.80/kg	4.50-5.00/kg
Weaner stags	2.50-3.20/kg	2.30-3.20/kg	3.00-3.75/kg	4.50-5.00/kg	4.50-5.00/kg

e = estimate

Wapiti and Wapiti cross

	\$ per head				
	1997/98	1998/99	1999/00	2000/01	2001/02e
Weaner hinds	200-250	200-250	250-300	250-300	250-300
Rising 18mth hinds	350-450	350-450	400-500	400-450	400-450
Mixed age hinds	300-700	300-600	400-700	500-750	500-750
Weaner stags	200-500	200-500	200-600	300-600	300-600
Rising 18mth stags	300-550	300-500	300-600	400-600	400-600
MA velvetting stags	350-600	350-600	600-1000	700-1000	700-1000
Breeding stags	1000-16000	1000-12000	2000-14000	2500-16000	2500-16000

e = estimate

Source: Wrightson.

1.6.5 Velvet

Velvet prices began the 2002 year well, following uncertainty in the market late 2001. Prices paid per kg for top product increased by around \$10 every sale. Super A2 had reached \$160 per kg by February 2002.

Source: The Deer Farmer - February 2002

(i) Velvet Pool Prices by Grade (\$ per kg):

		1999/00	2000/01	2001/02(Oct-Dec)
Super A		105 to 163	60 to 196	70 to 166
A 1 and 2		85 to 160	62 to 149	72 to 116
B 1 and 2		83 to 160	59 to 140	72 to 107
C 1 and 2		80 to 151	49 to 130	62 to 87
D 1 and 2		70 to 95	41 to 111	36 to 60
E		60 to 80	12 to 85	31 to 41
Manufacturing		53 to 70	2 to 75	9 to 43
Taiwan	1	118 to 153	99 to 155	104 to 128
	2	90 to 115	17 to 76	-
	3	-	39 to 139	69
	4	-	32 to 91	-
Spiker	1	72 to 115	51 to 106	50 to 60
	2	53 to 86	22 to 76	22 to 46
	3	40 to 55	16 to 52	12 to 33
Regrowth		40 to 88	5 to 94	22 to 51
Overgrown		30 to 121	26 to 87	22 to 60
Damaged		51 to 145	18 to 116	24 to 99

These figures represent a range of prices paid over the November to January period in each season. Prices are net of GIB Levy, handling/grading charges and commission.

Source: Wrightson Livestock (1999/00), NZ Game Industry Board (2000/01 and 01/02).

(ii) Seasonal Average Prices for Red Grade Velvet.

		1997/98	1998/99	1999/00	2000/01
Average Weighted Pool Prices		\$41.40	\$45.59	\$113.80	\$79.12
Average Grade Pool Prices	A/B	\$55.89	\$49.44	\$151.11	\$101.84
	C/D	\$37.60	\$48.96	\$130.30	\$73.98
Super A		\$71.18	\$53.30	\$157.79	\$159.27
A		\$59.51	\$49.96	\$153.40	\$106.03
B		\$52.28	\$48.77	\$147.99	\$95.66
C		\$40.89	\$50.02	\$140.62	\$81.67
D		\$28.56	\$45.99	\$109.95	\$58.58
E		\$19.54	\$36.16	\$79.20	\$41.33

	1997/98	1998/99	1999/00	2000/01
Spiker	\$27.53	\$42.38	\$92.32	\$62.06
Damaged	\$28.71	\$38.77	\$100.82	\$59.58
Manufacturing	\$21.20	\$40.29	\$60.00	\$45.38
Regrowth	\$17.95	\$50.13	\$77.77	\$51.17

Source: NZ Game Industry Board.

(iii) Wapiti Velvet

The following prices are from the South Island sales.

	1997/98	1998/99	1999/00	2000/01
Supreme	\$85.70	\$70 - \$81	\$95 - \$125	\$135
EW1 - long	-	\$36 - \$65	\$73 - \$80	\$110
- medium	-	\$40 - \$62	-	-
- short	\$68.30	\$55 - \$78	\$95 - \$118	\$132
EW2 - long	-	\$35 - \$65	\$73 - \$95	\$110
- medium	-	\$35	\$75 - \$102	-
- short	-	\$50 - \$78	\$89 - \$115	\$125
EW3 - long	-	\$35 - \$65	\$70 - \$80	-
- medium	-	\$38 - \$60	\$72 - \$92	-
- short	-	\$45 - \$78	\$83 - \$110	\$111
EW4 - long	-	-	\$60	-
- medium	-	-	\$65	-
- short	\$35.01	-	\$77 - \$90	-
EW overgrown	-	-	\$51 - \$80	-

*Source: Wrightson Livestock(1997/98,1998/99), New Zealand Game Industry Board
(1999/00, 2000/01)*

1.6.6 T.B. Compensation

No compensation is paid to farmers for deer classified as TB reactors.

1.7 GOAT PRODUCTION

1.7.1 Introduction

Production from goats is divided into three categories: Meat (chevon), milk and fibre. In conjunction with these, goats can be employed as a viable alternative in weed control.

1.7.2 Goat Meat Prices (Chevon)

(i) Schedule Prices

The following example is for September 1, 2001 (prices are \$ per head).

Note: These prices are net of all charges, but are a guide only and subject to change.

Weight kg/cw	PPCS	Taylor Preston	Richmond		Progressive (grade only)
			Young	Adult	
4	6.10	6.23	3.90	3.90	Nil
6	9.40	10.23	15.70	15.70	18.45
8	12.70	21.43	21.50	21.50	26.95
10	16.00	35.23	34.30	34.30	36.05
12	27.10	42.63	41.50	41.50	43.95
14	31.70	44.43	43.10	43.10	50.75
16	36.30	47.83	49.50	49.50	59.35
18	40.90	54.03	39.70	39.70	53.55
20	25.50	40.23	44.30	44.30	37.55
22	28.10	44.43	48.90	48.90	42.25
24	30.70	48.63	53.50	53.50	8.95

Source: www.caprine.co.nz

(ii) 2001/2001 Prices

Prices are \$ per head All values have levies and fees included.

Transport: South Island - farmer pays to nearest plant. North Island - companies pay freight.

	2001/02	2001/02	2000/01
North Island	High	Low	Average
13.0 kg	45.79	47.09	43.99
15.0 kg	52.53	53.03	49.89
South Island	High	Low	Average
13.0 kg	41.28	29.90	37.11
15.0 kg	47.65	34.50	43.01

Source: *Meat Matters – February 1, 2002*

1.7.3 Meat Prices Trends

Average prices per head for 17 kg goats were as follows: (2000/01 figure is for a 15 kg goat)

	North Island		South Island	
	High	Low	High	Low
2000/01	\$53.46	\$42.24	\$47.65	\$34.50
1999/00	\$39.14		\$34.90	
1998/99	\$41.33	\$34.21	\$39.10	\$36.62
1997/98	\$41.09	\$34.21	\$35.89	\$32.49
1996/97	\$38.12		\$32.49	
1995/96	\$25.60		\$31.18	

Source: *Meat Board News*, *N.Z. Farmer*, www.caprine.co.nz.

Average prices for 12 kg goats were as follows: (2000/01 figure is for a 13 kg goat)

	North Island	South Island
2000/01	\$42.37	\$35.59
1999/00	\$35.03	\$30.69
1995/96	\$15.18	\$18.69
1994/95	\$14.59	\$19.59
1993/94	\$13.49	\$20.41
1992/93	\$9.01	\$15.72
1991/92	\$6.80	\$12.44
1990/91	\$7.40	\$10.80
1989/90	\$8.00	\$13.20

Source: *Meat Board News*, *N.Z. Farmer*, www.caprine.co.nz.

1.7.4 Goat Milk

Milk for processing in 2000/01 was paid for on a milk solids basis at \$10.25 per kg total solids per litre, dependant on the product manufactured. Most milk is converted to milk powder (mainly for export), UHT milk and specialised goat milk infant formula (powder). The industry is concentrated in the Waikato and Taranaki and is restricted to a limited number of suppliers. In other regions, production is limited and returns to individual producers vary widely, depending on local supply and demand. In the 1999/00 and 1998/99 seasons the price paid on a milk solids basis was \$10.00 per kg, compared with \$9.50 in 1997/98. In 1996/97 the season price paid was estimated to be between 85 cents and \$1.00 per litre (North Island).

1.7.5 Goat Fibre

A world-wide shortage of all goat fibres has upheld prices, which should be sustainable in the foreseeable future.

(i) Mohair Sales

The following are the average pool prices (\$NZ per kg fleece) for mohair as at December in each year;

Grade	2001	2000	1999	1998	1997
A O Super Fine Kid (ASFK0)	40.00	30.00	28.00	17.00	15.00
A Super Fine Kid (ASFK1)	28.00	22.00	21.00	15.00	13.00
B Super Fine Kid (BSFK1)	12.00	10.00	8.00	7.00	7.00
A O Kid (AK0)	25.00	21.00	20.00	13.00	10.00
A Kid (AK1)	20.00	15.00	17.00	10.00	9.00
A 2 nd Kid (AK2)	15.00	10.00	10.00	5.00	7.50
A O Young Goat (AYG0)	15.00	13.00	13.00	8.00	8.00
A Young Goat (AYG1)	12.00	11.00	11.00	7.00	7.00
A 2 nd Young Goat (AYG2)	8.00	7.00	7.00	4.50	6.00
B O Kid (BK0)	12.00	9.00	8.00	7.00	7.00
B Kid (BK1)	12.00	9.00	8.00	7.00	7.00
B O Young Goat (BYG0)	12.00	9.00	8.00	7.00	7.00
B Young Goat (BYG1)	12.00	9.00	8.00	7.00	7.00
B 2 nd Young Goat (BYG2)	4.00	4.00	3.00	3.00	3.00
A Xbred Young Goat (AXBYG)	4.00	3.50	2.00	2.50	2.50
A O Adult (AH0)	9.00	7.00	7.00	4.00	6.00
A Adult (AH1)	8.00	7.00	6.00	3.80	5.00
BO Adult (BH0)	4.00	3.50	3.00	3.00	5.00
B Adult (BH1)	4.00	3.50	3.00	3.00	5.00
A 2 nd Adult (AH2)	6.00	5.00	5.00	3.00	4.50
Inferior (XXB3)	1.00	1.00	1.00	0.50	1.00
Stained Mohair (STN)	4.00	3.50	3.50	2.50	3.50
Heavily Stained Mohair (HSTN)	1.00	1.00	1.00	1.00	1.00
Cotted (COTT)	4.00	3.50	3.50	2.50	3.50
Coloured Mohair (COLMO)	0.00	0.00	0.00	0.00	0.00

Source: Mohair Fibres Ltd.

(ii) Cashgora Sales

All prices are \$ per kg raw fibre.

Grade:	2001	2000	1999	1998	1997
Cashgora A	12.00	12.00	12.00	6.00	12.00
Cashgora B	10.00	8.00	6.00	4.00	8.00
Cashgora D	8.00	6.00	4.00	3.00	6.00
GY/BR (coloured) Cashgora	6.00	4.00	2.00	1.00	3.00

Note: Cashgora yields from G4 goats range from 0.7 to 1.5 kg per goat.

(iii) Cashmere Sales

Feral goats are typically shearing a fleece of about 300 grams per head per year of which approximately 100 grams is saleable 'Down' cashmere

	2001 \$/kg	2000 \$/kg	1999 \$/kg	1998 \$/kg	1997 \$/kg
WW1/WC1	100.00	90.00	75.00	50.00	80.00
WW2/WC2	80.00	70.00	50.00	40.00	60.00
GY1/GY2/BR1/BR2	60.00	60.00	40.00	20.00	50.00

Source: Mohair Fibres Ltd.

1.7.6 Goat Livestock Sales

Typical prices in December 1999, 2000 and 2001 were as follows: (\$/head)

		1999	2000	2001
Does				
Texan/Zim /NZ Angora Purebreds	Adults	100 - 750	50 - 600	50 - 500
	Kids	50 - 300	-	30 - 200
Commercial Angora		50 - 100	30 - 100	30 - 100
Farmed Feral		-	25 - 50	30 - 50
Cashmere and Cashgora		25 - 50	25 - 100	30 - 100
Boer Purebred	Adults	200 - 1000	200 - 1000	100 - 500
	Kids	200 - 500	200 - 500	100 - 500
Boer Crossbred	Adults	40 - 200	40 - 200	40 - 100
	Kids	30 - 200	30 - 200	20 - 100
Wethers (Angora)		20 - 50	20 - 50	20 - 50
Bucks				
Boer purebred (meat)		300 - 1000	250 - 1000	200 - 800
Boer crossbred		100 - 500	100 - 500	100 - 250
Cashmere and Cashgora		100 - 300	100 - 300	100 - 250
Texan /Zim /NZ Angora Purebred		-	100 - 1000	100 - 1000

Source: Garrick Batten, Registered Farm Management Consultant

1.8 PIG PRODUCTION

1.8.1 Pig Meat Prices

Schedule prices vary markedly during the year. Weight ranges and payments are based on "on hooks", "hot" carcass weight, cents per kg (net). A typical schedule from November 5th 2001 is presented here.

CODES	Pork			Super Pork	
	A	B	C	D	E
	under 35kg cents/kg	35.0-40.0kg cents/kg	40.5-45.0kg cents/kg	45.5-50.0kg cents/kg	50.5-55.0kg cents/kg
Code / Fat Measure					
1 6 -10mm	315	360	380	390	390
2 11-12mm	240	305	325	345	365
3/5 13-15mm	215	215	215	215	275
6 16 - 18mm	140	140	140	140	140
7 19mm+	130	130	130	130	130
Z Damaged	260	260	260	260	260

Bacon					
CODES	F	G	H	I	J
	55.5-60kg	60.5-65.0kg	65.5-70kg	70.5-75.0kg	75.5-85.0kg
	cents/kg	cents/kg	cents/kg	cents/kg	cents/kg
Code / Fat Measure					
1 6 -10mm	380	375	375	375	370
2 11 - 12mm	365	375	375	375	370
3/5 13 - 15mm	320	330	330	330	330
6 16 - 18mm	220	220	220	220	220
7 19mm+	130	130	130	130	130
Z Damaged	260	260	260	260	260

Weight ranges are kg hot carcass weight

Bacon price paid to 85kg only; manufacturing pigs (choppers) over 85kg are paid for at 185 cents per kg, ex Belfast (head and skin on).

Deductions (per pig):

Pork Industry Board Levy \$4.00

Meat Inspection Fees \$3.00

Total \$7.00

Regional Schedule Prices (November 2001)

Sale Weight	Auckland/Waikato		Manawatu		Canterbury	
	\$/kg	Trend	\$/kg	Trend	\$/kg	Trend
Pork (D1)	4.35	+10	4.25	+10	3.90	+10
Bacon (H2)	4.05	+10	4.00	+10	3.75	+10
Choppers ¹ .	1.80-2.00	+20	2.00	+20	2.20-2.40	+10

The chopper price variations reflect differences in trading policy (whether inclusive or exclusive of heads, feet and skins).

Trend is percentage difference from October 2001.

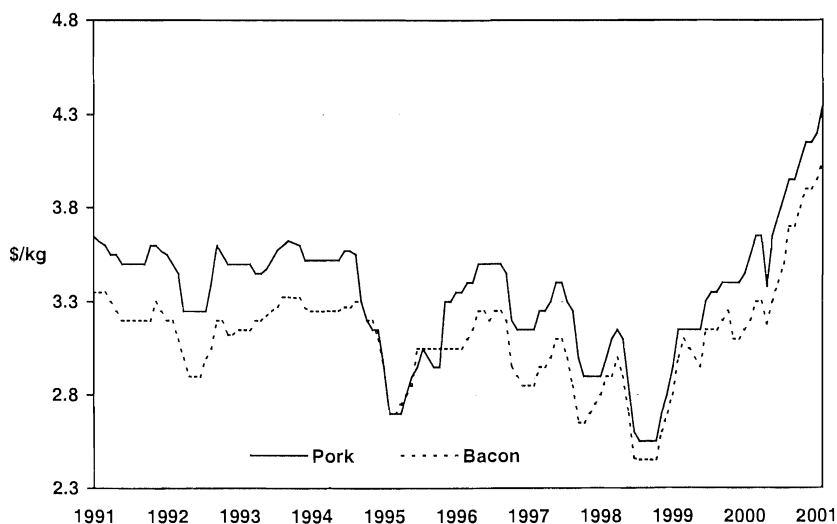
Note: Prices are quoted for the D1 schedule (45.1 to 50.0 kg weight range, 6 to 9 mm back fat) and the H2 schedule (65.1 to 70.0 kg carcass weight range, 10 to 12 mm back fat). The prices do not account for volume or quality premiums that are available from many buyers.

Source: Pork Outlook, November 2001.

1.8.2 Average Pigmeat Returns 1991 to 2001

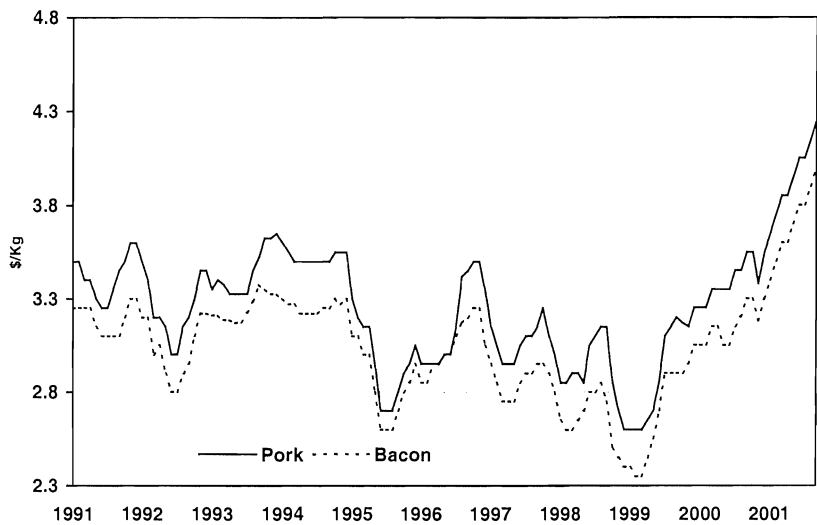
The following are average monthly return for pigs, on a per kg basis, sold in three regions from 1991 to 2001 (D1 Pork and H2 Bacon).

(i) Waikato



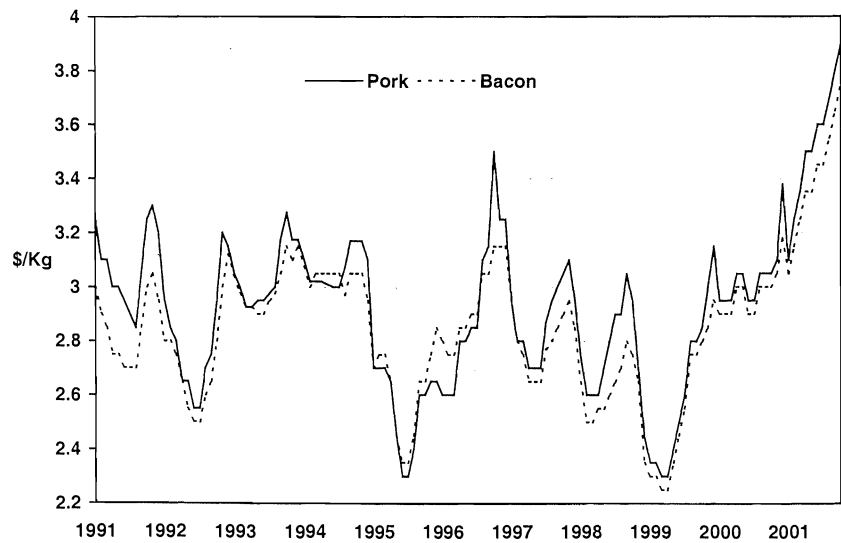
Source: Pork Industry Board

(ii) Manawatu



Source: Pork Industry Board

(iii) Canterbury



Source: Pork Industry Board

1.8.3 Live Pig Sales

		Canterbury 2000/01	North Island Jan 01 – June 01	North Island Jul 01 – Nov 01
		\$ per head	\$ per head	\$ per head
Weaners	- small	20 - 30	35 - 50	45 - 60
	- medium	30 - 40	52 - 65	62 - 75
	- large	40 - 50	68 - 80	78 - 100
Slips		50 - 70	80 - 90	95 - 115
Stores	- large	90 - 110	100 - 120	115 - 135
	- small	70 - 80	75 - 95	90 - 110
Porkers	- heavy	160 - 180	160 - 180	170 - 200
	- light	100 - 150	110 - 130	130 - 160
Bacon	- heavy	180 - 260	190 - 210	225 - 260
	- light	170 - 180	160 - 180	190 - 220
Sows		-	-	-
Choppers	- heavy	300 - 500	140 - 190	200 - 260
	- light	100 - 300	90 - 130	120 - 160
In Pig Sows		250 - 450	160 - 300	250 - 450

Source: Wrightson

1.8.4 Live Pig Price Trends

(i) Canterbury

		2000/01	1999/00	1998/99	1997/98
		\$ per head	\$ per head	\$ per head	\$ per head
Weaners	- small	20 - 30	14 - 30	10 - 25	20 - 35
	- medium	30 - 40	-	-	-
	- large	40 - 50	30 - 50	25 - 42	60 - 70
Slips		50 - 70	50 - 70	43 - 60	70 - 85
Stores	- large	90 - 110	70 - 85	60 - 80	90 - 100
	- small	70 - 80	-	-	-
Porkers	- heavy	160 - 180	85 - 120	80 - 110	110 - 150
	- light	100 - 150	-	-	-
Bacon	- heavy	180 - 260	120 - 180	115 - 150	150 - 180
	- light	170 - 180	-	-	-
Sows		-	140 - 260	130 - 210	250 - 350
Choppers	- heavy	300 - 500	110 - 150	100 - 150	150 - 200
	- light	100 - 300	40 - 80	-	-
In Pig Sows		250 - 400	160 - 260	-	-

(ii) North Island

		2001	2000	1999	1998
		\$ per head	\$ per head	\$ per head	\$ per head
Weaners	- small	35 - 60	25 - 55	20 - 42	20 - 35
	- medium	52 - 75	35 - 65	35 - 55	40 - 55
	- large	68 - 100	45 - 85	50 - 90	60 - 90
Slips		80 - 115	75 - 110	70 - 110	90 - 100
Stores	- large	100 - 135	80 - 115	85 - 120	110 - 128
	- small	75 - 110	65 - 90	65 - 95	70 - 95
Porkers	- heavy	160 - 200	135 - 180	90 - 150	135 - 170
	- light	110 - 160	80 - 130	70 - 125	85 - 125
Bacon	- heavy	190 - 260	150 - 210	135 - 185	160 - 210
	- light	160 - 220	130 - 185	115 - 160	120 - 150
Sows		-	-	-	-
Choppers	- heavy	140 - 260	130 - 180	130 - 150	120 - 170
	- light	90 - 160	80 - 120	80 - 125	70 - 110
In Pig Sows		160 - 450	-	180 - 250	160 - 350

Source: Wrightson Ltd

1.9 RATITES (EMUS AND OSTRICHES)

1.9.1 Introduction

The commercial arm of the NZ Ostrich Industry is now firmly established. New markets are being developed and an Ostrich Export Schedule has been published.

The *NZ Ostrich Export Corporation Ltd (NZOE)* based in Alexandra in the South Island has established itself firmly in the export market and is sourcing stock from all over NZ for the export trade. *NZOE* offered chick and grower contracts to farmers on longer-term contracts, an innovative idea designed to give continuity of supply to their markets. This idea when shown to the overseas market place was loudly applauded and has received strong support from that sector, simply for continuity of supply, which was a problem they had had with other countries supplying them. These same contracts were quickly snapped up by ostrich farmers and farmers keen to supply process birds. *NZOE* have now closed off writing new contracts but are redirecting some contracts to farmers keen to supply them. Some marketing companies such as *CEOM (Canterbury Emu and Ostrich)* have taken a position with *NZOE* and are currently reallocating these to farmers wanting them.

Local trade is being supplied by a number of smaller marketing companies of which the most notable is *Canterbury Ostrich Processors* based at Lincoln, the pioneers in the ostrich processing industry, who supply meat throughout New Zealand.

Both ostrich and emu meat have been granted “The Tick of the *NZ Heart Foundation*” because the meat meets the *NZ Heart Foundation’s* high quality standards.

The emu industry is struggling to enter the commercial phase, with only a few farmers-cum-marketers having sufficient birds to process. Those farmers/marketers prepared to make the effort are achieving sustainable results.

1.9.2 Meat and Hide Prices

(i) Ostrich

Ostriches are very similar to venison in yields from liveweight to carcass weight to final meat yield. In the last twelve months, and to satisfy farmer demand, farmers are now being paid an all up schedule that includes both meat and hide, and payment is being made within fourteen days of processing. As a result, farmers can now budget thus putting the industry firmly on its feet the same as sheep, cattle, pigs and venison. *NZOE* are targeting ostriches with carcass weights from 44 kg through to the 49 kg mark because overseas markets are demanding cuts that come from carcasses of this size. Manufacturing (ie birds over 18 months) prices have not changed much since 1999, being currently between \$1 and \$1.50 per kg (hide included).

New export meat markets (mainly Europe) have been developed with very pleasing results and, as a consequence, an October/November 2001 schedule with a high of \$11.00 per kg was announced. Given the fact that the hide market has been quite depressed (Japan and the US being the main markets and their economies as they are), has meant that hide prices have been poor so this price per kg is excellent – even bettering the venison schedule.

The January 2002 schedule though, as with most other meats, has come back and is now

at a premium of \$8.00. The Local Trade schedule, which struggles to keep up with the export schedule (demand at the higher prices), the same as the venison industry, manages to maintain supply to those up-market establishments. Supply is mainly to the hospitality trade and even though the public likes the product when dining out, there is insufficient demand to warrant too many butchers/delicatessens handling the meat for general trade.

With the new Meat Act there are currently two export meat plants (in Fielding and Gore) processing ostrich for export and some local trade. The *Oxford Abattoir* (South Island) is processing both ostrich and emu for local trade. A MAF licensed abattoir is processing in Northland and a mobile processing plant is still processing around the North Island though only under *Ministry of Health* rules. Another South Island export plant is preparing its RMP or risk management plan to enable it to process ostrich and emu.

Protocols are no longer an issue with protocols to the EU, the USA, Thailand and Malaysia completed and others in the pipeline, namely Japan, therefore market access is no longer a problem. This is a tribute to MAF and to the image *NZ Meat Exports* have overseas and in general.

Hides are exported green to South Africa for tanning (technology is still being developed in NZ) and some further marketing is currently under investigation mainly in Italy and Europe.

(ii) Emu

Emu meat is currently being marketed to the hospitality trade in NZ and wholesale prices averaging \$12 are being achieved but with current feed, processing and distribution costs, the return to the farmer is minimal.

However 65% of the final return to the farmer is from emu oil, of which a well-fed emu can produce 8 to 12 litres (based on 10 to 15 kg of fat). Prices of \$30 per litre of processed oil are being achieved. The therapeutic creams and oils that emu oil are made into, are currently being supplied to physiotherapists of most of the major NZ sporting teams, with very pleasing results.

Markets are currently being investigated for meat, both domestic and export, and signs are encouraging.

1.9.3 MAF Sustainable Farming Fund

The ostrich industry recently was awarded a MAF Sustainable Farming Fund grant with a view to researching the industry from the breeder through to incubation, chick rearing and growing out to processing. This is well under way and farmers are having regular meetings to discuss and analyse their particular sector of the industry under the guidance of a farm advisory officer. This grant is for two years and a full report is to be completed by the *NZ Ostrich Conference* in 2003. Results and findings coming to hand are proving very informative.

Researched by: Canterbury Emu and Ostrich Marketers Ltd.

1.9.4 Livestock Prices

(i) Ostriches

Breeder prices have changed very little since 1999 as some smaller farmers drop out and some larger farmers get bigger. Price is still being determined on production, and farmers are being encouraged to keep better records with the sustainable farming fund research. As with other livestock, with the establishment of export markets for meat and hides, livestock prices can be expected to firm.

Prices for chicks are still being determined by schedule prices with their current values being up to 45% of schedule (at 3 months of age and no less than 30 kg). Chicks, juveniles and maiden breeders (ie first year breeders) that have an established breeding potential (ie breeding linear history) can have a potential value of 100% of schedule and values of adult breeders are now determined more on breed and their production level.

Prices as at January 2002

	Processing Stock	Breeding Stock
Chicks (day old)	\$50 - \$70	\$80 - \$120
Chicks (3 months, minimum weight 30 kg)	\$110 - \$180	\$150 - \$300
Yearlings	\$320 - \$580	\$400 - \$800
Adult cull stock	\$50 - \$120	-
Maiden breeders	-	\$400 - \$800
Proven breeders	-	\$500 - \$1000

(ii) Emus

With little demand in early 2002, values have been difficult to establish

Prices as at January 2002

	Processing Stock	Breeding Stock
Chicks (day old)	\$25 - \$50	\$50 - \$75
Chicks (3 months, minimum weight 8 kg)	\$40 - \$60	\$50 - \$80
Yearlings	\$100 - \$150	\$125 - \$175
Process birds (14 to 24 months)	\$120 - \$320 (depending on kgs of fat)	
Maiden breeders	-	\$150 - \$300
Proven breeders	-	\$200 - \$400

Researched by: Canterbury Emu and Ostrich Marketers Ltd.

1.9.5 Livestock Price Trends

The following prices are those ruling in January of each year.

\$ per head				
	2002	2001	2000	1999
Ostrich				
Chicks (3+ months)*	110 - 300	100 - 300	100 - 300	125 - 300
Yearlings	320 - 800	250 - 800	220 - 800	350 - 1000
Adults/Breeders	400 - 1000	200 - 1000	300 - 800	750 - 2000
Emu				
Chicks (2+ months)*	40 - 80	40 - 80	50 - 100	75 - 125
Yearlings	100 - 175	100 - 250	100 - 200	250 - 350
Adults/Breeders	150 - 400	200 - 500	250 - 750	300 - 850

*prices for chicks suitable for growing out to processing age

\$ per head			
	1998	1997	1996
Ostrich			
Chicks (3+ months)*	150 - 500	3,000 - 8,000	8,000 - 15,000
Yearlings	500 - 5,000	10,000 - 20,000	20,000 - 35,000
Adults/Breeders	1,500 - 10,000	20,000 - 40,000	40,000 - 65,000
Emu			
Chicks (2+ months)*	150 - 750	3,000 - 4,000	3,000 - 4,500
Yearlings	500 - 2,000	6,000 - 15,000	8,000 - 15,000
Adults/Breeders	1,500 - 5,000	15,000 - 25,000	20,000 - 30,000

*prices for chicks suitable for growing out to processing age

1.10 CAMELIDS

1.10.1 Introduction

Established as livestock animals in the developed world for just over ten years (after a century long ban on export from their continent of origin, South America), alpacas and llamas are farmed primarily for fleece and as companion animals. In South America they are also harvested for meat. Llamas are also used there as “beasts of burden”. Both species of camelid are still in the breeding phase in most developed countries.

1.10.2 Fibre Prices

(i) Alpaca

Sold primarily in three grades, Grade 1 (the finest micron) from the saddle, Grade 2 from the shoulders and flanks, and Grade 3 being the rest (the poorest micron). These grades all suffer from vegetable contamination as the animals roll daily in dust baths. Good camelid management in clean paddocks free of loose hay can result in quality fleeces. Baby (cria) fleece is the finest and usually commands greater prices. Prices range from \$50 per kg to only a few dollars per kg, depending on micron, colour and fleece contamination. Solid coloured fleeces are more valuable than those that are multi-coloured. Up to two kg of fine fleece can be obtained from adult animals shorn once per year. Fleece strand diameter ranges from 20 to over 40 microns and depends on age, nutrition, and genetics of the animals surveyed.

(ii) Llama

Generally regarded of lesser value than alpaca fleece because of the presence of coarser guard hairs.

1.10.3 Livestock Prices

Generally speaking, animals of Peruvian rather than Chilean descent are considered more valuable. In the case of alpaca this is because of the greater density and fineness of fleece and in llama because of greater variety of distinctive fleece colouration. Prices have remained static - at December 2001 they are unchanged from 1999 and 2000.

(i) Alpaca

Young females (solid colours)	\$8000 - \$15000
Young females (multi-colour, skewbald etc)	\$4000 - \$5000
Old females (approximately 10 years, solid colour)	\$3000 - \$4000
Old females (multi-colour)	\$2000
Certified breeding males (white, off white, Peruvian)	\$10000+
Certified breeding males (coloured, non-white, Chilean)	\$3000 - \$5000
Wethers (any colour)	\$600 - \$1000

(ii) Llama

Young females	\$4000 - \$8000
Old females	\$2000 - \$4000
Breeding Males	\$2000 - \$5000
Wethers	\$600 - \$800

Source: Alpaca and Llama Association of New Zealand.

1.11 CROPS

1.11.1 Wheat

(i) Contract prices 2002 and 2003 option

Premium and Gristing Wheat - South Island Contracts

Contracts delivered to one South Island Company

Premium 1 wheats: Monad, Domino, Regency and Otane

Premium 2 wheats: Kohika, Amarok and Torlesse

Gristing 1 wheat: Commando

Gristing 2 wheats: Belfield and Sapphire

Protein %	Premium 1	Premium 2	Gristing 1	Gristing 2
	\$ per tonne			
13.2 +	334	324	311.04	291.60
13.0 – 13.1	330	322	308.16	288.90
12.8 – 12.9	328	320	305.28	286.20
12.6 – 12.7	326	318	302.40	283.50
12.4 – 12.5	325	317	299.52	280.80
12.2 – 12.3	323	315	296.64	278.10
12.0 – 12.1	321	313	293.76	275.40
11.8 – 11.9	319	311	290.88	272.70
11.6 – 11.7	317	309	288	270
11.4 – 11.5	315	307	285.12	267.30
11.2 – 11.3	313	305	282.24	264.60
11.0 – 11.1	311	303	279.36	261.90
10.8 – 10.9	309	301	276.48	259.20
10.6 – 10.7	307	299	273.60	256.50
10.4 – 10.5	305	297	270.72	253.80
10.2 – 10.3	303	295	267.84	Below 10.4% protein, option to purchase @\$250
10.0 – 10.1	301	293	264.96	
< 9.9	260	260	250	

Note 1 A storage increment of 3 cents per tonne per day will be paid from 1 May in year of harvest.

Note 2 Freight allowance on Milling Wheat delivered to Christchurch from south of the Rakaia River is \$8 per tonne

MillingWheat - North Island Contracts for 2002**(Delivered to Palmerston North)**

Protein %	Monad \$ per tonne	Torlesse, Otane, Kohika \$ per tonne
13.5+	400.10	380.10
13.2 to 13.5	397.20	377.25
13.0 to 13.1	394.30	374.40
12.8 to 12.9	391.40	371.55
12.6 to 12.7	388.50	368.70
12.4 to 12.5	385.60	365.85
12.2 to 12.3	382.70	363.00
12.0 to 12.1	379.80	360.15
11.8 to 11.9	376.90	357.30
11.6 to 11.7	374.00	354.45
11.4 to 11.5	371.10	351.95
11.2 to 11.3	368.20	348.75
11.0 to 11.1	365.30	345.75
10.8 to 10.9	362.40	343.75
10.6 to 10.7	359.50	340.20
10.4 to 10.5	350.60	336.30
10.2 to 10.3	341.70	325.50
10.0 and below	335.00	323.00
9.8 and below	330.00	315.00
and/or below 150 falling number	Option to purchase	Option to purchase

Note: A storage increment of 8 cents per tonne per day will be paid from 1 May 2002.

1999/00 Contracts delivered to one South Island Company for wheat grown in the North Island were as follows:

Premium wheat \$258 to \$305

Gristing wheat \$245 to \$290

The actual price paid was determined by protein percentage as above.

Biscuit wheat

2000/02 contract prices offered by *Wrightsons*

Biscuit Wheat	Protein	Falling Number	Price
Claire	Up to 10.5%	220	\$270
	Up to 10.6% above	220	\$260
		Below 220	\$250

Weston Milling offered in 2001/02 the same index pricing for biscuit wheat contracts as above for Claire, Eclipse, Sapphire and Consort varieties.

Delivery point will be purchasers nominated Mill, or Consolidation points in Canterbury. Southland delivered Railhead or ex farm at buyers option.

A storage increment of 6 cents per tonne per day is payable from April 1st until the end of January 2003

Contracts offered in Canterbury and Southland for 1999/00 were as follows:

Protein %	Falling Number	Base price (\$ per tonne)	
		Canterbury	Southland
8 to 9.5	minimum 220	\$230	\$225
8 to 9.5	at or below 220 *	\$230	\$225
at or above 9.6	minimum 220	\$225	\$210
at or below 7.9	at or below 220	\$205	\$205

* Buyer has option to purchase (Canterbury and Southland)

Varieties: Era, Wasp and Caprimus

Delivery: Free on Rail or delivered to Consolidation Depot in Southland.

A storage increment of 6 cents per tonne per day was paid from 1 May 2000.

Feed Wheat

Canterbury:

For 2001/02 contracts the wheat price was \$280 per tonne.

The 2000/01 contract price was \$250 per tonne and the spot price went as high as \$330 per tonne.

Source: Wrightson Ltd

Three year contracts, for winter and spring wheat, were offered by *Tegel Foods* for 1999, 2000, 2001 and were paid for at \$220 per tonne delivered Christchurch.

Some one-year supply contracts, at \$220 per tonne plus 4 cents per tonne per day from 1 May 2000, were available for wheat delivered to Christchurch or Ashburton.

Southland:

Three-year winter wheat contracts were offered by *Tegel Foods* for 1999, 2000, 2001 at \$210 per tonne (delivery - Free on Rail to Southland). Spring wheat contracts were offered on the same basis as the winter wheat. Price per tonne was \$190 free on rail to Southland, for any variety. No storage increment was paid.

Seed Wheat

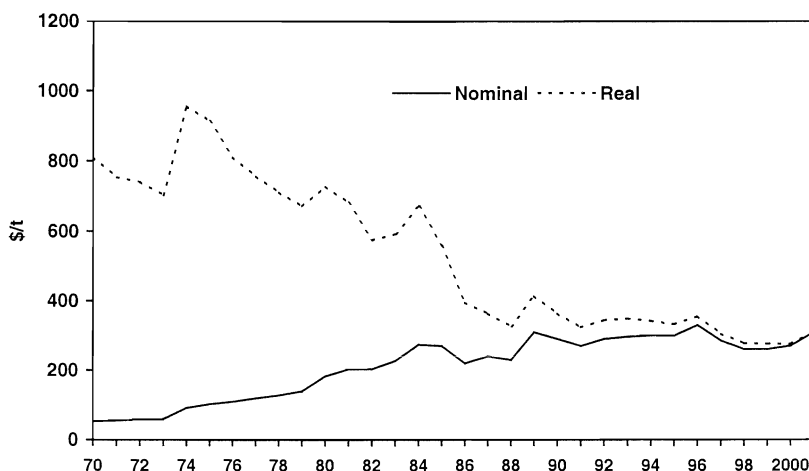
Seed crops will usually be based on milling or biscuit wheat contract prices with a premium of 7% over the milling price for 1st generation and 10% over the milling price for basic seed, if it meets specification.

Note: Royalties may be payable on grain for seed. See *Section 2.10.11* for details.

(ii) Wheat Price Trends

New Zealand Milling Wheat Prices 1971 to 2001 (Harvest Years)

The "Nominal" prices are the contract price paid to South Island growers at harvest in each year. The "Real" prices are based on the value of the \$NZ in December 2001 and are adjusted for inflation using C.P.I. figures, for each calendar year, as published by the *Reserve Bank of New Zealand*.



Source: Lincoln University.

1.11.2 Barley

(i) 2001/02 Contract Prices:

Malting

International Malting Company (NZ) Ltd contract price for malting barley in the South Island for the 2001/02 harvest was \$344.87 at 0% moisture (\$300 at 13.0% moisture), per tonne net delivered to the Ashburton depot. The contract price for the North Island

was \$395.35 at 0% moisture (\$340 at 14.0% moisture), per tonne net delivered prompt at harvest to Marton. This compares with 2000/01 South Island contract prices of \$258.62 at 0% moisture (\$225 at 13% moisture), per tonne net delivered to Ashburton; and North Island contract prices of \$308.14 at 0% moisture (\$265 at 14% moisture), per tonne net delivered to Marton.

The South Island daily storage increments from 1st April 2002 will be \$0.05 per day.

Penalties apply for barley with a screening percentage (<2.37mm) greater than 5%. (South Island 6% to 10% = \$1 per 1% per tonne and North Island 6% to 15% = \$1 per 1% per tonne).

In previous seasons contract prices for malting barley in the South Island was \$247.13 at 0% moisture, per tonne net delivered Rakaia, Ashburton or Timaru depots (1999/00 harvest), compared with the North Island price of \$290.70 per tonne (at 0% moisture) net, delivered Marton. These compare with \$253 per tonne and \$302.33 per tonne for the South and North Island respectively for the 1998/99 season.

Feed

Contract price for feed barley for 2001/02 was \$280 per tonne.

For 2000/01 the barley contract price was \$220 per tonne but the spot price went as high as \$350 per tonne.

Source: Wrightson Ltd

Otago/Southland contracts (*Tegel Foods*) for 1999, 2000, 2001 were \$190 to \$195 per tonne (free on rail).

These prices compare with 1997/98 figures of \$185 per tonne (free on rail) or \$175 per tonne ex farm. A storage increment was paid at 6 cents per day from 1 April 1998. Other contracts in 1997/98 were paid for at \$215 per tonne, delivered.

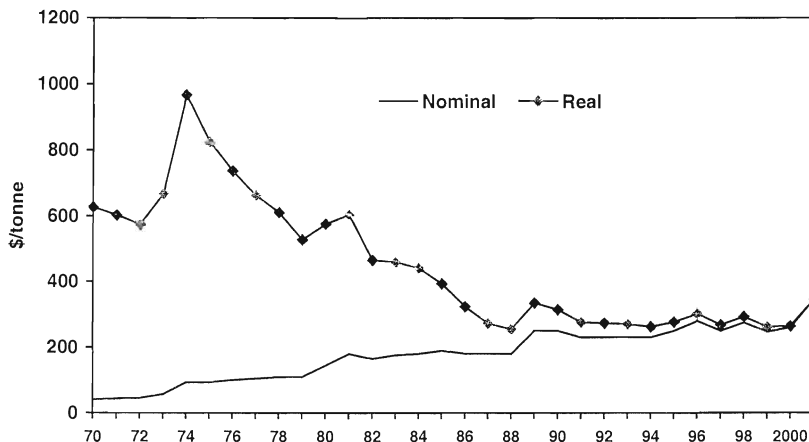
Seed

International Malting Company (NZ) Ltd seed contract price for 2001-2002 is the same as the malting contract, plus a \$35 per tonne premium paid on the machine dressed (MD) weight.

(ii) Barley Price Trends 1970 to 2001

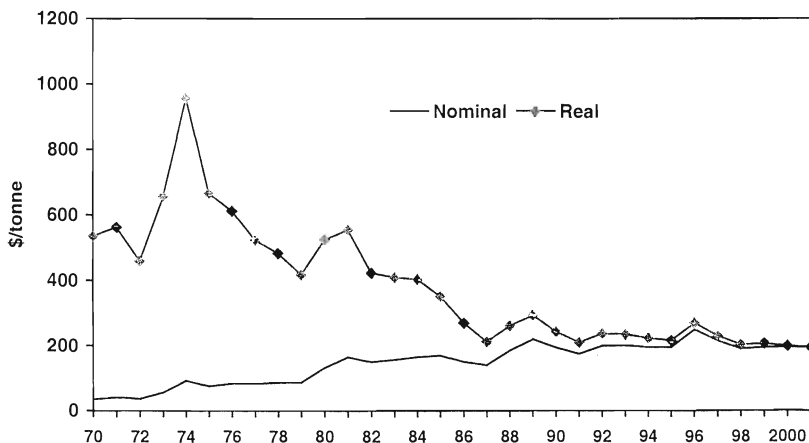
In the following two graphs the "Nominal" prices are the contract prices paid to South Island growers at harvest each year. The "Real" prices are based on the value of the \$NZ in December 2001, and are adjusted for inflation using C.P.I. figures for each calendar year, as published by the *Reserve Bank of New Zealand*.

N.Z. Malting Barley Prices 1971 to 2001 (Harvest Years):



Source: Lincoln University

N.Z. Feed Barley Prices 1970 to 2001 (Harvest Years):



Source Lincoln University.

1.11.3 Oats / Oaten Hay

Mid Canterbury Contracts.

Peter Cates Ltd offered prices of \$300.00 per tonne for field dressed oats for the 2002 harvest.

South Island contract prices for 2001/02 were \$285 to \$320 delivered to Dunedin (*Harraways*) compared with \$215 per tonne delivered to Gore (*Fleming and Co*) in 1999/00. The actual price payable is determined by reference to the Quality Index; deductions being made for high screening and low kernel weight. There will be also be a storage increment of 7 cents per tonne per day paid to the grower from 1 May 2002.

Wrightson offered oat contracts for the 2002 season at \$300 per tonne, delivered to the buyers nominated consolidation points at Ashburton, Christchurch or Timaru. Compared with \$240 to \$245 per tonne offered to Mid Canterbury growers for field dressed oats on the free market during 1998 and 1999.

Prices for 1998/99 were \$220 per tonne delivered to Dunedin (*Harraways*) and \$215 per tonne delivered to Gore (*Fleming and Co*). Prices in 1997/98 were \$215 to \$225 per tonne if delivered to Dunedin (*Harraways*) and \$215 per tonne if delivered to Gore (*Fleming and Co.*). The 1996/97 price ranged from \$240 to \$250 per tonne compared with the 1995/96 average of \$280 per tonne.

Few contracts were available in the North Island but where they were, prices were likely to be slightly higher per tonne than South Island prices.

Oat hay in the South Island as at January 2002 was \$5 for a conventional bale and \$50 for the medium squares (10-bale equivalent), similar to the previous season. 1999 prices were \$3.40 to \$3.60 for a conventional square bale, \$34 to \$36 for a large round (12 conventional bale equivalent) and \$34 to \$36 for a medium square (10 conventional bale equivalent). This compares to \$3.60 to \$3.80 for a conventional square bale and \$43 to \$45 per large round bale in 1998/99.

Source: Pyne Gould Guinness.

1.11.4 Peas

(i) Field peas

Prices offered for peas in bulk, grown under contract, for the following seasons were:

Maple peas	\$390 per tonne 2001/2002 None contracted 2000/2001 None contracted 1999/2000 \$320 per tonne 1998/99 harvest \$400 per tonne 1997/98 harvest – Canterbury.
Prussian peas	\$400 per tonne 2001/2002 \$320 per tonne 2000/2001 \$320 per tonne 1999/2000 \$310 to \$320 per tonne 1998/99 \$350 per tonne 1997/98.

Marrowfat peas	\$520 per tonne (0-5% bleach) 2001/2002
	\$520 per tonne (6-12% bleach) 2001/2002
	\$450 per tonne (13-30% bleach) 2001/2002
	\$280 per tonne (>30% bleach) 2001/2002
	\$580 per tonne (0-5% bleach) 2000/2001
	\$500 per tonne (6-9% bleach) 2000/2001
	\$480 per tonne (10-12% bleach) 2000/2001
	\$420 per tonne (13-15% bleach) 2000/2001
	\$300 per tonne (>31% bleach) 2000/2001
	\$575 per tonne (0-5% bleach) 1999/2000
	\$350 per tonne (11-30% bleach) 1999/2000
	\$450 per tonne (5% bleach) 1998/99
	\$300 per tonne (30% bleach) 1998/99
White Peas	\$340 per tonne 2001/2002
	\$270 per tonne 2000/2001
	\$260 per tonne delivered to Timaru 1999/2000
	\$250 per tonne delivered to Christchurch 1999/2000
	\$260 per tonne 1998/99
	\$300 to \$320 per tonne 1997/98

All peas are on a split payment basis (60% March / 40% July)

Source: Peter Cates Ltd

Free market prices - Canterbury (per tonne).

	January 1998	January 1999	January 2001	2001/02
Prussian Peas	\$300 - \$320	\$320 - \$330	\$340 - \$350	\$380 - \$390
Rondo	\$300 - \$320	\$320 - \$330	\$350 - \$360	\$380 - \$390
Maple	\$250 - \$280	\$250	Nil	\$380 - \$390
White	\$250 - \$260	\$260	\$270 - \$280	\$350 - \$360
Marrowfat	\$300 - \$350	\$350 - \$450	\$450 - \$520	\$430 - \$510
Feed	\$260	\$250	\$250	\$320 - \$330

(ii) Garden peas

Canterbury

\$ per tonne machine dressed				
	1997/98	1998/99	1999/00	2001/02
Freezer varieties	550	500	500	500 - 570
Onwards	550	500	500	500
Masseys	620	550	550	570 - 600
Alderman	650	550	550	600 - 650

(iii) Freezer peas (See Section 1.14.15.)

1.11.5 Maize/Maize Silage

(i) Maize

Grower Price per tonne @ 14% moisture				
2001/02	Waikato	Bay of Plenty	Gisborne	Manawatu
In paddock price	\$270	\$260	\$245	\$265
Dryer price	\$300	\$300	\$300	\$300
2000/01				
In paddock price	\$220	\$210	\$200	\$220
Dryer price	\$250	\$250	\$250	\$250

(ii) Maize Silage

Sale Price per kilogram Dry Matter		
2001/02	North Island	South Island
Paddock standing	17 to 19 cents / kg DM	15 to 19.5 cents / kg DM
2000/01		
Paddock standing	14 to 17 cents / kg DM	12 to 14 cents / kg DM

The sale price (not contract) for the 1999/00 season was between 11 and 16 cents per kilogram dry matter for standing maize, and between 15 and 23 cents per kilogram in a stack. (Includes harvesting and cartage etc)

The range is due to supply and demand, and the price of alternative stock supplements. The regional milk price and quotas will also effect the value of maize silage.

Previous seasons' prices have been:

1998/99: 17 cents per kilogram dry matter plus cartage and cover in the Waikato area.

1997/98: 15 to 18 cents per kilogram dry matter in Waikato, Taranaki, Bay of Plenty and Northland and 10 to 16 cents per kilogram of dry matter in Manawatu, Wairarapa, and in the South Island.

1.11.6 Ryecorn

South Island: The 2001/02 contract price for seed was \$350 per tonne. This compares with \$320 per tonne in 2000/01, \$290 to \$300 in 1999/00, \$310 in 1998/99 and \$300 to \$320 in 1997/98 (unchanged from 1996/97).

Source: Peter Cates Ltd

1.11.7 Lentils

Minimum contract price offered by Peter Cates Ltd was \$500 per tonne for the 2001/02 season. In 2000/01 the minimum price was \$500 to \$550 per tonne for red lentils and \$600 to \$650 per tonne for yellow lentils. This was the same as 1999/00. Prices for 1998/99 were \$550 per tonne and \$500 in 1997/98.

1.11.8 Triticale

Growers in 2001/02 received \$280 per tonne for seed, compared with \$250 per tonne in 2000/01, and \$220 per tonne in 1999/00 which was the same as the 1998/99 and 1997/98 prices. The harvest price for 1996/97 was \$250 per tonne.

Source: Peter Cates Ltd

1.11.9 Lupins

The price for blue lupins (machine dressed) in the 2001/02 season was \$420 per tonne, compared with \$420 to \$450 in 2000/01, \$375 for 1997/98 and \$400 per tonne for 1996/97.

White lupins in the 2001/02 season (machine dressed) fetched between \$500 to \$550 per tonne, compared to \$550 in 2000/01.

1.11.10 Oilseed Rape

For the 2001/02 season growers could expect between \$1300 and \$1450 per tonne (dressed). This was very similar in the 2000/01 season. No price for 1999/00 season was available, but in Canterbury during the 1998/99 season, growers could expect to receive approximately \$450 per tonne. Southland growers received a minimum of \$475 per tonne for the 1997/98 harvest compared with \$525 per tonne for the 1996/97 harvest.

1.11.11 Linseed

Canterbury growers could expect to receive \$580 per tonne for the 2001/02 season. This compares with \$520 per tonne in 2000/01, \$450 per tonne in 1999/00, \$480 to \$500 per tonne in 1998/99 and \$480 per tonne for 1997/98.

Source: Peter Cates Ltd

1.11.12 Evening Primrose

Prices for the 2001/02 season are in the region of \$2.85 to \$3.00/kg. No price for 1999/00 was available. Canterbury growers received approximately \$2.80 per kilogram in 1998/99 and \$3.00 to \$3.50 per kilogram in 1997/98.

1.11.13 Borage

The 2001/02 season growers could expect \$6 per kg, which was similar to the 2000/01 season. No 1999/00 prices were available, however farmers in the South Island received \$7 per kg from the 1998/99 borage harvest.

1.12 SMALL SEEDS

The price paid for small seeds is based on machine dressed weight, which depends on the purity of the seed line. Prices are variable and depend on the region and season. The following estimated prices for 2002 are for first generation certified seed, minimum 99/90 purity/germination (information from Canterbury and Manawatu sources). Prices given are base payments, which are supplemented in some cases by increments for later payments.

1.12.1 Pasture Grasses

(i) Ryegrasses

Cultivar	\$ per kg	Cultivar	\$ per kg
901	1.50	Grasslands Samson	1.60
Andy	1.50	Grasslands Tama	1.20 to 1.40
Aries HD	1.50	Grazmore	1.35
Banks	1.50	Gromore	1.30
Bronsyn	1.55	Gromore Plus	1.30
Cannon	1.40	Gwendal	1.35
Concord	1.50	Horizon	1.40
Conker	1.50	Impact	1.60
Cordura	1.50	Jester	1.55
Crusader	1.40	Joust	1.55
Dargle	1.50	Kingston	1.40
Dobson	1.55	Marbella	1.50
Duet	1.50	Marathon	1.30
Ellet	1.55	Matrix Meridan	1.50
Embassy	1.45	Maverick gold	1.50
Endurance	1.50	Nevis	1.55
Exalta	1.50	Pacific	1.50
Excalibur	1.55	Pastoral	1.40
Feast II	1.50	Prime	1.50
Flanker	1.55	Progrow	1.20
Galaxy	1.45	Quartet	1.55
Geyser	1.30	Repel	1.50
Grasslands Ariki	1.00	Solo	1.30
Grasslands Greenstone	1.40	Suprema	1.50
Grasslands Greenstone ES	1.40	Tabu	1.55
Grasslands Manawa	1.00	Tambour	1.55
Grasslands Marsden	1.50	Tonyl	1.25
Grasslands Moata	1.20 to 1.40	Vedette	1.55
Grasslands Nui, Ruanui	1.00 to 1.20	Yatsyn	1.55
Grasslands Paroa	1.00	Uncertified Ryegrass	0.90

(ii) Timothy	\$ per kg
Grasslands Charlton	4.25
Grasslands Kahu	4.00
Viking	4.25
(iii) Cocksfoot	\$ per kg
Eastwood	2.50
Grasslands Kara	2.60
Grasslands Wana	3.20
Grasslands Tekapo	2.50
Vision	3.00
(iv) Fescues	\$ per kg
Dovey	2.80
Grasslands Advance	4.25
Lunibell	3.00
Tall fescues	1.60
Torpedo	1.90
Vulcan	2.50
(v) Prairie Grass	\$ per kg
Dixon	1.00
Grasslands Matua	1.00
Lakota	1.00
(vi) Other Grasses	\$ per kg
Maru Phalaris	5.00
Brome	1.00 - 1.20
Crested Dogstail	2.70
(vii) Plantain	\$ per kg
Plantain	3.25

1.12.2 Turf / Amenity Species

(i) Browntop	\$ per kg
NZ Browntop	6.00
Grasslands Egmont	5.50
Grasslands Muster	6.00
Grasslands Sefton	7.50
(ii) Other	\$ per kg
Yarrow	10.00
Turf Ryegrasses	1.30 - 1.50
Turf Fescues	1.50 - 1.70
Chewings Fescue	3.00

1.12.3 Legumes

(i) White Clover	\$ per kg
Arran	5.50
Demand	3.80
Grasslands Challenge	4.00
Grasslands Huia	3.50 - 3.80
Grasslands Kopu	4.00
Grasslands Nu Siral	4.00
Grasslands Pitau	4.00 - 5.00
Grasslands Tahora	3.50
Overseas Cultivars	3.60
Prestige/Prop	3.50
Sustain	3.80
Will	4.00
Uncertified White clover	2.80
(ii) Red Clover	
Grasslands Colenso	4.00
Grasslands Hamua	3.80
Grasslands Pawera	6.50
Grasslands Turoa	5.00
G27	5.50
Redmore	5.00
(iii) Lucerne	
Grasslands Kaituna/ Grasslands Otaio	7.50
Grasslands Torlesse	7.50
Wairau	5.00 - 6.00
Others	6.00
(iv) Lotus	
Grasslands Goldie	10.00
Maku Lotus	8.00

1.12.4 Chicory

Grasslands Puna	5.00 - 6.00
Grous	8.00

1.12.5 Brassicas

Rape	1.00 - 1.15
Kale	2.50 - 2.80
Swedes	1.90
Turnips	1.40 - 2.00
Forage Rape	1.15
Forage Brassicas	1.35

Source: New Zealand Grain and Seed Trade Association Inc., FAR and AgResearch

1.13 FRUIT PRODUCTION

1.13.1 Fruit Prices - General

The prices paid to growers for fruit vary markedly (sometimes by several hundred percent) both within and between years and between districts. They are seasonal, vary daily and are very much dependent on climate and its subsequent effects on both availability and quality of fruit offered.

The location of the property in relation to population centres and the amount of produce that an individual producer provides over the course of a season, also influences prices received. Whether the produce is for local consumption or for export is another major influence for a range of fruit.

Wholesale prices paid at auction and details of contracts for process fruit, particularly that which is grown organically, is generally confidential and in many cases is negotiated with growers on an individual basis. Again, prices vary markedly with district and season.

1.13.2 Apples

(i) Export

ENZA New Zealand (International) Indicative 2002 Market Returns

These can no longer be supplied, as the information is too sensitive in the new deregulated environment.

Total Payment to Growers: (Export Fruit Average Payment, \$ per 18 kg carton)

Enza Grade	Average across all grades and sizes.					
	2001	2000	1999	1998	1997	1996
Annaglo	24.79	12.53	15.05	15.27	14.33	17.08
(Royal Gala)						
Belle Cox	-	-	-	-	8.21	16.2
(Cox's Orange)						
Braeburn	17.71	12.20	7.88	14.18	9.73	11.89
Brookfield	-	-	15.05	16.64	-	-
(Royal Gala)						
Canta Red	-	-	-	-	5.99	8.72
Cascade	54.99	-	-	-	-	-
Coromandel	22.31	12.28	6.39	10.65	6.16	10.11
Red						
Cox's Orange	18.98	11.16	12.68	13.60	85.38	15.45
Pippin						

Average across all grades and sizes						
Enza Grade	2001	2000	1999	1998	1997	1996
Fiesta	21.01	11.31	14.42	11.04	1.28	11.69
Fuji	26.70	19.61	14.54	17.42	11.34	13.06
Gala	20.14	13.42	8.34	14.05	12.1	12.02
Galaxy (Royal Gala)	-	-	15.05	15.21	13.46	14.62
Golden Delicious	17.45	11.47	7.98	6.90	8.72	6.21
Granny Smith	19.25	21.10	7.06	7.22	11.92	10.08
GS48	19.61	20.17	10.17	8.35	12.24	13.32
Hillwell	-	-	-	-	9.37	11.28
Locbuie	-	-	-	-	9.17	11.54
Moonglo	27.17	-	-	-	-	-
Pacific Beauty	21.98	26.74	18.83	-	-	-
Pacific Queen	-	-	9.01	-	-	-
Pacific Rose (Scired)	21.57	19.47	-	-	-	-
Pacific Rose (Sciros)	23.47	16.12	12.86	20.30	15.95	20.58
Pink Lady	23.33	14.52	20.75	27.24	15.18	21.22
Red Delicious	10.98	10.12	3.69	6.97	.46	4.27
Regal	-	-	9.03	8.41	3.99	9.55
Regala	19.24	15.56	12.39	10.72	13.24	11.08
Royal Gala	20.35	15.41	13.71	14.60	13.03	15.20
Ruby Bay	-	-	-	15.50	8.60	2.48
Pippin						
Scifresh	36.12	-	-	-	-	-
Southern Rose	15.74	11.58	9.47	19.50	14.22	17.07
Southern Snap	17.37	16.75	15.05	13.52	8.65	11.91
Splendour	-	-	-	-	6	11.57
Sturmer Pippin	23.56	14.06	9.87	10.14	8.78	11.85
Sundancer	-	-	14.53	12.71	12.34	20.04
Other	-	-	14.62	22.47	13.37	15.92
Total Apples	-	-	10.21	14.19	9.76	12.23

Source: Enza New Zealand

Export returns in the Nelson region

	\$/TCE	
	2001/02f	2000/01
Braeburn	17.09	17.90
Cox	17.36	16.63
Fuji	17.19	17.10
Pacific Rose	19.10	18.45
Royal Gala	17.41	15.10
Southern Rose	18.68	16.40

Export returns in the Hawkes Bay Region

\$/TCE		
	2001/02f	2000/01
Braeburn	16.44	16.10
Fuji	19.10	18.33
Granny Smith	22.68	21.54
Pacific Beauty	22.83	24.13
Pacific Rose	18.97	20.75
Pink Lady	21.97	23.22
Royal Gala	17.00	16.50

Source: Horticulture Monitoring Report - July 2001

(ii) Processing/Standard/Reject.

Payment varied according to variety and ranged from Braeburn \$60 per tonne initial payment plus a supplementary payment of \$20.25 per tonne to Granny Smiths at an initial payment of \$105 per tonne plus \$20.25 per tonne supplementary.

Source: Horticulture Monitoring Report - July 2001

ENZA price for fruit submitted ex Packhouses for 2000/01 was \$60 per tonne. These prices are compared with \$30 per tonne in 1999/00, \$24.00 per tonne in 1998 and with 1997 payments of \$95.25 per tonne.

Central Otago growers were expecting to receive \$40 per tonne in 2000. This is the same as the price received in 1999.

Source: Ward's Horticulture

(iii) Local Market Price

Canterbury growers received up to \$1.50 per kg for some varieties in 2000/2001 but most varieties fetched under \$1.00 per kg. Gate sales were around 40 to 50 cents per kg.

(iv) Organic Apples

Expected average returns for fully certified organic product in 2001/02 are \$35 to \$40 per tray carton equivalent.

Source: Horticulture Monitoring Report - July 2001

1.13.3 Avocados

(i) Local Market

Tag 2 grade in 2001 was \$10 per tray

Tag 3 grade (more suitable for processing as oil). Fruit in this grade is being removed from the market. Average price for Tag 2 and 3 grades was \$7 per tray.

(ii) Export Market

Average prices for export fruit were \$15 per tray in 2001.

1.13.4 Berryfruit

(i) Strawberries (Export)

Average grower return was \$15 per 3kg tray for the 2000/2001 season with prices in the early part of 2001 prices higher due to low volumes, and favourable exchange rate.

(ii) Blueberries

Fresh blueberry averaged \$15 per kg, with the frozen product returning around \$4.50 per kg in the 2001 season.

(iii) Blackcurrants (Process)

Returns to growers for the 2001 season were around \$1.75 per kg.

Source: Horticulture Monitoring Report – July 2001

1.13.5 Citrus

Prices for all citrus fruit types vary markedly with grade and variety.

(i) Grapefruit

In 2001, large yellow grapefruit of choice grade ranged from 36 cents per kg to \$1.14. The juice price was 18 to 19 cents per kg.

(ii) Lemons

2001 prices for Meyer lemons (medium sized, choice grade) ranged from 40 cents per kg to \$2.00.

Villa Franca/Genoa variety prices for the local market were 90 cents to \$1.50 and for export grade \$1.21 to \$1.61 per kg.

Medium sized Yenben lemons (mostly grown for the Japanese export) market fetched \$1.79 to \$2.00 while the same variety on the local market ranged from 77 cents to \$1.50 per kg.

(iii) Mandarins

Large, choice grade Satsuma mandarin prices ranged from 39 cents to \$3.40 in 2001

Export prices for Satsuma mandarins paid early in the 1999/2000 season were \$4.20 per kg. However, later in the season, lower quality of fruit on offer caused this price to fall to approximately \$2.50 per kg (Gisborne).

Source: MAF Farm Monitoring Report - North Central Region, July 1999.

(iv) Oranges

2001 prices for large, choice grade Navel oranges ranged for 36 to 99 cents per kg.

Navel orange returns in the 1998 season in the Gisborne region were approximately 55 cents per kg (up from 30 cents per kg received in the 1997 season due to lower yields in 1998).

Source: MAF Farm Monitoring Report - North Central Region, July 1999.

Valencia Oranges (juice) fetched between 34 cents (prior to juice contracts becoming available) and 81 cents per kg during the 2001 season.

Juice contracts at 48 cents per kg were offered later in the season.

Prices for this variety were about 45 cents per kg in 1998/99 compared with 25 cents in the 1997/98 season.

Source: MAF Farm Monitoring Report - North Central Region, July 1999.

(v) Tangelos

Large choice grade prices varied between 35 cents per kg and \$1.42, with juice grade fruit fetching 20 cents per kg in 2001.

Tangelo prices in the 1998 season in the Gisborne region were 50 to 55 cents per kg, unchanged from the previous season.

Source: MAF Farm Monitoring Report - North Central Region, July 1999.

1.13.6 Feijoa

(i) Local Market.

Fresh fruit sales total about 500 tonnes annually. Demand for large sized premium grade fruit is increasing faster than supply. This is largely due to marketing and promotional initiatives of the *Feijoa Growers Association*. In recent years wholesale prices (exclusive of GST) for premium grade fruit have been

Large (90 ⁺ g)	\$5 per kg in March and early April falling to \$3 per kg, in the peak of the season, in early May.
Medium (65 to 90g)	\$5 per kg in March and early April falling to \$2 per kg in the peak of the season, in early May.
Small	Prices can be good early in the season but fall away quickly to around \$1 per kg.

Prices for mediocre and poor fruit are normally much less.

(ii) Export

Fresh fruit sales total about 40 tonnes annually. Most goes to North America where the main demand is for medium sized fruit. Prices paid to growers vary from \$40 per tray early in the season to \$18 to \$20 per tray mid season. Tray weights range from around 2.4 kg for small fruit (39 count) to a little over 3 kg for large fruit.

(iii) Processing

Processed volumes are steadily increasing and last year totalled about 450 tonnes. Most of the fruit goes into blended juices and wines. Prices received by growers (at the gate prices) vary from around 70 cents per kg to \$1.00 per kg depending on the size and quality of the fruit. There is a rapidly increasing demand for organic product, which cannot be met from current supply.

For further details please contact:

Dennis Milne, (Secretary), N.Z. Feijoa Growers Association, Lockwood Road,
R D 5, Palmerston North.

1.13.7 Grapes

Bulk Grapes for Wine Production

2001

Average Grape Price \$ per tonne (GST excl)

	Auckland	Waikato /BOP	Gisborne	Hawkes Bay	Wellington/ Wairarapa	Marlborough	Nelson	Canterbury	Central Otago
Variety									
Breidecker	-	-	417.69	-	-	750.00	-	480.00	-
Chardonnay –	1944.67	1354.76	942.54	1832.10	1981.31	1932.53	1843.75	1664.19	2205.01
Mendoza & Clone 15									
Clones 4 & 5	1425.00	-	669.48	1123.02	1909.00	1547.80	2000.00	-	-
All other clones	1191.02	1336.21	817.75	1610.66	1870.40	1771.69	1604.81	1473.30	1979.03
Chasselas	-	-	570.02	-	-	-	-	-	-
Chenin Blanc	-	613.66	521.25	737.50	-	-	-	-	-
Flora	-	-	530.00	-	-	-	-	-	-
Gewurztraminer	-	-	1171.99	1588.27	-	1895.59	1669.95	-	1800.00
Muller Thurgau	-	-	471.02	509.08	1260.00	586.52	-	-	-
Muscat Varieties	-	-	450.92	539.12	-	-	-	-	-
Palomino	-	-	384.36	-	-	-	-	-	-
Pinot-Gris	1640.19	-	504.56	1684.07	1993.80	1744.06	-	2232.92	1808.89
Reichensteiner	-	-	515.59	-	-	-	-	-	-
Riesling	1000.00	-	459.18	1341.92	1393.37	1427.39	1359.30	878.39	2178.46
Sauvignon Blanc	-	1145.65	664.80	1342.26	1680.72	1971.75	1822.03	1436.36	1876.06
Semillon	-	-	905.68	1086.31	-	1760.33	-	-	-
Sylvaner	-	-	-	-	-	-	-	-	-
Other White Wines	1700.00	-	438.30	574.56	-	1514.00	-	1680.00	-
Blauberger	-	-	423.75	-	-	-	-	2020.00	-
Cabernet Franc	1200.00	-	1178.82	2086.22	1676.69	2499.08	-	-	-
Cabernet Sauvignon	1513.69	1057.13	1399.41	1939.33	1569.94	1746.59	2065.50	950.00	2000.00
Malbec	-	1861.54	-	1669.96	-	1980.75	1980.00	-	-
Merlot	1362.56	1580.90	1446.31	2088.49	1896.26	2156.48	1905.56	-	1732.00
Pinotage	-	-	1091.23	2210.53	-	1108.82	-	-	-
Pinot Noir	1033.98	637.89	664.32	1028.61	2567.78	2072.49	1847.05	2165.30	2894.31
Syrah	1350.00	-	1739.00	1976.84	2111.30	1969.00	1980.00	-	-
Other Reds	968.61	920.00	1500.00	1526.05	1000.00	1801.48	-	-	-

Source: Wine and Grape Industry Statistical Annual 2001 (Winegrowers of New Zealand).

2000

Average Grape Price \$ per tonne (GST excl)

	Auckland	Waikato /BOP	Gisborne	Hawkes Bay	Wellington/ Wairarapa	Marlborough	Nelson	Canterbury	Central Otago
Variety									
Breidecker	-	-	379.08	531.30	-	700.00	-	221.15	950.00
Chardonnay – Mendoza & Clone 15	1601.68	1457.02	1400.80	1810.18	1909.92	1900.76	1708.20	1291.24	2047.59
Clones 4 & 5	1501.31	-	840.26	1206.29	1437.50	1491.39	1650.00	1200.00	-
All other clones	1747.57	992.04	1126.43	1394.71	1893.21	1676.30	1599.15	1178.96	2199.20
Chasselas	-	-	488.29	455.11	-	-	-	-	-
Chenin Blanc	-	675.85	560.00	749.07	1200.00	-	-	-	-
Flora	-	-	519.59	-	-	-	-	-	-
Gewurztraminer	-	-	1068.63	1426.62	-	1842.49	1300.00	-	2000.00
Muller Thurgau	-	-	545.06	538.03	-	555.15	-	617.67	-
Muscat Varieties	-	-	473.48	495.13	-	-	-	-	-
Palomino	-	-	393.82	-	-	-	-	-	-
Pinot-Gris	1348.10	-	992.35	1511.81	1883.17	1638.84	-	1257.50	1836.23
Reichensteiner	-	-	537.47	-	-	-	-	-	-
Riesling	-	-	516.97	1070.17	1446.05	1265.24	1234.40	878.12	1837.99
Sauvignon Blanc	-	1186.48	764.46	1237.34	1553.16	1694.47	1500.02	1414.04	1563.11
Semillon	-	-	824.01	1152.63	-	1432.24	800.00	-	-
Sylvaner	-	-	-	-	-	-	-	-	-
Other White Wines	1340.00	500.00	494.06	489.41	-	1186.95	-	1431.30	-
Blauberger	-	-	508.54	-	-	-	-	-	-
Cabernet Franc	1200.00	-	1258.74	1923.81	1758.94	1813.00	1575.00	-	-
Cabernet Sauvignon	1311.73	1131.88	778.69	1751.54	2030.28	1684.89	1657.98	-	-
Malbec	-	1643.34	-	1637.19	-	2228.36	-	-	-
Merlot	1406.25	1950.00	1325.64	1788.46	1830.23	2466.87	1532.72	-	2300.00
Pinotage	1400.00	-	942.68	1206.67	-	932.48	-	-	-
Pinot Noir	1268.07	1684.48	916.87	1079.67	2242.99	1971.01	1403.74	1544.78	2660.88
Syrah	1770.00	-	-	1807.92	2100.00	1903.41	1800.00	-	-
Other Reds	-	1250.00	-	1791.03	-	1466.86	-	2079.06	-

Source: Wine and Grape Industry Statistical Annual 2000 (Winegrowers of New Zealand).

1999

	Auckland	Gisborne	Hawkes Bay	Wellington/ Wairarapa	Marlborough	Nelson	Canterbury	Central Otago	NZ Average
Variety									
Breidecker	-	532	537	-	700	500	566		547
Chardonnay – Mendoza & Clone 15	1738	1310	1752	1866	1709	1843	1480	1860	1507
Clones 4 & 5	1400	790	1042	1800	1474	-	-	1630	1024
All other clones	1592	1111	1425	1845	1568	1397	1225	1903	1346
Casselas	-	505	476	-	-	-	-	-	494
Chenin Blanc	-	446	632	1200	1200	-	-	-	570
Flora	-	525	-	-	-	-	-	-	525
Gewurztraminer	-	1011	1427	-	1459	1300	1482	1771	1266
Muller Thurgau	-	515	505	1200	520	-	630	-	513
Muscat Varieties	-	461	504	-	560	-	-	-	468
Palomino	-	407	500	-	-	-	-	-	420
Pinot-Gris	1225	783	1695	1672	1563	-	1356	1857	1308
Reichensteiner	1300	537	812	-	-	-	-	-	538
Riesling	-	555	876	1717	1161	775	893	1835	1068
Sauvignon Blanc	-	755	1130	1584	1435	1211	733	1619	1324
Semillon	1400	715	1002	-	1259	1050	-	-	894
Sylvaner	-	487	643	-	-	-	-	-	525
Other White Wines	1340	471	511	-	-	600	1647	-	498
Blauberger	-	486	1100	-	-	1000	1100	-	543
Cabernet Franc	1470	844	1745	1818	1640	1500	-	-	1484
Cabernet Sauvignon	1580	667	1631	2136	1434	1204	1000	-	1553
Malbec	-	1500	1488	-	1742	-	-	-	1496
Merlot	-	1324	1760	1815	1774	1651	-	2650	1677
Pinotage	1235	1133	1079	-	1145	-	-	-	1136
Pinot Noir	800	908	1032	2103	1589	1431	1199	2090	1434
Syrah	-	1500	1812	2000	1265	1850	-	2300	1762
Other Reds	-	1500	1127	-	1390	-	2050	1053	874

Source: Wine and Grape Industry Statistical Annual 1999 (Winegrowers of New Zealand).

1998

	Auckland	Gisborne	Hawkes Bay	Wellington/ Wairarapa	Marlborough	Nelson	Canterbury	Central Otago	NZ Average
Variety									
Breidecker	-	450	450	-	700	-	560	950	488
Chardonnay - still	1296	1357	1481	1900	1481	1391	1535	2170	1428
Chardonnay - sparkling	-	1155	-	-	1416	-	-	1592	1397
Casselas	-	457	435	-	-	-	-	-	449
Chenin Blanc	-	536	706	1225	636	-	-	-	636
Flora	-	508	-	-	-	-	-	-	508
Gewurztraminer	-	1165	1123	1500	1150	-	-	1719	1148
Müller Thurgau	-	482	454	-	477	-	650	-	444
Muscat Vaarieties	-	480	479	-	-	-	-	-	481
Palomino	501	403	-	-	-	-	-	-	420
Pinot-Gris	1200	1018	-	-	1412	-	-	1753	1243
Reichensteiner	-	477	812	-	-	-	-	-	478
Riesling	-	555	1035	1014	948	818	979	1717	929
Sauvignon Blanc	1037	967	1166	1978	1368	1285	1462	1593	1286
Semillon	1450	867	1078	1300	1178	1200	-	-	972
Sylvaner	-	450	496	-	-	-	-	-	515
Other White Wines	1120	1120	478	-	1450	-	-	-	510
Blauberger	-	514	-	-	-	-	1420	-	539
Cabernet Franc	1300	1076	1768	1900	1354	1700	-	-	1437
Cabernet Sauvignon	1538	1087	1656	1796	1375	1250	-	-	1590
Malbec	-	1000	1612	-	2103	-	-	-	1609
Merlot	-	1306	1691	1874	1477	1708	-	-	1603
Pinotage	-	1104	1177	-	950	-	-	-	1075
Pinot Noir - still	-	841	977	1845	1353	1182	1718	2310	1241
Pinot Noir - sparkling	-	985	983	-	1362	-	-	1674	1276
Syrah	-	1000	1357	2000	1781	-	-	-	1449
Other Reds	725	-	1420	975	1155	578	-	-	875

Source: Wine Institute of New Zealand

1.13.8 Kiwifruit

(i) Export Returns (per tray)

	94/95	95/96	96/97	97/98	98/99	99/00	00/01
Gross Returns	\$4.90	\$4.22	\$4.29	\$4.31	\$6.50	\$7.62	-
Orchard Gate Returns	\$3.00	\$2.50	\$2.64	\$2.59	\$4.08	\$5.26	\$4.34

Source: ZESPRI International Ltd

(ii) Progress Payments for 2001 compared with the previous season

Pattern of progress payments is for the average grower of Class 1 ZESPRI™ GREEN Kiwifruit.

	Month	\$/tray 1999/00	\$/tray 2000/01
Paid to	Submit Price (incl. materials & packing)	2.25	-
Date:	Paid to FOB shipping	-	3.44
	Paid Temua and organic conversion	-	0.02
	July	0.20	-
	August	0.20	-
	September	0.20	-
	October	0.60	0.17
	November	1.19	1.05
	November Conversion Premium	0.01	-
	December	0.77	1.15
	January	0.21	0.36
	February	0.13	0.00
	March	0.13	0.18
	April	0.12	0.10
	May	0.12	0.19
	June	-	0.22
	Kiwistart	0.32	-
	Loadout payment (incl. storage incentive)	1.18	-
	Rounding adjustment	0.01	-
Total available for distribution to growers (June)		\$7.62	\$6.88

Note: Amounts are for ZESPRI™ GREEN Kiwifruit (Class 1) only.

Source: ZESPRI International Ltd.

(iii) Organic Kiwifruit prices

The premium for organic kiwifruit in 2000 was 55 cents per tray compared with \$2.16 per tray in 1999.

Source: Horticulture News, February 2000, MAF Horticultural Monitoring Report, July 2001.

Kiwifruit Price Trends

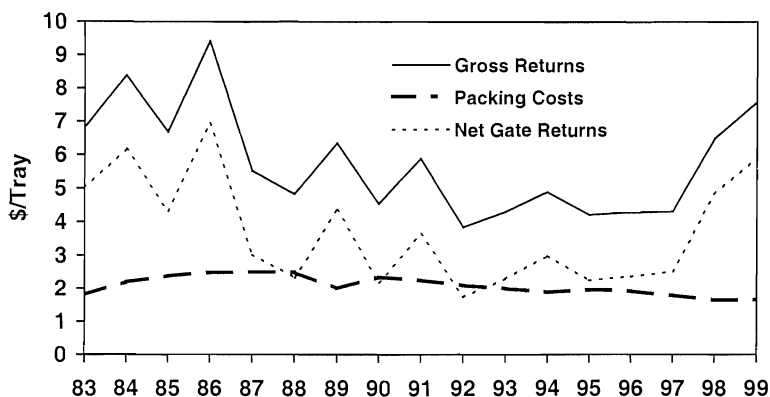
(i) 2000 Returns (\$ per tray)

Zespri TM Green Class 1	\$5.70
Zespri TM Green Organic	\$6.26
Zespri TM Gold	\$7.67

Estimated returns per tray for 2001 were \$5.77, and for 2002 forecast prices were \$5.75.

Source: Horticulture Monitoring Report -July 2001.

(ii) Export Returns 1983 to 1999



Net Gate Return is gross return to grower, per 3.5 kg tray, less packing cost and levy.

(i) Net Orchard Return Per Planted Hectare

1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
\$8,952	\$7,532	\$13,191	\$10,034	\$14,532	\$8,247	\$15,312
1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01
\$18,210	\$14,860	\$16,134	\$15,386	\$25,753	\$28,304	\$27,388

Source: ZESPRI International Ltd

1.13.9 Olives

(i) Local Market

The olive industry is still in its formative stages but increasing volumes of fruit are being harvested. An estimated 200 to 300 tonnes of olives were harvested in 2001. The majority of those were harvested, pressed for oil and marketed by individual growers, although marketing groups are becoming more common.

(ii) Export

An increasing proportion of the oil is being exported but establishing export markets will take some time.

(iii) Processing

Olives sold to processors for pressing fetch \$1 to \$2 per kilogram depending on oil content, cultivar and the quality of the fruit. Demand for fruit exceeds supply particularly while many plantings are still too young to produce any significant volume. There are an increasing number of presses being brought into New Zealand as more trees mature and come into production. New Zealand oil in 2001 retailed for between \$80 to \$140 per litre fully processed and bottled. However the higher prices will not be sustainable in the long term once more product becomes available.

Olives for pickling are to date not being on-sold to markets but are being processed by the grower and sold directly.

For further details contact:

Alastair Bridge (Executive Officer), NZ Olive Association (Inc), PO Box 488, Masterton.

1.13.10 Passionfruit

Large, choice grade passionfruit sold between \$6.00 and \$8.50 per kg in 2001.

1.13.11 Pears

(i) ENZA New Zealand (International) Indicative 2002 Market Returns

These can now no longer be provided, as the information is too sensitive in the deregulated environment.

(ii) Total Payment to Growers (Export Fancy Average Payment by variety):

(Average across all grades and sizes. Rates per 18 kg tray carton equivalent.)

Actual Average Payment per 18.0 kg TCE						
Enza Grade	2001	2000	1999	1998	1997	1996
Beurre Bosc	26.79	18.51	12.03	11.83	8.85	12.86
Doyenne Du Comice	42.74	29.69	40.01	28.02	16.66	24.34
Packham's Triumph	25.11	15.75	19.55	13.84	9.55	9.56
Taylors Gold	44.85	23.46	27.86	30.45	23.87	23.1
Others	-	-	14.20	15.38	14.84	23.16
Total Pears	-	-	24.70	19.01	13.00	17.03

1.13.12 Stone Fruit

(i) Apricots

Fresh apricots sold in local markets (Central Otago) in the 2001/02 season were giving returns to the grower of around \$2.30 to \$4.50 per kg but this was dependent on size and grade.

For the 2001/02 season Central Otago growers could expect around 73 to 74 cents per kg for process grade fruit, however costs of production were around 82 to 83 cents per kg and much fruit was left unharvested.

Growers received up to 75 cents per kg for process grade fruit in 1999/00.

Source: Ward's Horticulture

Local market prices for fresh apricots in Hawkes Bay for the 2000/01 season averaged between \$2.50 to \$3.00 per kg.

Export apricots in the 2000/01 season went as high as \$5.43 per kg.

Source: Horticulture Monitoring Report - July 2001.

(ii) Cherries

Fresh cherries gave growers in Central Otago between \$4 to \$12 per kg in the 2001/02 season on local markets. The market began high and dropped towards the end of the season.

In the 1999/00 season Central Otago growers received \$ 5 to \$12 per kg for cherries harvested (local and export markets). This compares with \$ 5 to \$10 per kg for cherries harvested in the 1998/99 season.

Source: Ward's Horticulture.

Export cherries in the 2000/01 season for top quality fruit returned \$20 per kg. However the average price was \$14.50 per kg.

Source: Horticulture Monitoring Report - July 2001.

(iii) Peaches

Average payout for Golden Queen peaches for processing in Hawkes Bay for 2000/01 was \$500 per tonne.

Source Horticulture Monitoring Report- July 2001.

Prices in 1998 and 1999 were:

	1999	1998
1st Grade	\$531 per tonne	\$520 per tonne
2nd Grade	\$356 per tonne	\$550 per tonne

Source: MAF Farm Monitoring Report North/ South Central Regions - July 1998,1999.

(iv) Plums

In the 2001/02 season growers in Central Otago received around \$1 per kg for process plums compared to 80 cents per kg for the 1999/00 harvest. This was virtually unchanged from 1998/99.

Plums sold on the local market (Central Otago) fetched \$1.00 to \$1.50 per kg in the 1999/00 season. This was largely unchanged from the 1998/99 season.

Export **greengages** in the 2001/02 season returned around \$6 per kg to growers in Central Otago.

Source: Ward's Horticulture

Prices for processing plums in Hawkes Bay for the 2000/01 season were \$800 per tonne.

1999 prices in Hawkes Bay were \$1000 per tonne for Black Doris and \$800 per tonne for Omega, both unchanged from 1998.

Source: Horticulture Monitoring Report - July 2001.

(v) Nectarines

In the Hawkes Bay growers were paid \$640 per tonne for processing grade nectarines in 2000/01. Local market prices for fresh nectarines ranged from \$2.50 to \$4.00 per kg.

Source: Horticulture Monitoring Report - July 2001.

(vi) SummerFruit Wholesale Returns 1998/99 to 2000/2001

Fruit	1998/99	1999/00	2000/01
Apricots	2.50	2.00	3.00
Cherries	6.50	4.50	N/A
Nectarines	1.90	1.30	2.80
Peaches	2.20	1.80	2.80
Plums	2.50	2.00	4.00

Source: MAF Horticultural Monitoring Report July 2001

1.13.13 Tamarillos

Local market prices for large, red tamarillos in 2001 ranged from \$1.50 to \$3.95 per kg, with yellow fruit fetching \$1.75 to \$1.85 per kg.

1.14 VEGETABLE PRODUCTION

1.14.1 Vegetable Prices - General

As with fruit, the prices paid to growers for vegetables vary markedly (sometimes by several hundred percent) both within and between years and between districts. They vary daily and are very much dependent on climate and its subsequent effects on both availability and quality of vegetables offered.

Again, as with fruit, the location of the property in relation to population centres, and the amount of produce that an individual producer provides over the course of a season also influences prices received. Whether the produce is for local consumption or for export is another major influence for a small range of vegetables.

Wholesale prices paid at auction and details of contracts for process vegetables are often confidential, especially those for organically grown crops.

1.14.2 Asparagus

(i) Fresh

Auckland wholesale market prices in 2001 averaged \$2 per kg.

Local market prices for the 2000 season in Manawatu were \$2.10 to \$3.00 per kg and in Hawkes Bay around \$3.00 per kg. This was expected to be the same for 2001. In the 1999 season prices were slightly above the process price of \$2.10 per kg. Growers received \$200 per tonne in both the 1997 and 1998 seasons.

Source: Horticulture Monitoring Report – July 2001

(ii) Process

Details of contracts are confidential but prices for 2001/02 prices were in the region of \$1.50 per kg.

The 2000 price for process asparagus in both Manawatu and Hawkes Bay was around \$2.10 per kg and expected to remain static for the 2001 season.

Source: Horticulture Monitoring Report – July 2001.

1997/98 harvest prices for Hawkes Bay (*McCain Foods (NZ) Limited*) were:

1st Grade \$1.82 per kg

2nd Grade \$1.20 per kg

(iii) Export

The average export price for 2001 was expected to be the same as for 2000. This was \$2.65 per kg in Manawatu and around \$3.50 per kg in the Hawkes Bay.

Source: MAF Horticulture Monitoring Report – July 2001

The national average price for the 2001 season was lower at around \$2 per kg.

In 1998/99 the price for export asparagus from the South Island was up to \$6.00 per kg for purple asparagus exported to Japan, compared with \$3.18 per kg for traditional varieties. South Island asparagus commanded a premium for its quality.

In the North Island the average export price was \$2.50 for 1999.

In 1997/98 the price averaged \$7.50 per kg which was the highest price realised over the last 10 years. Lower production in Australia and the exchange rate were factors.

Source: MAF Farm Monitoring Report – South Central Region and North Central Region, July 1998 and 1999

1.14.3 Beans

(i) Process

Prices paid to producers for process beans for the full range of grades for the 2001/2002 season are confidential and were not available for publication. However, growers were expecting prices to be very similar to those paid in 2001.

One Canterbury grower was expecting to receive \$340 per tonne for an “above average” crop of early green beans.

For 2001, in both Hawkes Bay and Canterbury, growers received \$300 per tonne on average, which was unchanged from 2000.

Source: New Zealand Vegetable and Potato Growers Federation.

1997/98 prices for green beans averaged \$290 per tonne in Canterbury and \$240 to \$280 per tonne in the Hawkes Bay region. Returns for yellow beans were approximately \$20 per tonne greater than for green beans.

Baby beans (under 8 mm) usually attract a good premium.

Broad Beans

No information was available for the 2001 season.

Talley's Frozen Foods paid farmers \$476 per tonne for broad beans in the 1998/99 season. This was no change from the 1997/98 price paid to growers.

(ii) Organic Beans

Premiums paid in 2000/2001 averaged 60 to 65 % above the price for standard crops and these were expected to be similar for 2001/2002. Again, these are confidential between company and producer.

1.14.4 Broccoli

Fresh

In the 2000/01 season growers in the Auckland / Waikato region received 60 to 70 cents on average per head of broccoli

Average Price (\$ per vegetable pack) – Northern North Island				
1997	1998	1999	2000	2001
\$15.75	\$10.80	\$11.60	11.50	15.00

Source: Horticulture Monitoring Report – July 2001

1.14.5 Cabbage

Fresh

Northern North Island cabbage prices in the 2000/01 season were between 60 cents and \$1.00 per head. However as the cost of producing them was around 80 cents per head, a number of growers selling at a loss.

Source: Horticulture Monitoring Report – July 2001

Wholesale prices in the Auckland region were as high as \$1.44 per head

1998/99 season prices averaged out at \$9 to \$10 per vegetable pack. Prices did vary according to quality, with prices for good quality cabbages peaking at \$14 over the October and November period in 1998. Both prices and quality dropped during the dry summer period, but started to pick up over the winter. This compares to \$10 to \$12 per vegetable pack throughout the October to December period in 1997, falling to \$9 to \$10 from January 1998 onwards.

Price Trends

Average Price (\$ per vegetable pack)				
1997	1998	1999	2000	2001
\$6.40	\$10.20	\$9.80	\$10.20	\$8.00

Source: Horticulture Monitoring Report – July 2001

1.14.6 Capsicum

(i) Fresh

The capsicum market varies according to when outdoor crops come on-stream and imported capsicums arrive on the market. Price is also affected when any export supplies miss flights and therefore arrive on the local market. Green capsicums are usually lower in price than coloured capsicums but this can vary when there are shortages of greens. Also outdoor grown capsicums are lower priced because they have thinner skins and don't keep as well as greenhouse grown ones. The following table shows a range of prices for greenhouse capsicums over 2000/2001.

	Sept 00	Oct	Nov	Dec	Jan 01	Feb	March	April
\$/kg	5.56	5.08	4.94	7.00	4.58	3.60	3.66	4.00

Early 1998/99 season prices in Invercargill were up to \$6.00 per kg for green capsicum and \$9.00 per kg for red and yellow varieties (November 1998). These prices dropped over the following months with a low in April 1999 of approximately \$1.00 per kg.

Prices in South Auckland dropped as low as \$2 per kg in June and July.

Source: Horticulture News, July 1999.

(ii) Export

2001 export prices averaged \$4.20 per kg.

Prices of \$4.50 per kg were obtained in December 1998 and January 1999 with prices later dropping to as low as \$2 per kg. Capsicums sold to Singapore and Hong Kong fetched \$3 to \$3.50 per kg.

Source: Horticulture News, July 1999.

1.14.7 Carrots

(i) Fresh

Wholesale market prices in Auckland for the 2001 season averaged 72 cents per kg.

In the 1998/99 season carrots sold on the local market for an average price of 52 cents per kg in the lower North Island. This compares to \$88 per tonne for the previous 5 years (to 1997/98).

Source: MAF Farm Monitoring Report - South Central Region, July 1999.

(ii) Process

Prices paid to producers for process carrots for the 2001/2002 season are confidential and were not available for publication. However, growers were expecting prices to be very similar to those paid in 2001.

Canterbury prices for the 2000/2001 season averaged \$90 per tonne and for 1999/2000, \$100 per tonne.

The average price for process carrots in the South Island in 1998/99 was \$90 per tonne, compared with \$65 per tonne in 1997/98 (over all grades).

Source: MAF Farm Monitoring Report South Central Region - July 1999.

This compares with one North Island company's 1998/99 price of \$180 per tonne for Washed top, grade one carrots (\$240 per tonne in 1997/98).

The price for carrots for juice was 17 cents per kg for the 1998/99 season. This compares to \$130 per tonne for Red Core and \$175 per tonne for Red Hot (lower North Island) in 1997/98.

(iii) Export

For the year ending June 2001 growers could expect to receive around \$1.25 per kg.

Source Horticulture Monitoring Report - July 2001.

(iv) Organic

Premiums of up to 100% above standard prices were received by growers in 2000/2001, with similar premiums being expected for the 2001/2002 season. These are confidential between the company and the grower.

1.14.8 Cauliflowers

Fresh

In the northern North Island prices for 2000/01 ranged from 40 cents to \$4.00 per head due to the uneven supply of produce. 1998/99 prices were around \$10 per vegetable pack. In 1997/98 prices ranged from \$ 8.00 to \$12.00 per vegetable pack throughout most of the season.

Price Trends

Average Price (\$ per vegetable pack)				
1997	1998	1999	2000	2001
\$9.10	\$11.60	\$10.00	10.60	11.20

Source: MAF Horticultural Monitoring Report - July 2001.

1.14.9 Courgettes

No 2000/01 or 1999/00 prices were available, however early season produce in Mid Canterbury was fetching up to \$5.00 per kg in October 1998, dropping to \$2.00 per kg in November 1999. This compares to \$6.00 per kg in October 1998, dropping to \$1.00 to \$1.50 per kg in January 1999 in some other regions. 1997/98 prices were \$3.70 to \$4.50 per kg in November 1997, dropping to \$2.50 to \$3.50 in December and \$1.90 per kg in early January 1998.

1.14.10 Kabocha (Squash)

(i) Fresh

Wholesale market prices in Auckland for 2001 averaged 52 cents per kg.

(ii) Process

No information was available for 2001. An insignificant amount of squash was grown in Canterbury in 1999/00, however farmers were offered 50 cents per kg for squash grown for processing in 1998/99. This was no change from the 1997/98 price (*Talley's Frozen Foods*).

(iii) Export

Early January 2001 prices in the northern North Island reached a high of \$2.25/kg. However by late January these had fallen back to about \$1 per kg. Contract squash prices for the rest of the 2001 season ranged from 35 to 50 cents per kg. For the lower North Island early season prices were around \$1.80 per kg but dropped to 65cents per kg in the middle of the season. Prices dropped to below 20 cents per kg later in the season (lower than production costs). Contract prices for the lower North Island were around 50 to 60 cents/kg.

Source: Horticulture Monitoring Report July 2001

For the 1999/00 season kabocha contracts ranged from \$0.30 to \$1.00 per kilogram, compared with \$0.15 to \$0.70 per kilogram for the 1998/99 season and \$0.15 to \$0.45 per kilogram for the 1997/98 season, unchanged from the previous two seasons.

Source: Growex Limited

Gisborne prices for 1998/99 varied considerably from 25 to 30 cents per kg for the bulk of the main season's harvest, up to 80 cents per kg for small quantities in the early part of the season.

In comparison, early 1997/98 seasons prices ranged from 70 to 90 cents per kg, while main season prices were 40 to 60 cents per kg and later in the season prices dropped to 30 to 40 cents per kg. These prices were very much better than the 1996/97 prices of 50 to 80 cents per kg in the early season, 30 to 50 cents during the main season and 20 to 30 cents in the late season.

Southern North Island prices in 1997/98 averaged 45 cents per kg. Early season price was 35 cents per kg but this rose to up to 60 cents in the later part of the season.

Price Trends

Average Price	1995	1996	1997	1998	1999
Early	\$1.20	\$0.25	\$0.65	\$0.75	\$0.80
Late	\$0.45	\$0.40	\$0.35	\$0.45	\$0.30

Source: MAF Farm Monitoring Report - North and North Central Region, July 1999.

Uncontracted kabocha is sold on the spot market and is very dependent on season and availability of the product. In a poor growing season, with lower yields, prices are higher.

1.14.11 Kumara

Wholesale market prices for fresh kumara on the Auckland market for 2001 averaged \$1.96 per kg.

1.14.12 Lettuce

Northern North Island prices were around 80 cents to \$1.00 per head in 2001.

Mid-Canterbury growers received \$1.50 to \$2.20 each for tunnel-house grown lettuce in winter (July 1999). Outside grown produce fetched \$1.20 per head during November and dropped to 60 to 70 cents December 1999 period. This compares with \$1.50 to \$2.00 per head received for tunnel-house grown lettuces in winter (July 1998). Outside grown produce fetched 60 to 90 cents each during the November to December 1998 period.

1998/99 lettuce quality was particularly low in the North region due to weather

conditions. As a result prices fell. 1997/98 prices for northern North Island growers peaked in August/September 1997 at \$18.50 to \$20 per vegetable pack. During the rest of the season prices remained in the \$6.00 to \$9.00 range, going as high as \$15 in April 1998.

Price Trends

Average Price (\$ per vegetable pack)				
1997	1998	1999	2000	2001
\$9.60	\$10.00	\$9.40	10.00	8.00

Source Horticulture Monitoring Report – July 2001.

1.14.13 Mushrooms

Wholesale market prices for fresh mushrooms on the Auckland market for 2001 averaged \$4.00 per kg.

1.14.14 Onions

(i) Fresh

Wholesale market prices for fresh onions on the Auckland market for 2001 averaged 76 cents per kg.

Price Trends

Average Price (\$ per 20 kg bag)					
	1997	1998	1999	2000	2001
Small	-	\$5 - \$8	\$3	-	-
Medium	\$3 - \$6	\$13 - \$15	\$11 - \$12	\$2 - \$4	\$7 - \$8
Jumbo	\$5 - \$6	\$14 - \$17	\$12 - \$14	\$3 - \$5	\$10 - \$11

Source: Horticulture Monitoring Report - July 2001.

Returns to growers for the 1998/99 season in the northern North Island were \$2 to \$3 per 20 kg bag, despite early season's prices of up to \$8.00 per 20 kg bag, rising to \$10 and as high as \$15 per bag for large grade onions.

Canterbury prices were approximately \$300 per tonne in 1998/99, a decrease from the previous season, when prices were received by the grower of up to \$750 per tonne. (Dependent on sale time, size and quality 1998/99 prices ranged from \$200 to \$450 per tonne.) Average prices in 1997/98 were \$150 to \$250 per tonne.

Bulk onions of most size grades in Manawatu for the 2001 season were:

\$400 tonne January to March
up to \$650 tonne July to October
up to \$800 tonne November to December

Source: Morgan Laurensen Ltd

(ii) Export

Onion growers in the South Island received, from one South Island company, \$300 to \$600 per tonne in 2001 compared to \$150 to \$250 per tonne in 2000.

Nationally, fresh export prices averaged 30 cents per kg (\$300 per tonne) in 2001.

1.14.15 Peas

(i) Process

Prices paid to producers for process peas for the full range of grades for the 2001/2002 season are confidential and were not available for publication. However, growers were expecting prices to be very similar to those paid in 2001 (around \$300 per tonne).

One Canterbury grower was expecting to receive \$275 per tonne for a "good" crop of process peas.

Prices for the 2000/01 season were around \$260 to \$280 per tonne in Central Hawkes Bay.

Source: Horticulture Monitoring Report – July 2001

Canterbury growers received on average \$300 per tonne in the 2000/2001 season

The following prices are for mid-grade peas in the 1999/00 season (prices for other grades were unavailable).

Grade	4	5	6	7
\$ per tonne	257.60	246.90	231.50	214.40

South Island prices averaged \$300 in 1998/99, which was the same in 1997/98.

Source: MAF Farm Monitoring Report - South Central Region – July 1999

Lower North Island prices averaged \$260 to \$280 per tonne in 1998/99, which was the same in 1997/98.

Source: MAF Farm Monitoring Report - North Central Region, July 1999.

(ii) Organic

Premiums of between 50 and 55% above standard prices were received by growers in 2000/2001, with similar premiums being expected for the 2001/2002 season. As with other crops, these prices are confidential between the company and the grower.

Lower North Island returns for organically grown peas for processing averaged \$500 per tonne in 1997/98.

Source: MAF Farm Monitoring Report - North Central Region, July 1998

1.14.16 Potatoes

(i) Main Crop Potatoes

Northern North Island

In the season 2000/01 prices lifted to an average of \$250 to \$300 per tonne for both fresh and process potatoes. This compares with up to \$10 to \$12 per 20 kg bag in 1998/99 and during October and November 1997 \$4.00 to \$5.00 per 20 kg bag, increasing to \$6.00 to \$6.50 from November through until March. Winter prices for 1998 remained stable at \$7.00 to \$7.50 per 20 kg bag.

Price Trends

Average Price for Main Crop Potatoes (\$ per tonne)				
1997	1998	1999	2000	2001
\$255	\$350	\$390	\$100	\$250 to \$300

Source: Horticulture Monitoring Report - July 2001

Manawatu

2001 \$275 to \$400 per tonne brushing potatoes

2001 \$475 to 600 per tonne washing potatoes

2000 \$160 to \$300 per tonne

1999 \$225 to \$350 per tonne

1998 \$225 to \$300 per tonne.

1997 \$250 to 350 per tonne.

Prices on the local market were \$12 per 20 kg bag between January and March, dropping to \$10 from April to June and \$7 to \$10 from July to November in the lower North Island in 2001. This compares to the returns of between \$8.50 and \$12.00 per 20 kg bag that were realised for local market potatoes in the lower North Island in the 1998/99 season.

Source: MAF Farm Monitoring Report - North Central Region, July 1999, Morgan Laurensen Ltd.(2001)

Canterbury

Local market prices for potatoes from one South Island company were \$500 to \$700 per tonne in 2001 with washing and pre-pack varieties receiving the higher prices. In 2000 growers received on average \$200 to \$300 per tonne.

December 1998 prices were \$800 to \$1000 per tonne. The price was affected by lack of local supply with a large percentage being brought in from Pukekohe. January 1999 prices were approximately \$500 per tonne, reflecting an increase in local supply.

In 1997/98, due to the dry season, returns for potatoes in Canterbury averaged \$165 per tonne.

Source: MAF Farm Monitoring Report - South Central Region, July 1998.

Southland

Main crop potatoes for the 2001/02 season in Southland were expected to sell for \$400 to \$500 per tonne. This compares to the 1999/00 season when prices were \$300 to \$400 per tonne. In the 1998/99 season prices were \$300 to \$500 per tonne, unchanged from the previous two seasons.

(ii) Process

Northern North Island average price for process potatoes were as follows (\$ per tonne):

1997	1998	1999	2000	2001
\$320	\$310	\$330	\$250	\$250 to \$300

Source: Horticulture Monitoring Report - July 2001

One Canterbury processing plant paid \$200 per tonne for new potatoes and \$175 per tonne for main crop potatoes in the 1999/00 season. This price was subject to variation depending on supply.

Talley's Frozen Foods contract price for the 1998/99 harvest was \$170. The 1997/98 price was \$180 per tonne. Prices for 2001/02 were unavailable due to confidentiality.

McCain Foods (NZ) Ltd contract price for the 1998/99 harvest was \$180 per tonne for processing. In 1997/98 the price was \$175 per tonne compared with \$180 per tonne for both the 1996/97 and 1995/96 harvests. Prices for 2001/02 were unavailable due to confidentiality of contracts..

South Island average price for process potatoes in the 1998/99 season was \$185 (unchanged from the 1997/98 season).

In the lower North Island contract price for process potatoes averaged \$185 in 1998/99, unchanged from the 1997/98 season.

(iii) Export

The outlook for 2002 for export potatoes is positive with steady inquiries from Europe and Asia. An excellent growing season, with high yields expected, could have a softening effect on potato prices.

Overall prices for fresh export crops in 2001 averaged 25 cents per kg.

Some potato crops in 2001 in the South Island were only average due to tuber moths and stem end rots. From one South Island company, growers received \$250 to \$400 per tonne.

South Island 2000 season export prices were very poor due to average quality of produce, over-supply and poor demand. Growers received around \$100 to \$200 per tonne.

In the Lower North Island prices from *Morgan Laurenson Ltd* for the 1999 harvest were approximately \$150 to \$300 per tonne. These were spot prices for potatoes destined for Asian markets.

1.14.17 Pumpkins

Fresh

No prices for 2001/2002 were available. Mid-February 1999 price for fresh produce (ex-Nelson) was approximately 80 cents per kg. Canterbury growers received 50 cents per kg in March 1999, 41 cents per kg in April, and 30 cents per kg in May and June. This compares to a range of 40 to 50 cents received during the March to May period in 1998.

1.14.18 Silverbeet

Fresh

No prices for 2001 or 2002 were available. May to August 1999 prices in South Canterbury were \$7.00 to \$8.00 per crate, up to \$15.00 per crate in September and dropped to \$8.00 to \$10.00 in November

Early season prices for the 1998/99 season in South Canterbury were up to \$10 per crate (early September 1998) and approximately \$8.00 per crate thereafter.

1.14.19 Sweet Corn

(i) Process

Southern North Island prices in 2000/01 were \$122 per tonne for both Jubilee and Supersweet varieties, with some growers receiving up to \$140 per tonne. Growers were expecting to receive similar prices for 2001/2002.

1998/99 prices were \$128 per tonne for Jubilee and \$150 per tonne for Supersweet. This compares to \$113 per tonne for Jubilee and \$123 per tonne for Supersweet in 1997/98.

Source: MAF Farm Monitoring Report – North Central Region – July 1999.

Marlborough growers received \$145 per tonne in 2001 compared with \$135 in 2000.

Source: New Zealand Vegetable and Potato Growers Federation

The average price paid in Canterbury for process sweet corn in 2000/01 was \$135 per tonne compared with \$150 per tonne in 1998/99.

Source: MAF Horticultural Monitoring Report – July 2001.

In 1998/99 a single price of \$148 per tonne was paid for all grades of sweetcorn by *McCains Foods (NZ) Limited*. Price included harvesting and delivery to the factory. No prices for the 2001/02 were available due to sensitivity.

1997/98 Prices for Canterbury

A grade	\$126.00
B grade	\$119.00
C grade	\$108.00
Supersweet	\$129.00

Source: McCain Foods (NZ) Limited

(ii) Organic

The 2000/01 price for organically grown sweetcorn was \$200 per tonne with similar prices being expected by growers for the 2001/2002 season.

1998/99 prices for organically grown sweetcorn for processing in the southern North Island averaged \$188 per tonne, unchanged from 1997/98.

Source: MAF Farm Monitoring Report – North Central Region - July 1999.

1.14.20 Tomatoes

(i) Fresh

Auckland wholesale market prices for 2001 averaged \$2.90 per kg, with fresh export prices averaging a little less, at \$2.70 per kg

(ii) Process

The 2000/01 season contract price in the lower North Island remained the same at \$97 per tonne, unchanged from 1999/00.

Source: Horticulture Monitoring Report – July 2001.

1.14.21 Zucchini

Process

2001/02 and 1999/2000 prices were unavailable. However, Canterbury farmers were paid 50 cents per kg in 1998/99, unchanged from 1997/98.

Source: Talley's Frozen Foods.

1.15 CUT FLOWERS

1.15.1 Local Market

(i) 2001 Auckland auction prices

(Figures are \$ per 5 or 10 as stated)

	Jan	Feb	Mar	April	May	June
Carnation spray (per 10)	1.13 – 2.91	1.48 – 2.70	1.20 – 3.31	3.03 – 4.27	2.38 – 4.48	5.24 – 6.80
Standard (per 10)	1.10 – 2.56	1.25 – 1.63	1.55 – 2.45	2.57 – 4.50	2.40 – 5.69	3.73 – 5.33
Chrysanth. (per 5)	1.43 – 5.99	3.29 – 4.72	1.73 – 4.46	1.83 – 4.92	2.10 – 5.29	3.80 – 6.20
Rose (per 10)	1.43 – 7.24	1.18 – 20.66	2.62 – 11.06	2.16 – 10.26	2.83 – 10.24	3.83 – 12.07
Agapanthus (per 5)	1.75	1.21	1.64	1.07	1.69	1.20
Ageratum (per 5)	1.31	-	1.66	1.83	2.15	2.54
Alstromeria (per 5)	1.43	1.71	1.55	1.90	2.97	2.91
Anenome (per 10)	-	-	1.90	1.80	1.90	2.08
Daffodil (per 10)	-	-	-	-	1.42 – 2.62	1.81 – 3.57
Delphinium (per 5)	1.56	1.00 – 1.89	1.98	1.46 – 2.66	2.64	4.25
Freesia (per 10)	-	-	-	-	3.22	4.05 – 4.44
Gerbera (per 5)	1.86 – 3.80	2.65 – 6.20	2.07 – 4.38	2.54 – 4.81	2.25 – 4.78	3.50 – 6.73
Gypsophila (per 200gm)	2.05 – 3.27	3.71	3.53	5.84	7.41	7.36
Iris (per 5)	0.95 – 1.30	2.12 – 2.74	0.71 – 2.82	2.24 – 2.72	1.94 – 2.60	2.14 – 2.73
Lily (per 5)	1.12 – 4.54	1.96 – 6.59	1.65 – 5.21	2.36 – 6.72	1.63 – 7.49	2.93 – 6.26
Lisianthus (per 5)	2.86	2.26 – 4.39	2.42 – 3.99	4.34 – 6.27	3.23 – 5.80	2.50 – 6.45
Paeony (per 5)	4.65	-	-	-	-	-
Ranuncula (per 5)	-	-	-	-	1.30	-
Snap Dragon (per 5)	1.28	1.41	1.32 – 1.57	1.58 – 2.18	2.45	4.01
Statice (per 5)	1.08 – 1.63	1.05 – 3.88	1.13 – 2.52	1.65 – 4.40	4.65 – 5.36	4.35 – 7.57
Stock Double (per 5)	1.78 – 3.97	-	-	3.52 – 4.56	1.85 – 6.35	3.79 – 4.71
Tulip (per 5)	-	2.48	1.30 – 2.49	2.29	3.15	3.10

	July	August	Sept	Oct	Nov	Dec
Carnation spray (per 10)	5.36	5.82	4.05	2.72	1.98	1.49
Standard (per 10)	6.33	6.26	4.11	2.31	1.52	1.37
Chrysanth. (per 5)	3.80 – 5.54	3.08 – 5.20	4.10	2.20 – 3.24	1.69 – 3.73	1.80 – 4.10
Rose (per 10)	3.22 – 12.61	3.77 – 14.44	3.32 – 14.55	2.41 – 12.38	1.18 – 10.28	1.29 – 9.32
Agapanthus (per 5)	-	-	-	-	1.04 – 1.14	0.67 – 0.83
Ageratum (per 5)	2.75	2.60	2.14	-	-	-
Alstromeria (per 5)	3.42	3.84	2.60	-	1.11	1.13
Anenome (per 10)	1.90 – 2.92	2.19 – 3.18	1.99	-	-	-
Daffodil (per 10)	0.97 – 2.52	1.16 – 1.82	1.04 – 1.37	1.11 – 1.70	-	-

	July	August	Sept	Oct	Nov	Dec
Delphinium (per 5)	3.85	4.46	3.80	2.06 – 2.36	1.37	2.31-2.45
Freesia (per 10)	2.99 – 3.29	2.53-3.03	1.56 – 2.50	1.09 – 1.51	-	-
Gerbera (per 5)	3.55 – 7.73	3.72-4.76	1.82 – 2.85	1.38 – 4.30	1.38 – 2.87	1.49 – 2.84
Gypsophilia (200gm)	1.03 – 9.68	10.95	8.64 –10.62	7.06 – 7.74	3.79 – 4.40	1.98 – 2.63
Iris (per 5)	1.74 – 3.80	3.41 – 3.83	0.81 – 3.62	0.77 – 1.60	0.77-1.51	0.66 – 2.05
Lily (per 3 or 5)	2.50 – 5.27	2.93 – 6.31	2.00 – 5.36	1.34 – 5.33	1.50 – 4.46	1.22 – 3.06
Lisianthus (per 5)	3.95 – 5.56	3.85 – 6.04	2.64 – 5.80	2.10 – 5.21	4.97 – 6.33	6.34
Paeony (per 5)	-	-	-	-	2.34 – 7.79	2.78– 11.90
Ranuncula (per 5)	2.05	3.09	1.30 – 2.20	1.06-2.06	1.05-1.93	-
Snap Dragon (per 5)	3.40	4.29	1.21 – 2.63	1.03 – 1.50	1.25	1.18
Statice (per 5)	2.26 – 8.79	4.75 – 7.10	1.95 – 4.05	1.77-3.08	1.54-2.65	0.75 – 3.20
Stock Double (per 5)	2.70 – 4.62	4.48	1.91 – 3.93	1.23 – 2.46	2.16	1.82 – 4.20
Tulip (per 5)	2.32	2.28	1.97	1.34	1.37	0.99

Source: Horticulture News, 2001 Issues.

(ii) 2000 Auction Prices - Auckland

	Jan	Feb	Mar	April	May	June
Carnation spray (per 10)	1.65 – 5.60	1.62-2.75	2.13	2.02 – 2.70	4.00 – 5.80	3.19 – 4.08
Standard (per 10)	1.45 – 3.88	1.72 – 2.63	2.15 – 2.56	2.53 – 3.72	3.88 – 6.91	3.32 – 4.10
Chrysanth. (per 5)	2.96 – 6.90	2.47 – 6.03	3.12 – 6.23	3.50- 5.80	2.61 – 5.29	2.90 – 5.17
Rose (per 10)	1.03 – 10.24	2.49 – 17.80	1.62 – 11.50	1.94 -12.12	2.60 – 13.68	2.02 – 10.87
Agapanthus (per 5)	-	1.57 – 1.69	-	-	-	-
Ageratum (per 5)	-	-	1.84	1.25 – 1.75	-	1.90
Alstromeria (per 5)	1.91 – 2.55	1.32 – 1.88	2.06 – 2.54	1.85 – 2.36	2.20 - 3.90	2.44 – 3.53
Anemone (per 10)	-	-	2.65	1.53 – 2.32	-	-
Daffodil (per 10)	-	-	-	-	1.27 – 1.97	1.26 – 2.30
Delphinium (per 5)	2.38 – 3.48	2.12 - 2.84	2.06 – 3.45	2.04 – 3.78	2.09 – 6.50	1.60 – 4.90
Freesia (per 5)	-	-	3.59	2.85	-	2.60
Gerbera (per 5)	1.76 – 5.65	2.51 – 6.33	1.80 – 5.53	4.67 – 6.09	3.17 – 7.76	2.67 – 6.84
Gypsophilia (per 5)	3.32	-	-	4.27	8.18	8.20
Iris (per 5)	0.86 – 2.36	3.20 – 3.64	1.77 – 1.92	1.21 – 1.80	1.70 – 3.00	1.20 – 2.60
Lily (per 5)	3.50 – 5.15	4.12 – 5.80	2.44 – 6.69	2.53 – 5.50	3.33 – 6.68	2.21 – 5.40
Lisianthus (per 5)	2.98 – 3.56	2.93 – 5.21	3.43 – 5.04	2.95 – 4.79	3.40 – 7.08	3.89 – 5.63
Paeony (per 5)	2.32 – 3.32	-	-	-	-	-
Ranuncula (per 5)	-	-	-	-	-	1.83 – 2.83
Snap Dragon (per 5)	1.28 – 1.57	1.18 – 2.07	1.47 – 2.41	1.57 – 2.32	3.10 – 3.48	2.00 – 3.50
Statice (per 5)	1.62 – 2.10	2.15 – 3.44	2.21 – 2.32	1.75 – 3.97	7.29 – 7.80	5.33 – 6.62
Stock Double (per 5)	-	-	-	4.80 – 5.72	3.07 – 5.44	3.25 – 4.43
Tulip (per 5)	-	-	1.75 – 1.97	1.36 – 2.21	2.60	1.41 – 3.00

	July	August	Sept	Oct	Nov	Dec
Carnation spray (per 10)	3.86 – 4.96	3.40 – 5.38	4.38 – 5.40	3.87 – 4.39	2.74 – 2.81	1.54 – 3.07
Standard (per 10)	4.10 – 4.98	3.10 – 5.00	4.13 – 5.59	3.61 – 5.44	2.70 – 3.53	1.68 – 3.00
Chrysanth. (per 5)	3.41 – 6.11	3.20 – 6.38	3.23 – 6.56	1.70 – 6.60	2.50 – 5.76	1.71 – 4.76
Rose (per 10)	2.90 – 12.25	3.87-15.16	2.20 – 14.24	1.60-13.74	2.75 -11.69	3.29 – 10.56
Agapanthus (per 5)	2.20	1.60	-	1.71	1.14	0.96 – 1.31
Ageratum (per 5)	2.21	-	1.89	1.58	1.04	1.01
Alstromeria (per 5)	2.71 – 3.90	3.44 – 3.83	2.48 – 3.25	2.60- 3.05	0.84 – 1.93	1.06 – 2.15
Anenome (per 10)	1.98 – 2.65	1.96 – 2.58	1.69 – 2.00	1.40 – 1.99	1.84	-
Daffodil (per 10)	0.50 – 1.45	0.96 – 1.94	1.12 – 1.78	1.25 – 1.62	-	-
Delphinium (per 5)	3.75	4.43	2.23 – 4.17	2.74 – 5.50	2.17 – 3.91	1.36 – 3.65
Freesia (per 5)	2.53 – 3.45	2.64 – 3.75	1.76 – 2.65	1.81 – 2.31	1.40 – 2.11	-
Gerbera (per 5)	2.70 – 7.92	2.50 – 7.52	1.87 – 7.06	1.99 – 6.29	1.42 – 4.57	2.36 – 4.00
Gypsophilia (per 5)	-	11.84	10.30	10.99	5.10 – 5.45	2.73
Iris (per 5)	1.81 – 2.83	1.65 – 2.00	1.15 – 2.10	1.22 – 2.08	1.64 – 2.30	0.95 – 2.60
Lily (per 5)	3.10- 8.77	2.70 – 6.91	2.58 – 7.68	1.95 – 7.27	2.37 – 6.79	1.69 – 6.17
Lisianthus	4.73 – 6.11	5.48 – 6.88	4.25 – 6.74	4.39 – 6.74	-	4.40 – 8.27
Paony	-	-	-	3.26 – 4.07	2.19 – 11.07	3.02 – 10.05
Ranuncula (per 5)	-	-	1.32 – 2.84	1.41 – 2.47	-	-
Snap Dragon (per 5)	2.04 – 2.58	2.17 – 2.61	1.80 – 2.40	1.70 – 2.47	1.40 – 1.61	1.04 – 2.63
Statice (per 5)	6.44	5.58 – 6.04	-	1.56 – 5.30	1.67 – 3.76	1.08 – 2.75
Stock Double (per 5)	2.64 – 4.77	2.45 – 3.85	1.96 – 2.53	1.52 – 2.72	1.76 – 2.64	2.00 – 3.38
Tulip (per 5)	1.90 – 3.14	1.80 – 4.20	1.40 – 3.68	1.54 – 2.83	1.21 – 1.78	1.57

Source: Horticulture News, 2000 Issues.

(iii) 1999 Auction Prices - Auckland

(Figures are \$ per 5 or 10 as stated)

	Jan	Feb	Mar	April	May	June
Carnation spray (per 10)	1.62-2.75	1.63-4.44	1.44-2.35	2.30-3.83	3.01-4.11	3.93-5.26
Standard (per 10)	1.76-2.48	1.64-4.84	1.04-1.80	2.32-3.53	3.20-5.49	5.28-6.54
Chrysanth. (per 5)	2.35-4.78	3.03-5.57	2.73-6.32	3.48-8.50	2.97-5.33	3.44-6.60
Rose (per 10)	1.34-10.08	4.58-9.53	1.04-9.05	4.10-12.55	2.00-8.23	2.26-11.03
Agapanthus (per 5)	-	-	-	1.88	-	-
Ageratum (per 5)	1.31	-	2.56	1.86	2.19	-
Alstromeria (per 5)	3.08-3.24	2.69	1.70-2.34	2.55-5.02	2.48-3.31	3.62-4.89
Anenome (per 10)	-	-	-	1.65-2.14	1.45	-
Daffodil (per 10)	-	-	-	-	-	1.09-3.80
Delphinium (per 5)	1.15-5.30	1.71-2.36	1.36-2.44	2.27-4.10	2.90-3.45	3.38-4.41
Freesia (per 10)	-	-	-	-	-	4.00-5.50
Gerbera (per 5)	3.28-4.78	2.85-5.90	1.74-4.40	3.50-5.30	2.96-5.27	2.48-6.14
Gypsophilia (per 5)	2.73	-	1.59	5.15-5.17	4.26-4.52	10.77

	Jan	Feb	Mar	April	May	June
Iris (per bunch)	1.46-2.52	-	1.26	2.85-3.27	2.15-2.86	2.30-2.87
Lily (per 5)	3.07-5.48	3.14-7.51	1.20-5.20	3.55-5.73	3.06-4.84	3.30-5.40
Ranacula (per 5)	-	-	-	-	-	-
Snap Dragon (per 5)	1.56-2.39	-	-	1.46-1.90	1.40-1.88	2.68-3.42
Statice (per 5)	1.17-2.06	1.23-1.71	1.00-1.67	3.90-4.55	3.23-4.10	2.81-8.13
Stock Double (per 5)	1.79-3.10	2.50-4.15	-	2.27-3.23	2.27-2.99	3.80-5.78
Tulip (per 5)	-	-	-	1.86-2.96	2.28-2.98	3.42-3.60

	July	August	Sept	Oct	Nov	Dec
Carnation spray (per 10)	4.28-5.10	2.47-4.61	5.43-8.20	2.67-5.19	1.85-2.65	1.61-3.05
Standard (per 10)	3.10-3.83	3.00-5.00	7.30-8.35	4.73-5.82	2.22-2.81	2.76-4.28
Chrysanth. (per 5)	3.10-5.20	3.51-7.80	5.30-9.40	3.32-5.22	1.90-5.04	3.19-6.13
Rose (per 10)	3.32-10.37	3.22-20.00	2.70-13.80	1.99-14.40	2.65-10.88	1.53-10.57
Agapanthus (per 5)	-	2.28	-	1.54	1.60	1.41-1.78
Ageratum (per 5)	-	2.58	-	2.20	1.39-1.42	1.65
Alstromeria (per 5)	4.60-5.25	3.45-4.04	3.34-4.87	2.60-4.15	1.42-2.84	1.34-2.84
Anemone (per 10)	2.10-3.40	1.99-2.23	-	1.17-1.40	-	-
Daffodil (per 10)	0.79-2.89	1.34-2.50	1.31-1.87	1.20-2.04	-	-
Delphinium (per 5)	2.89-4.39	4.16-5.17	4.50	5.20	3.23-3.42	2.90-3.92
Freesia (per 10)	-	2.50-4.30	3.50-4.80	1.65-2.33	1.23-2.53	-
Gerbera (per 5)	3.49-6.61	3.74-6.00	3.40-7.24	2.65-6.87	2.17-4.80	2.88-5.27
Gypsophila (per 5)	9.68-10.53	9.00-9.03	7.50-8.56	8.61	4.38	3.12
Iris (per bunch)	2.40-3.30	1.74-1.91	1.89-3.89	1.41-2.47	1.19-1.53	1.12-1.65
Lily (per 5)	3.10-6.50	4.07-5.73	3.00-13.48	2.49-4.80	2.48-4.49	2.73-6.13
Ranacula (per 5)	-	-	-	-	-	-
Snap Dragon (per 5)	2.16-3.17	1.95-2.59	3.10-4.03	1.75-2.92	1.33-1.90	1.30-1.94
Statice (per 5)	6.31-9.36	8.26-8.47	-	-	1.90-2.58	3.20-4.70
Stock Double (per 5)	3.04-4.69	2.27-3.36	3.35-4.45	1.65-2.85	1.22-1.79	2.32-3.56
Tulip (per 5)	2.20-2.90	2.13-6.85	2.05-3.22	1.15-3.04	1.30-3.50	0.50-4.25

Source: Horticulture News, 1999 Issues.

1.15.2 Export Prices

(i) Callas (*Zantedeschias*)

Prices for 2001/2002 were unavailable.

Growers selling on the export market in the 1998/99 season received prices ranging between \$1.20 and \$2.40 depending on variety, time of year and grade.

Source: MAF Farm Monitoring Report – North Region, July 1999.

(ii) Orchids

2001 prices for orchid were not available.

North Island orchid growers averaged \$47 per box for export orchids in 1998/99, an increase of 5% over the previous season's price.

Source: MAF Farm Monitoring Report – North Region, July 1999.

(iii) Paeonies

Export flower prices were higher in the 2000/01 season than previous seasons, with prices up to \$5.80 per stem.

Source: Horticulture Monitoring Report – July 2001

(iv) Sandersonias

Prices for 2001 were not available.

Prices for flowers increased in the 1998/99 season to 1.3 cents per stem cm, a substantial increase over prices in previous seasons (1 cent per stem cm).

Source: MAF Farm Monitoring Report – North Region, July 1999.

1.16 APICULTURAL PRODUCTION

1.16.1 Honey

Prices for 1999/2000 and 2000/2001

Colour/grade	\$ /kg (fob)	
	1999/2000	2000/01
Light (clover type)	\$2.05 to \$2.30	\$2.32 to \$2.80
Light amber	\$1.95 to \$2.12	\$1.80 to \$2.40
Dark	\$1.50 to \$2.50	\$1.60 to \$2.30

Source: Horticulture Monitoring Report - July 2001

Manuka Honey

Prices of manuka honey were very high in the 2000/2001 season, ranging from \$5 up as high as \$24 per kg, compared with \$3.50 to \$4.20 in the previous season. This is because of both short supply and very high demand for those types which are used for medicinal purposes, particularly wound dressings.

Payment (at \$1.00 per kg per point) is made according to antibacterial activity as determined by an accredited laboratory.

Source: Horticulture Monitoring Report - July 2001

1.16.2 Beeswax

Prices for 1999/2000 and 2000/2001

	\$ /kg fob	
	1999/2000	2000/01
Light	\$5.50	\$5.60
Dark	\$4.50	\$4.70

Source: Horticulture Monitoring Report - July 2001

1.16.3 Pollen

Prices for 1999/2000 and 2000/2001

	\$ /kg fob	
	1999/2000	2000/01
Not dried or cleaned	\$9.00 to \$12.00	\$9.00 to \$13.00
Cleaned and dried	\$16.00 to \$22.00	\$15.00 to \$22.00

Source: Horticulture Monitoring Report - July 2001

1.16.4 Propolis

Suppliers were receiving \$50 to \$75 per kg for the 2000/2001 season. However, after extraction to purify the raw product, beekeepers were receiving \$120 to \$140 per kg.

Source: Horticulture Monitoring Report - July 2001

1.16.5 Pollination

Beekeepers received the following returns from hire of their hives to orchardists for pollination of fruit crops.

	\$ per hive	
	1999/2000	2000/2001
Pipfruit, stonefruit, berries	45.00 to 50.00	45.00 to 50.00
Kiwifruit:		
Hawkes Bay	70.00 to 80.00	70.00 to 80.00
Taranaki	60.00 to 70.00	65.00 to 70.00
Auckland	50.00 to 75.00	60.00 to 80.00
Bay of Plenty	50.00 to 90.00	70.00 to 130.00

Source: Horticulture Monitoring Report - July 2001

In Canterbury, hives placed in vegetable crops received \$80 per hive for the 2001/02 season.

Hives placed in clover crops, or other crops which produce quality honey, are not usually charged for.

1.16.6 Live Bees

Nucleus hives (four frames with bees, a queen bee, brood and honey) sold for \$35 to \$50 each in 2000/2001.

Queen bee prices ranged from \$12 to \$18 each on the local market and \$16 to \$30 each on the export market.

Bulk bees can be sold for export in 1 to 1.5 kg packages (including a queen bee and food supply). These were selling for \$11 to \$14 per kg in 2000/2001.

Source: Horticulture Monitoring Report - July 2001

1.17 LOGS

1.17.1 Indicative Log Prices

The prices and rates shown are those current at 31 January 2002 and the five previous quarters. They are guidelines only, being subject to a wide range of factors including location and size of woodlot, access and internal roading, log quality and changing market conditions.

Log prices are for Radiata Pine unless shown otherwise.

(i) Export Log Prices (*per quarter*)(NZ\$ *per JAS m³ f.o.b.*)

Grade	Dec 2000 \$/tonne	Mar 2001 \$/tonne	Jun 2001 \$/tonne	Sep 2001 \$/tonne	Dec 2001 \$/tonne
Pruned	192 - 237	189 - 220	190 - 217	144 - 230	190 - 234
Unpruned A - Japan	122 - 141	117 - 133	100 - 127	100 - 136	94 - 115
Unpruned K - Korea	65 - 105	70 - 97	64 - 78	84 - 90	87 - 100
Unpruned J - Japan	89 - 122	89 - 105	78 - 102	85 - 94	89 - 98
Pulp - Japan	62 - 80	62 - 79	53 - 69	56 - 65	65 - 70

Source: MAF www.maf.govt.nz

(ii) Domestic Log Prices (*per quarter*)(NZ\$ *per tonne delivered at mill*)

Grade	Dec 2000 \$/tonne	Mar 2001 \$/tonne	Jun 2001 \$/tonne	Sep 2001 \$/tonne	Dec 2001 \$/tonne
P1	150 - 175	151 - 175	162 - 185	150 - 175	164 - 190
P2	105 - 160	103 - 165	101 - 143	94 - 165	106 - 160
S1	100 - 111	90 - 107	83 - 99	83 - 103	77 - 101
S2	83 - 103	80 - 102	70 - 100	70 - 93	69 - 92
L1 and L2	58 - 85	54 - 85	52 - 70	55 - 60	62 - 80
S3 and L3	52 - 65	57 - 69	52 - 80	N/A	50 - 78
Pulp	34 - 63	35 - 63	36 - 57	32 - 42	35 - 51

These log prices (both domestic and export) are indicative only and may not correspond to actual prices paid in market transactions. They have been obtained from a variety of sources and elements of subjective judgement have been incorporated into them. The prices are subject to changes when further data become available.

Source: MAF www.maf.govt.nz

1.17.2 Forestry Forecasts

(i) Logs and Lumber Situation and Outlook

Export prices \$/m ³						
March Year	2000	2001p	2002f	2003z	2004z	2005z
Logs	99	119	120	110	110	115
Lumber	486	508	525	485	470	470

(ii) Wood Pulp, Paper Products and Panels Situation and Outlook

Export Prices							
March Year	Units	2000	2001p	2002f	2003z	2004z	2005z
Wood Pulp	\$ per tonne	662	921	790	780	765	790
Paper Products	\$ per tonne	1016	1132	1110	1070	1070	1060
Panels	\$ per m ³	536	603	595	545	545	555

p = provisional f = forecast z = prediction

Source: *MAF Situation and Outlook for New Zealand Agriculture and Forestry - September 2001.*

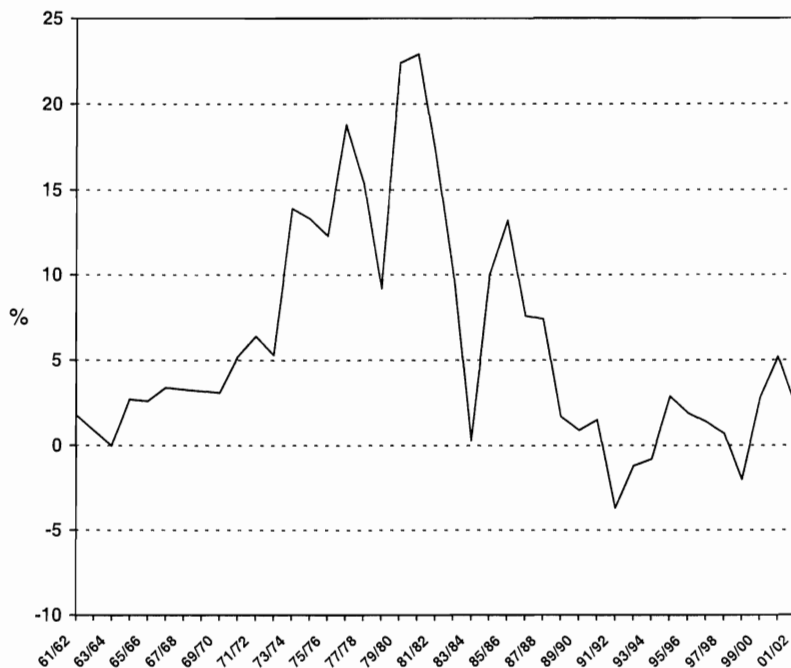
SECTION 2

FARM AND ORCHARD EXPENSES

2.1 INPUT PRICES - GENERAL INFORMATION

2.1.1 Input Price Movements

Sheep and Beef Farm Input Price Movements 1961/62 to 2001/02



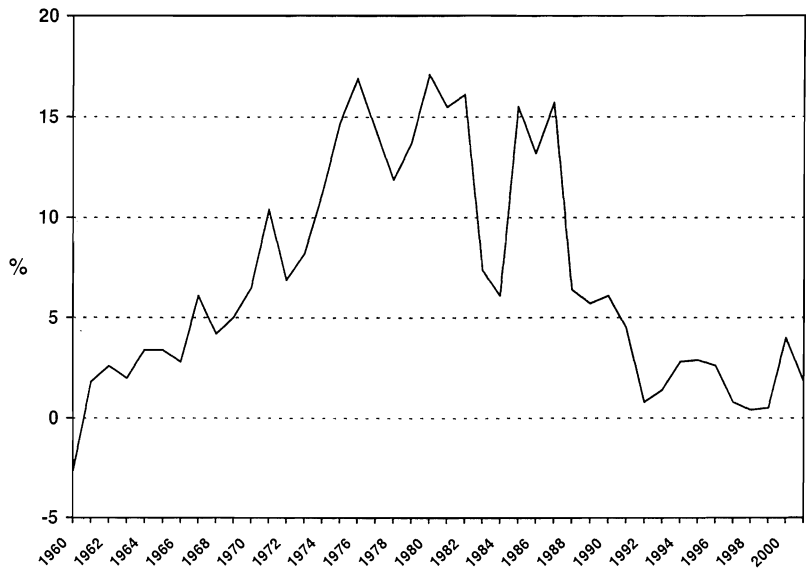
Source: *The Economic Service.*

2.1.2 Price Discounts

As farmers and growers will be aware, it is sometimes possible to negotiate price discounts from retailers, particularly if goods are purchased in bulk. Similarly, trading societies can also offer goods at cheaper than normal retail rates to members. Discounts are commonly in the order of 15% to 25% for many farm goods excluding some items such as common agricultural chemicals. To become a member of one South Island society, five hundred \$1 shares must be purchased and members receive rebates and dividends.

2.1.3 Rate of Inflation in New Zealand 1960 to 2001

The Consumer Price Index (C.P.I.) measures the rate of inflation for each year.



Source: Reserve Bank of New Zealand

Note: Also see Appendix, *Section 2.24*, for rate of inflation since 1891, and method used to calculate the fall in the value of the dollar.

2.2 WAGES / SALARIES / DRAWINGS

2.2.1 Wages and Salaries - Farm Employees

As a guide to wages or salaries commonly paid to farm employees, Mr John Fegan of *Fegan & Co Ltd*, has kindly provided the following figures. These are average figures only.

Sheep/Beef:

Shepherd	\$24,000 to \$29,000
Head Shepherd	\$26,000 to \$33,000
Stock Manager	\$30,000 to \$38,000
Manager	\$32,000 to \$60,000
General Hand/Tractor Driver	\$26,000 to \$33,000

Dairy:

	North Island	South Island
Part-Time Assistant	\$11 to \$13 per hour	\$11 to \$14 per hour
Assistant	\$19,000 to \$27,000	\$19,000 to \$29,000
Herd Manager	\$27,000 to \$40,000	\$29,000 to \$45,000
Farm Manager	\$30,000 to \$75,000	\$30,000 to \$80,000
Operations Manager	\$45,000 to \$90,000	\$55,000 to \$100,000

All amounts are assuming the person is covering their own personal expenses (power, phone etc). If the person is being provided board and lodging the rate charged ranges from \$50 to \$120 per week depending on what is being provided.

Typically board and lodging includes providing meals while the employee is working (not necessarily while on scheduled time off), doing employee's washing, providing bedding and linen.

Assistant:

Someone completing tasks under direct supervision and with few areas of responsibility other than within the dairy shed.

Herd Manager:

Has some responsibilities e.g. may be choosing the paddocks his/her herd goes to on a daily basis, but not doing the feed budget or deciding amount or timing of nitrogen application.

Farm Manager:

Makes the weekly decisions on farm e.g. has responsibility for the amount and timing of nitrogen application, but not necessarily the total amount of nitrogen for the year.

Operations Manager:

Operates to a level of working within the operating budget, often negotiating with the fertiliser company, banks, and farm supply companies. Manages all aspects regarding staff and sometimes does the GST return.

Non-Cash Benefits

All figures quoted are cash salary; if any non-cash benefits are included, they are over and above these figures. Non-cash benefits can include house, meat, and firewood in all examples. In the sheep and beef sector house power and telephone rental may be included. Employers need to be aware that these benefits can attract Fringe Benefit Tax.

Contract/Sharemilking Positions

These positions are entirely negotiable between the parties depending on herd size. Each is a separate contract and agreements are very variable.

The contract actually negotiated will reflect the remuneration required, after costs, to adequately reward the sharemilker for job size, performance, accountability and risk.

Minimum Wage Requirements

From 5 March 2001 new statutory minimum wage rates apply to all employees aged 16 and over.

- The minimum wage for youths is \$5.40 per hour, \$43.20 for an 8-hour day, and \$216 for a 40-hour week. This youth rate applies to those aged 16 to 17 years.
- The minimum wage for adults is \$7.70 per hour, \$61.60 for an 8-hour day, and \$308 for a 40-hour week. This adult rate applies to those aged 18 or more.

Workers must be paid no less than the statutory minimum wage for their age, whether full-time, part-time or casual, a home worker, or paid wholly or partly by commission, or on a piece rate. The hourly rate also applies for each hour worked more than eight per day or more than 40 per week.

The minimum wage does not apply to those who hold under-rate permits and persons undergoing specific training in some occupations.

If the worker is provided with board and lodging, a deduction of up to 15% for board and 5% for lodging can be made from the minimum hourly rate.

2.2.2 Wages and Salaries - Horticultural Employees

Some typical wage rates are as follows:

Orchard Workers (Canterbury)

Permanent Staff:

	<u>\$ per hour</u>
Assistant Foreman	\$30,500 per annum
Permanent Leading Hand	\$10.50 to \$11.50
Permanent Leading Hand II	\$9.50 to \$10.50
Adult Unsupervised	\$9.00 to \$9.50

Casual Staff:

Casual	\$8.00 to \$8.50
Casual - Quality Assurance	\$10.00 to \$12.00
Casual Supervisor	\$10.50
Tractor Driver	\$9.50 to \$10.50
Forklift Operator	\$10.00 to \$15.00

Orchard/Packhouse Workers (Auckland)

General staff

(packhouse staff paid towards lower end of scale, graders paid towards the higher end of scale)

Casual (some experience)	\$8.50 per hour
Casual - Foreman	\$10.00 to \$12.00 per hour
Tractor Drivers	\$11.00 per hour

Tomato Glasshouse Workers (Auckland)

Hourly wages range from \$8.00 to \$12.50 depending on the skill and experience. Starting rates would be \$8.00 to \$8.50. The average pay rate would be around \$10.00.

Market Garden (Southland)

Under 19 years of age	\$9.00 per hour
Over 19 years of age	\$9.50 per hour

Berryfruit Workers

Fruit picking rates are as follows but depend on the calibre of the employee:

Strawberries

Average rate	69¢ per kg
Range	42¢ to \$1.00

Blueberries

Process Picking	1.20 to \$1.50 per kg
Fresh Picking	\$1.20 to \$6 per kg

Raspberries (Wairarapa)

13 year olds	\$6.00/hr	14 to 16 year olds	\$6.50/hr
16 to 17 (no experience)	\$7.50/hr	16 to 17 experienced	\$8.00/hr
18 to 19 (no experience)	\$8.00/hr	18 to 19 experienced	\$8.50/hr
Adults (first year)	\$8.50/hr	Adults (second year)	\$9.50/hr
Adults (subsequent years)	\$10.00/hr		

Expected picking rate is 3 kg per hour. A bonus of 20 cents per hour is paid if picking rate is more than 4 kg per hour.

Machine Harvested Berryfruit

Boysenberries

Packing shed workers and tractor drivers can expect to get \$7 to \$14 per hour depending on the level of skill and experience. The most experienced workers will be tractor drivers earning around \$14 per hour.

2.2.3 Drawings

Drawings or Personal expenditure for farmers and growers:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$8.55
Waikato/Bay of Plenty Intensive	\$10.52
Central North Island Hill Country	\$5.96
Gisborne Large Hill Country	\$3.16
Hawkes Bay/Wairarapa Summer Dry	\$7.80
Hawkes Bay/Wairarapa Summer Moist	\$8.54
Manawatu/Rangatikei Intensive	\$9.41
South Island Merino	\$5.64
Canterbury/Marlborough Hill Country	\$5.96
Canterbury/Marlborough Breeding and Finishing	\$9.79
Otago Dry Hill	\$7.09
Southland/South Otago Hill Country	\$6.43

Southland/South Otago Intensive	\$12.20
National	\$7.63
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$172
Waikato/Bay of Plenty	\$222
Lower North Island	\$219
Canterbury	\$96
Southland	\$119
West Coast	\$193
National	\$193
<i>Deer</i>	<i>(per su)</i>
North Island	\$18.08
South Island	\$14.72
<i>Arable</i>	<i>(per ha)</i>
Canterbury	\$153
<i>Horticulture</i>	<i>(per ha)</i>
Kiwifruit	\$7,840
Hawkes Bay Pipfruit	\$2,608
Nelson Pipfruit	\$2,084

Source: MAF Monitoring Reports - July 2001.

2.3 ANIMAL EXPENSES

2.3.1 Animal Health - Average Costs

(See also *Section 2.3.14* for mineral supplements, licks etc.)

Average animal health costs are as follows. See individual sections for more detailed information.

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$2.21
Waikato/Bay of Plenty Intensive	\$3.13
Central North Island Hill Country	\$3.09
Gisborne Large Hill Country	\$2.17
Hawkes Bay/Wairarapa Summer Dry	\$3.17
Hawkes Bay/Wairarapa Summer Moist	\$3.08
Manawatu/Rangatikei Intensive	\$2.66
South Island Merino	\$2.61
Canterbury/Marlborough Hill Country	\$2.63
Canterbury/Marlborough Breeding and Finishing	\$3.41
Otago Dry Hill	\$2.77
Southland/South Otago Hill Country	\$2.75
Southland/South Otago Intensive	\$4.00
National	\$2.91
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$44
Waikato/Bay of Plenty	\$56
Lower North Island	\$48
Canterbury	\$55
Southland	\$52
West Coast	\$52
National	\$52
<i>Deer</i>	<i>(per su)</i>
North Island	\$2.71
South Island	\$4.08
<i>Arable</i>	<i>(per ha)</i>
Canterbury	\$15

Source: MAF Monitoring Reports - July 2001.

2.3.2 Drenches/Vaccines/Bloat Control

Sheep Drenching Costs - Examples:

Tradename:	<i>Nilverm</i>	<i>Valbazen</i>	<i>Levicare</i>	<i>Ivomec</i>
Dose rate:	1ml/5kg	1ml/6.6kg	3ml/16kg	1ml/4 kg
Cost per ml:	0.6 cents	1.0 cents	0.48 cents	2.38 cents
Cost per 50 kg ewe:	6.0 cents	7.6 cents	4.5 cents	29.75 cents

Cattle Drenching Costs - Examples:

Tradename:	<i>Levicare</i>	<i>Fenben High Mineral</i>	<i>Valbazen</i>	<i>Ivomec Injection</i>
Dose rate:	9 ml/45 kg	15 ml/50 kg	1 ml/20 kg	1 ml/50 kg
Cost per ml:	0.48 cents	.66 cents	3.7 cents	65 cents
Cost per 500 kg cow:	\$4.32	99 cents	92.5 cents	\$6.50

Drenches/Anthelmintics

Agmax Industries Ltd

Ivermectin based Endectocide				
Noromectin – Cattle – Pour On	1/2.5/5 litre		\$112.00/\$233.78/\$507.56	
Noromectin – Cattle – Injection	50/100/500 ml		\$32.00/\$57.07/\$236.00	
Noromectin – Sheep – Oral	1/5/20 litre		\$36.89/\$128.00/\$399.56	
Oxfendazole (active) white drench				
Parafend – Sheep/Lamb/Goat – Oral	500 ml/1/5 litre		\$17.33/\$23.11/\$88.80	
Parafend LV – Cattle/Sheep – Oral	500 ml/1 litre		\$39.63/79.11	
(LV = low volume)	5/20 litre		\$168.00/\$577.78	

Ancare:

Product		Dose Rate	Unit Size	Retail Price
Levicare	Sheep	3 ml per 16 kg	20 litre	\$96
	Cattle	9 ml per 45 kg		
Levicare HI-MIN	Sheep	3 ml per 16 kg	20 litre	\$108
	Cattle	9 ml per 45 kg		
Levitape	Lambs	1 ml per 5 kg	10 litre	\$304
Levitape High Mineral	Lambs	1 ml per 5 kg	10 litre	\$304
Fenben	Sheep	1 ml per 5 kg	20 litre	\$120
Fenben High Mineral	Cattle	15 ml per 50 kg	20 litre	\$132
Albendazole		1 ml per 5 kg	20 litre	\$130
Albendazole High Mineral		1 ml per 5 kg	20 litre	\$142
Albendazole C		1 ml per 15 kg	5/20 litre	\$150/\$504
First Drench/High Mineral		1 ml per 5 kg	5/10 litre	\$181/\$288
Oxfen		1 ml per 5 kg	5/20 litre	\$54/\$180
Oxfen High Mineral		1 ml per 5kg	5/20 litre	\$60/\$190
Oxfen C		1 ml per 20 kg	5/20 litre	\$180/\$480
Oxfen C High Mineral		1 ml per 20 kg	5/20 litre	\$190/\$510
Double Strength Oxfen High Mineral		1 ml per 10 kg	5/20 litre	\$100/\$264
Arrest		1 ml per 5 kg	20 litre	\$240
Arrest High Mineral		1 ml per 5 kg	5/20 litre	\$77/\$240
Arrest C		1 ml per 10 kg	5/20 litre	\$190/\$564
Genesis High Mineral		1 ml per 5 kg	5/10 litre	\$194/\$325
Genesis Tape High Mineral		1 ml per 5 kg	5/10 litre	\$236/\$436
Genesis Horse Wormer		1 ml per 20 kg	30 ml	\$25

Livestock Supplies (N.Z.) Ltd:

Bio Start – Ruminant Calf	2 litre	\$109.00
Bio Start – Ruminant	2/5/10 litre	\$98/\$242/\$468
Potassium Iodide	kg	\$58.00
Nutrimag/Calmag/Flours of Lime	kg	\$0.89/\$0.78/\$0.20

Merial NZ Ltd:

Product	Species	Dose Rate	Unit Size	Retail Price
Ivomec Liquid	Sheep	1 ml per 4 kg	5 litre	\$155.00
			20 litre	\$475.00
Ivomec Liquid (Selenised)	Sheep	1 ml per 4 kg	20 litre	\$475.00
Ivomec Injection	Cattle	1 ml per 50 kg	200 ml	\$130.00
	Sheep	0.5 ml per 25 kg	500 ml	\$279.00
	Pig	1 ml per 33 kg		
Ivomec Plus Injection	Cattle	1 ml per 50 kg	200 ml	\$156.00
			500 ml	\$315.00
Ivomec Pour-on	Cattle	1 ml per 10 kg	250 ml	\$47.00
	Deer	1 ml per 10 kg	1 litre	\$148.00
			2.5 litre	\$275.00
			5 litre	\$550.00
Ivomec Eprinex	Cattle	1 ml per 10 kg	250ml	\$51.00
	Deer	1 ml per 10 kg	1 litre	\$162.00
			2.5 litre	\$349.00
			5 litre	\$695.00
Ivomec Maximiser Capsule	Sheep	Ewe (1 capsule)	(40 to 80kg)	\$3.08 per cap
		Lamb (1 capsule)	(20 to 40kg)	\$2.66 per cap
Eqvalan Paste	Horse			\$20.00
Extender 100	Sheep		Ewe	\$2.61
Extender Junior			Lamb	\$2.44
Extender Se			Ewe	\$2.67
Extender SeCo			Ewe	\$3.04
Extender SeCo Junior			Lamb	\$2.61
Bloataid Dual			200 litre	\$1,127.00
Bloataid Super 45/11			200 litre	\$1,164.00
Bloataid Tracer Hi-Se			200 litre	\$1,329.00
Levamisole			20 litre	\$105.00
Nemadet	Sheep	1 ml per 5 kg	20 litre	\$149.00

Coopers:

Sheep and Cattle:	Dose Rate	Unit Size	Retail Price
Nilverm Selenised	1 ml per 5 kg	20 litre	\$120.00
Systemex Selenised	1 ml per 5 kg	20 litre	\$200.00
Scanda Sel	1 ml per 10 kg	10 litre	\$255.00
Valbazen Sheep Mineralised	1 ml per 6.6 kg	20 litre	\$220.00
Valbazen Cattle	1 ml per 20 kg	5 litre	\$185.00
Valbazen Combo	1 ml per 5 kg	20 litre	\$238.00
Closal	1 ml per 5 kg	20 litre	\$720.00

Cattle Endectocides*Ancare:*

Product	Dose Rate	Unit Size	Retail Price
Genesis Injection	1 ml per 50 kg	250/500 ml	\$133.33/\$266.66
Genesis Pour-On	1 ml per 20 kg	1 / 2.5 / 5 litre	\$213.33/\$533/\$1123.60

Boluses

Extender 100			\$235.56 per 100
Extender SE 100			\$238.22 per 100
Extender Junior			\$213.33 per 100

Vaccines*Ancare:*

	Dose Rate	Unit Size	Retail Price
Viracare	3 ml per animal	90 ml	\$97.50
Phenax PAR Class I		150/300 dose	\$17.80/\$35.63

Coopers:

Nilvax (sheep)	20 to 25 kg 3.5 ml dose 26 to 65 kg 4.0 ml dose >65 kg 4.5 ml dose	500 ml	\$54.00
Multine 5 in 1 (Plain, Selenised)	Sheep 2ml dose Cattle 4ml dose	500 ml	\$22.50
Lamb Vaccine (Plain/Selenised)	2ml per 10kg	500 ml	\$54.00
Lepto 2		200ml/500 ml	\$75/\$135
Scabby Mouth Classic – scratch on		150 doses	\$21.69
Scabby Guard in applicator		250 doses	\$45.63

Bloat Control*Agmax Industries Ltd:* (Price includes freight for orders over \$135)

Bloatbuster (Alcohol Ethoxylate)	20/60 litre	\$133.33/\$386.67
	100/200 litre	\$613.33/\$1,000.00
Anti-Bloat Plus	20/60 litre	\$115.56/\$324.44
	100/200 litre	\$528.89/\$866.67
Anti-Bloat No.2	20/60 litre	\$102.22/\$293.33
	100/200 litre	\$462.22/\$751.11

Ancare:

Blocare 4511	200 litre	\$868
Blocare Hi-Mineral	200 litre	\$1023

Dominion Chemicals Ltd.:

Paraffin Oil	2/5/20 litre	\$10.54/\$22.78/\$81.12
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Elanco Animal Health:

Rumensin Anti Bloat capsules	Per capsule	\$13.95
Rumensin Liquid (4,000 cow dose)	20 litre	\$365.00
Rumensin Liquid (12,000 cow dose)	60 litre	\$1,050

Growth Promotants*Elanco Animal Health:*

Compudose 200 (steers and non-breeding heifers)	\$5.70 per implant
Compudose 400 (steers and non-breeding heifers)	\$8.90 per implant

2.3.3 Dips/Sprays/Ointments/Dressings(See also contract dipping costs, *Section 2.4.7.*)*Ancare:*

Product		Dose Rate	Unit Size	Price
Flypel	Lambs/Hoggets	5 to 12 ml	5 litre	\$250
	Ewes/Rams	10 ml		
Fleecemaster			1 litre / 5 litre	\$105/\$440
Xterminated 10			5 litre / 20 litre	\$83/\$338
Cypercare		1 ml per 5 kg	1 / 4 / 20 litre	\$25/\$71/\$298
Tempor - lice	Cattle	6 ml per 100kg	1 litre / 5 litre	\$71/\$365
Vengeance			5 litres	\$268.00

Coopers:

Dips:				
Blitz		1 litre per 666 litres	5 litre	\$400.00
Grenade Dilute 1:2500 dilution		2 litre wash per sheep	5 litre	\$275.00
Supreme DFF 1:1000 dilution*			5 litre	\$540.00

* For Supreme DFF, various dilutions are used, depending on treatment method and what the treatment is for, e.g. lice, ked and blowfly.

Duracide	Fly and lice controls	10 litre	\$210.00
Wipe-out	< 4 months wool growth-2ml per 10kg body weight	10 litre	\$243.00
	4 to 6 months wool growth-4ml/ 10kg body weight		
Vanquish	Fly and lice control	20 litre	\$626.00
Magnum	Lice 25 ml (56 to 75 kg) live weight	20 litre	\$350.00
	Fly 3-4 ml <35 kg LW; 5 ml >35 kg live weight		
Blaze (cattle lice pour on)	1 ml per 10 kg	2.5 litre	\$195.00
		5 litre	\$370.00

Merial NZ Ltd:

Ivomec Eprinex Pour on for cattle and deer. Dose rate 1 ml per 10 kg	
250 ml / 1 litre / 2.5 litre / 5 litre	\$44.44/\$136.00/\$306.67/\$616.89

Coopers:

Formalin	Weak – 1litre per 50 litres water	20 kg	\$58
	Normal – 1litre per 20 litres water		
	Strong –1 litre per 10 litres water		

S.E.V.S.

Bomatak pour on for cattle	5 litres per 20 litres	\$182.90/\$580.40
Maggo	1 litre	\$68.20

Disinfectants:

Ecopine (<i>Ecolab</i>)	5 litre	\$28.62
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Technik Products: (PCL Industries Ltd)

Septrivet – Broad spectrum disinfectant in tablet form	20 tab tube	\$17.95 ea
Septrivet	200 tab pottle	\$131.20 ea

2.3.4 Metabolics/Antibiotics

(See also *Section 2.3.14* for mineral supplements, licks etc.)

Vitamin (Novartis) Sheep/cattle

Vitamin B12 1000 Vaccine	500 ml	\$42.57
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Coastal Veterinarian Group, Opunake:

Product		Price
Calcium Borogluconate 25% - milk fever - bottles	500 ml	\$7.21
Glucalmag milk fever complicated by grass staggers - bottles	500 ml	\$7.70
Glucalmax milk fever complicated by acetonaemia (grass staggers)	500 ml	\$9.92
Glucalphos milk fever complicated by acetonaemia or grass staggers and sleepy sickness in sheep	500 ml	\$11.16
Ketol ketosis in cattle and sleepy sickness in sheep/goats	5 litre	\$39.42
Magnesium Sulphate 20%	500 ml	\$5.61
Scour Powder (calves and cows)	500 g	\$5.54

Magnesium Treatment

Cost per 10g dose of actual magnesium in typical magnesium supplements:

Product	Mg	Weight (g per 10 g of Mg)	Costs (¢/10g of Mg)
Calmag (Mg oxide)	55%	18	7.5
Australian Mg oxide	55%	18	3.8
Magnesium Chloride	12%	85	8.5
Magnesium Sulphate	10%	100	11.0

Note: The figures take no account of any differences in magnesium availability in the products or of benefits of added ingredients such as molasses or trace elements.

Selenium Treatment

Costs per cow (to give equivalent periods of cover for approximately 7 to 12 months):

Selenium injection – Selovin 5 500ml (25c per injection, once per month)	\$25.42
Selenium drenched daily 1.2c per day x 210 days	\$2.52

Copper Treatment	
Costs per cow (for season):	
Copperplan injection, 88c per dose x 2	\$1.76
Copacap, 20gm bolus	\$4.00
Costs per calf:	
Cobalt injection (Prolaject) 3ml @ 17c	\$0.51
Copper capsule (Copacap 10 gm)	\$2.03

Antibiotics (for cattle)

Intra-mammary tubes

(i) Cows in milk: (generally require a course of three tubes; sold 20 per box)

Lactating Orbenin LA	\$5.22 per tube
Mastalone	\$6.39 per tube

<i>Intracillin</i>	100 ml	\$19.35
<i>Intracillin 1000</i> – intramammary	21 tubes per box	\$79.38

(ii) Dry Cows:

Cepravin (generally sold in boxes of 80 tubes, also as single tubes)	\$3.73
<i>Enduro</i> dry cow therapy	per tube \$3.30

Elanco Animal Health:

Tylan Injection (1ml per 20 kg bodyweight)	\$36.00 per 100 ml
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Other (for feet/ wounds/ post-parturient disorders etc.) Price is per pack of 20

Penicillan Duapen 3 in 1 (<i>Stockguard</i>)	\$46.22
Penicillan 100 (<i>Stockguard</i>)	\$32.36

Uterine pessories	\$6.66
Excenel RTU injection	100 ml \$130.41

Penstrep	100 ml \$40.86
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2.3.5 Animal Health Services

Veterinary Club Charges:

Veterinary club charges vary depending on the club. A typical membership fee would be \$20 to \$80 per annum, which allows members up to 10% discount on most services.

Farmed Animal Practices - average fees:

General:

Farm Visit + 1st exam	\$39.10
Re-visit	\$29.62
Farm Visit A/H	\$54.06
Travel per km	\$1.09
Lab test	\$19.36
Hourly rate eg surgery	\$114.12

Deer:

Pregnancy test	\$2.70
TB test per animal	\$3.99
TB test per hour	\$101.21
Develveting per animal	\$18.38

Cattle:		Pig	
Pregnancy test	\$1.83	Injection fee	\$10.22
Non cycling exam	\$3.24	Caesarean	\$149.25
Vaccination charge	\$1.17	Castrate Boar	\$59.87
Blood test per animal	\$3.69	Vaccination	\$1.24
Hot Iron debudding	\$4.22		
Adult dehorning	\$14.32	Sheep:	
Calf castration	\$14.72	Caesarean	\$109.03
Vasectomy	\$69.33	Pregnancy diagnosis	
Caesarean	\$154.14	- Ultrasound	\$0.53
Semen test	\$61.38	- Wet/dry	\$0.38
TB test	\$1.68	Semen Test	\$34.54
		Brucellosis test	\$3.92
Goat:		Vaccination	\$1.09
Castration	\$57.45	Vasectomy - Ram	\$48.57
Vasectomy	\$57.98		
Pregnancy diagnosis	\$3.38		

Source: Survey by the New Zealand Veterinary Association Inc. January 1999.

TB Testing:

Agri Quality N.Z charges for Deer Tuberculosis testing is as follows:

Livestock consultant on farm	\$60 per hour plus \$ 0.60 per km travel
Veterinarian	\$80 per hour
Tuberculin	1 mg \$0.30 per dose
Avian	\$0.50 per dose
Clipper hire	\$0.25 per head
Blood Testing	Materials \$3.00 per head plus lab charge of \$100

Calf Debudding/Dehorning:

Ultra-Scan Ltd:

De budding (gas) - minimum of 20 calves	\$3.40 per calf
Calf dehorning with anaesthetic, two technicians and two twin crates (80 to 100 calves per hour). Cost is \$3.40 per head.	

Facial Eczema Tolerance Testing Fees (for rams):

Ag Research Ruakura: Ramguard

No. of animals	Base Charge (Liveweight			Surcharge
	30 kg	50 kg	70 kg	(\$ per kg)
0 to 12	\$80	\$105	\$130	\$1.25
13 to 15	\$70	\$95	\$120	\$1.25
16 to 20	\$63	\$87	\$111	\$1.20
21 to 30	\$58	\$81	\$104	\$1.15
31 to 40	\$53	\$75	\$97	\$1.10
41 to 50	\$50	\$71	\$92	\$1.05
51 to 60	\$46	\$66	\$80	\$1.00
61 to 70	\$43	\$62	\$81	\$0.95
Over 70	\$40	\$58	\$76	\$0.90

The surcharge is calculated on the weight above base weight i.e. for testing 30 animals with an average weight of 55kg, the Ramguard charge would be \$81 plus 5 x \$1.15 i.e. \$86.75 per animal.

2.3.6 Animal Health Equipment

Peta Enterprises:

Peta Bloat Dispenser	pack 1 (24 hour), 1 dispenser	\$92.58
Peta Bloat Dispenser	pack 2 (12 hour), 2 dispensers	\$189.41
Peta Multi-purpose Solid Dispenser	for Mg, salt, trace elements, etc	\$165.74
Peta Zinc Dispenser	for zinc sulphate	\$177.08

Shoof International:

Drench Guns:		
Henke Drench-matic Drencher	23ml/30ml	\$88.84/\$141.33
Henke Vet-matic Drencher	5ml	\$105.78
Genia Automatic/Manual Drencher	20ml to 250ml	\$79.95 to \$132.44
Genia Large Bore Drencher	250ml	\$120.00
Drench Bottle Easy Drencher	1.2 litre capacity	\$17.73
Blue Plastic (Manual) Drencher	70ml to 300ml	\$66.62 to \$79.95
Henke/Genia Drench Containers	2.5 litre/5 litre	\$35.11/\$57.78
Henke/Genia Nozzles	Thin/short/long hook	\$13.33 to \$111.11
Henke Drench-matic Remote Hook Nozzle	1.4m	\$120.00
Henke/Genia Pour-on Nozzles		\$31.11/\$8.84
Henke/Genia Needle Adaptors	Stainless steel	\$16.44/\$17.73
Auto Vaccinators:		
Henke Vet-matic/Uni-matic/Ferro-matic	5ml/10ml	\$111.11 - \$132.44
Henke Pistol Grip	10ml/30ml/50ml	\$88.84 to \$102.22
Ovijector	0.1ml to 5ml	\$301.33
S/Steel Hypodermic Needles (box of 12)	14g - 20g (3/8" - 1")	\$8.44 to \$17.73
Intra-Rumen Needle	18cm x 2.6mm bore	\$31.07
Elplex Syringe	5ml to 50ml	\$13.20 to \$16.49
Syringe Drench Nozzle	Fits the Elplex syringe	\$12.40
Genia Syringe	300ml/450ml	\$53.29/\$74.62
Bloat:		
Bloat Knife		\$17.20
Trocar Plastic Screw	- 5mm/10 mm	\$28.40/\$29.29
Trocar Stainless	- 9 mm/12 mm	\$62.18/\$35.51
Intra-Rumen Injector	300 ml/450 ml	\$84.44/\$93.33
Mastitis:		
Mastitis Tests	- Mas-D-Tec (electronic)	\$706.67
	- Draminski (electronic)	\$617.78 to \$884.44
	- Super Paddle	\$13.29
Concentrate Mastitis Test Solution	- 1 litre	\$14.18
Concentrate Kit	- 1 litre/5 litre	\$23.07/\$29.29
Mastitis Test Paper	25 pack / 100 pack	\$6.18/\$22.67

Cow Hobbles:		
Webbing and Rings	20 cm or 35 cm leg spacing	\$26.62/\$28.40
Welfare Approved	35 cm leg spacing	\$37.78
Leg Splints:		
BOS Leg Splints	Small cow/large cow	\$53.29
Rumen Magnets:		
Square	Nylon coating, 13mm x 64mm	\$12.89 ea
Bovivet	Round with spaces to accumulate hardware inside plastic cage	\$10.00 ea
Scrotal Measuring Tape		\$84.40
Scrotal Measuring Wand	- 60 cm plastic wand	\$40.00

Drench Gun Services Ltd:

Metal Injectors:		
1 ml Automatic Poultry Injector		\$78.13
1 ml/2 ml/3 ml/5 ml Automatic Injector		\$84.38/\$86.25/\$90.63/\$87.50
5 ml Automatic Lever Action Injector		\$147.50
10 ml Automatic Injector		\$111.87
25 ml/50 ml Repeater Injector		\$112.50/\$113.56
1ml / 2ml / 5ml automatic injector with bottle attachment		\$100.00/\$100.63/\$106.88
Metal Drenchers:		
20 ml Automatic Drencher		\$99.88
20 ml Automatic Drencher/Injector		\$116.50
30 ml Automatic Sheep Drencher		\$133.13
60 ml Cattle Drencher Automatic/Non-automatic		\$143.75/\$130.59
Plastic Drenchers and Injectors:		
1 ml/3 ml/5 ml Plastic Injector		\$19.37
10 ml Plastic Injector		\$19.87
12.5 ml Drencher/Injector		\$66.88
20 ml Plastic Repairable Drencher		\$77.50
30 ml Plastic Non-automatic Sheep Drencher		\$85.88
Drenchers/Injectors Complete:		
20/30/60ml automatic drencher with 2.5l backpack		\$123.13/\$159.38/\$162.13
Jetting:		
Dutjet Jetting Handpiece		\$151.25
Accessories:		
Floating Hook		\$68.99
Sheep/Cattle Hook Nozzles		\$14.80/\$26.44
Sheep/Lamb Nozzles		\$17.87/\$22.25
2.5 /5 litre Backpacks		\$35.87/\$33.80

Instrument Supplies Ltd (Forlong & Maisey):

Vaccinators:	
Standard Vaximate – 1ml, 2ml, 5ml	\$13.99
V-Handle Vaximate – 1ml, 2ml, 5ml	\$14.77
V-Handle Injector (complete) – 10ml	\$18.15
V-Handle Drencher (complete) – 10ml	\$23.30

Needles: 16G – 18G Luer Lock Needles (1 Dozen)	\$4.24
Drench Guns:	
‘Supershot’ Drencher (metal) - 50ml and backpack (dairy gun) – 4.5 litre	\$153.72
‘Supershot’ Drencher (metal) - 20ml with Backpack (complete)	\$147.07
‘Defender’ Drencher complete (plastic)	\$72.42
‘The Protector’ Drencher/Pour On Gun – 25ml	\$69.63
Backpacks:	
Back Pack Kit (complete) – 10 litre	\$61.45
Flexipack Back Pack (complete) – 5 litre	\$26.77
Back Pack (complete) – 2 litre/4.5 litre	\$16.50/\$29.04

NuMedic:

Complete Systems:	
Unmetered drenching system – complete kit includes 140 litre tank, pump, filter, timer, 2 handguns, 30m of 20mm hose, 25m of 8mm hose, cable ties, cup hooks, masonry anchors and instruction booklet	\$1,942
Deluxe metered drenching system – includes above system plus metering head with separate bloat oil injection unit, regulators, gauges, air hose, air compressor, 2 litre reservoir, and low pressure 50 litre bloat oil tank.	\$3,953
Upgrade Kits – to upgrade unmetered to deluxe metered	\$2,011
Accessories:	
Teat Spray 6 litre/50 litre tank, regulator, gauge, hose etc	\$335/\$385
In-Line filter kit – boosts performance of older systems	\$103.65
NuMedic hand gun	\$81.50
24 hour mixing timer	\$38.50
Air compressor – 2hp	\$545

For calving and lambing equipment see *Section 2.3.17* (Stock Management)

2.3.7 Dog Expenses

Dog Registration Fees

These vary depending on the Local Body involved. Examples of some Local Body fees are: Prices include GST, fees for pups depend on age.

Ashburton District Council

Rural/Urban Control Owners (per dog)	\$12/\$15
License to keep more than 3 dogs	\$25
Renewal of license to keep more than 3 dogs	\$10

Buller District Council

Entire/Desexed	\$40/\$27
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Hauraki District Council

Working Dogs – Entire/De-sexed	\$36/\$23.50
Urban Dogs – Entire/Desexed	\$76/\$63.50

Kaikoura District Council

Base registration	\$38.00
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Desexed or responsible dog owner	\$29.00
Three or more dogs	\$89.00

Masterton District Council

Rural 1 st Dog/Rural 2 nd and Subsequent Dogs	\$30/\$15
Urban Approved (spayed/neutered)/ Urban Approved (entire)	\$30/\$60

Matamata Piako District Council

Full registration	\$98
Working dog	\$68
With no complaints bonus, working dog	\$33
With no complaints bonus, renewal of license and working dog	\$18

Papakura District Council

Ordinary costs	\$70
Licensed Dog Owner	\$40

South Wairarapa District Council

Rural dogs - First five dogs (subsequent dogs free)	\$123.75
- Up to four dogs	\$24.75 per dog

Waitaki District Council

Owner Fee	\$14
- Working dogs/farm pet dogs/selected owner dogs	\$9 per dog
- Non working dogs	\$42 per dog

Other Districts: Working/Rural Dogs (rebates are often available on desexed dogs and for second or subsequent dogs)

South Taranaki	\$32	Waitomo	\$17
Southland	\$12.50	Stratford	\$25
Rangitikei	\$25	New Plymouth	\$32
Tasman	\$16	Westland	\$30
Ruaapehu	\$15	Central Otago	\$10
South Waikato	\$35	Queenstown Lakes	\$20
Horowhenua	\$20	Timaru	\$27

Dog Feed – see *Section 2.3.14*

2.3.8 Breeding Expenses

The average or range for each region is as follows:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$0.42
Waikato/Bay of Plenty Intensive	\$0.33
Central North Island Hill Country	\$0.06
Gisborne Large Hill Country and Hawkes Bay/Wairarapa Summer Dry	\$0.22
Hawkes Bay/Wairarapa Summer Moist	\$0.35
Manawatu/Rangitikei Intensive	\$0.56
South Island Merino	\$0.22
Canterbury/Marlborough Hill Country	\$0.11

Canterbury/Marlborough Breeding and Finishing	\$0.12
Otago Dry Hill	\$0.24
Southland/South Otago Hill Country	\$0.33
Southland/South Otago Intensive	\$0.29
National	\$0.25
Dairy	(per cow)
Northland	\$27
Waikato/Bay of Plenty/Lower North Island	\$29
Canterbury/Southland	\$28
West Coast	\$29
National	\$29
Deer	(per su)
North Island	\$0.34
South Island	\$0.05

Source: MAF Monitoring Reports - July 2001.

Artificial Breeding:

Livestock Improvement Corporation:

Nominated Semen Options:

A wide range of dairy bulls with New Zealand proofs, as well as many overseas dairy bulls, and a selection of beef breeds, are listed in the 2002 CHEQMATE and GLOBULL catalogues along with complete pricing details.

- Insemination fees for nominated semen are \$4.90 per insemination
- DIY training \$275 for a five day course.
- Leasing of deep freeze banks, \$90 fixed fee plus \$10 per week or part thereof subject to availability of banks. Nitrogen to be supplied at the ruling rates. Non-refundable deposit of \$45 is charged on application for lease.
- Semen storage, \$2.50 per month for the first 100 straws. Over 100 straws the additional straws are charged at a rate of 2.5 cents per straw per month.

Premier Sires

	Technician Service	DIY Operators
0 to 100	\$14.40	\$13.40
101 to 200	\$13.80	\$12.80
201 to 300	\$13.20	\$12.20
301 to 400	\$12.60	\$11.60
401 to 500	\$12.00	\$11.00
501 to 600	\$11.50	\$10.50
601 to 700	\$11.00	\$10.00
701 to 800	\$10.70	\$9.70
801 to 900	\$10.40	\$9.40
901 to 1000	\$10.10	\$9.10
1001+	\$10.00	\$9.00

The above tables are the sliding scales for Premier Sires. The farmer is charged in 100 insemination lots (or parts of) depending on how many inseminations to Premier Sires. For example 320 Technician Service Premier Sires inseminations would be charged as follows:

1st 100 insems @ \$14.40 = \$1,440
2nd 100 insems @ \$13.80 = \$1,380
3rd 100 insems @ \$13.20 = \$1,320
4th 20 insems @ \$12.60 = \$ 252
320 insems = \$4,392

Some locations, timing, or non-dairy operations may attract additional charges.

A minimum charge at 70% of your Premier Sires ordered will be applied. For example: 200 cows to Premier Sires will result in a charge for at least 140 inseminations.

InvestaMate discount applies to herds who use Premier Sires. Herds qualify by doing Premier Sires inseminations equal to or greater than the number of milking cows. Discounts can include Nominated Semen. Contact *Livestock Improvement Corporation* for details.

Discount levels are: 1st year 3%, 2nd year 5%, 3rd year plus 10%

Cattle Embryo Transfer Fees:

Premier Genetics N.Z. Ltd.: Travel and accommodation expenses are additional

One Donor – programme and flush (including drugs)	\$500.00
Two Donors – programme and flush (including drugs)	\$450.00 per donor
Three Donors – programme and flush (including drugs)	\$400.00 per donor
Four or more Donors – programme and flush (including drugs)	\$350.00 per donor
Non surgical transfers – per embryo	\$80.00
Surgical Transfers	\$100.00
Special Rate: (Out of season only) Five or more donors. (includes flushes, transfers into recipients, freezing and drugs)	\$600.00 per donor
Freezing – charge per embryo	\$40.00
Thaw and Implant (charge per embryo)	1 to 9 embryos \$100.00 10 to 20 embryos \$80.00 more than 20 embryos \$60.00
Surgical Transfers	add \$25 per recipient
Embryo Splitting	Price on request.

The above fees do not include synchronisation of recipients, (normally be carried out by the farmer's own veterinary practitioner. 5% discount for payment on day of embryo transfer.

Bull Semen Collection:

Premier Genetics:

On Farm Collection	Farm Visit Fee	\$70.00
	Semen Collection and processing	\$3.00 per straw
	Failure of semen to process	\$75.00
	Travel	\$0.65 per km
On Centre Collection	Entry Fee	\$550.00
	Collection Fee	\$2.00 per straw
	Grazing after 42 days	\$42.00 per week
Storage	Semen	\$0.50 per straw per year
	Embryos	\$2.00 per embryo per year
Note: Minimum charge		\$20.00 per year
Dispatch	Dispatch fee	\$20.00 plus freight at cost
	Liquid nitrogen	\$5.00 per litre

Bull evaluations	\$15.00 per bull
Minimum charge	\$75.00 (plus travel at \$0.65 per km)
Fresh/frozen semen evaluation	\$15/\$25 per dose

Xcell Breeding Services Ltd.

Frozen semen collection and processing:

On Farm unlicensed	mileage at \$0.60 per km plus \$3.00 per straw	
On Centre licensed	200 to 250 straws (per straw)	\$3.00
	251 to 500 straws (per straw)	\$2.80
	501 to 1000 straws (per straw)	\$2.50
	1000 plus straws (per straw)	P.O.A.

Grazing at \$5.00 per head per day is also charged. Health testing/Diagnostics at \$200/ bull.

Inducing Dairy Cows:

Coastal Veterinary Service, Opunake, charges the following for inducing:

First induction	\$7.91
Drug per animal (1 st shot 5ml dexavet AP)	\$7.00
Second induction	\$8.84
Drug per animal (2 nd shot 5ml Lutalyse)	\$5.24

Some variations occur i.e. some cows require a third injection, often additional injections are needed to prevent metabolic problems.

Deer Reproduction:

Deer Reproduction Services: Embryo Transfer fees 2002:

1 to 2 donors	\$800 each (natural mating), \$875 each (AI/ET) plus AI cost - see below
3 to 5 donors	\$600 each (natural mating), \$675 each (AI/ET) plus AI cost - see below
6 to 20 donors	\$400 each (natural mating), \$475 each (AI/ET) plus AI cost - see below
Recipient Fees	\$125 each

Freezing embryos Local use \$25 per embryo (\$100 minimum),

International export \$40 per embryo

Thaw and implant Less than 10 embryos, \$25 per embryo, 11 to 15 embryos, \$20 per embryo, 16 plus embryos, \$15 per embryo

Artificial insemination (On farm laparoscopic intra uterine insemination):

< 20 hinds, \$70 each, 20 to 50 hinds, \$65 each, 50 to 100 hinds, \$55 each, 100 plus hinds, \$45 each.

Xcell Breeding Services Ltd: Travel costs are also charged.

Frozen semen collection and processing: 0 to 100 straws (per straw), \$10.00, 101 to 500 straws (per straw), \$9.00, 501 and over (per straw), \$8.00.

Early post mortem sperm recovery from testicles (per straw), \$10.00

Elk and Red deer trans-cervical AI: Prices do not include synchronisation or travel costs

Under 10 hinds, \$25 (per hind), 11 to 25, \$22 (per hind), 26 to 50, \$18 (per hind), 51 to 100, \$14 (per hind), 101 plus, \$12 (per hind).

Venpro pak - minimum 150 red hinds - \$40 per hind (includes semen from 1 of 3 top Elk bulls, red hind synchronisation, and AI.). Travel at 60c per km is also charged.

Sheep / Goat Reproduction:

Xcell Breeding Services Ltd:

Frozen semen collection and processing:

On centre projects, 0 to 200 straws, \$6.00 per straw, 200 to 500 straws, \$4.00 per straw, 500 plus straws, \$ 3.50 per straw. Grazing at \$2.00 per head per day is also charged.

Export Projects may carry special charges, apply for details.

Premier Genetics N.Z. Ltd. A fee of \$75.00 is charged for failure of semen to process.

On Farm	Farm visit fee	\$70.00
	Semen collection and processing	\$6.00 per straw
	Travel	\$0.65 per km
On Centre	Health testing	At cost
	Agistment at A.I. centre	\$2.50 per day
	Semen collection and processing	\$6.00 per straw

Sire Replacement: See Stock Purchases, below.

Pregnancy Detection: Refer to *Section 2.4.8*

2.3.9 Ostrich and Emu Incubation

Contract Incubation Fees:	Emu	Ostrich
Per egg in incubator	\$5.00	\$0 to \$5.00
Per chick hatched	\$15.00	\$20.00 to \$25.00
To raise emu chicks to 2 months	\$25.00 per month	-
To raise ostrich chicks to 3 months	-	\$25.00 per month
To raise ostrich chicks 3 months to slaughter	-	\$20.00 per month
Breeder Agistment		\$1 per head per day

NZ Ostrich Export Corporation Ltd has contracts to purchase 3 month chicks at 30 kg minimum. Therefore some specialists are prepared to do incubation and raise chicks to 3 months on a 50/50 split with the owner/breeder. This 50/50 split also happens between the grazier and the owner/investor for process ostriches.

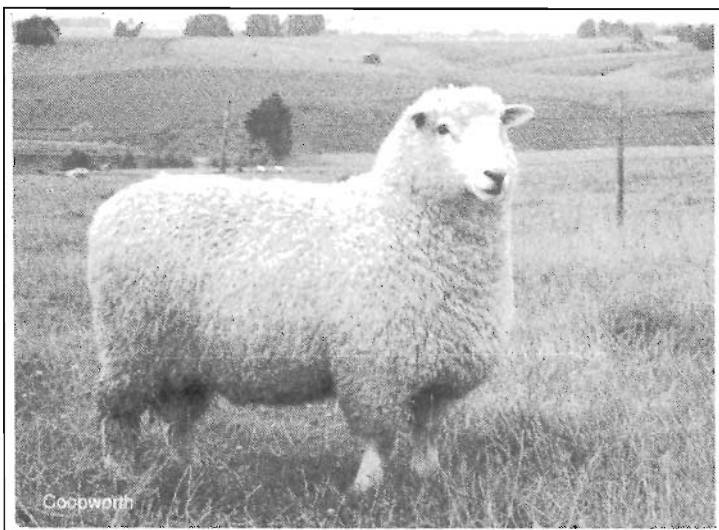
2.3.10 Stock Purchases

Sheep – See also *Section 1.2.10* for ewes, two tooth and lambs

Rams – the following are approximate values for flock rams: (Use as a guide only)

Dorset Down	\$200 to \$450
Corriedale	\$200 to \$500
Polled Dorset	\$200 to \$500
South Dorset Down	\$250 to \$450
Perendale	\$200 to \$400
South Suffolk	\$200 to \$400
Border Leicester	\$200 to \$350
Suffolk	\$250 to \$500
Borderdale	\$250 to \$450
Romney	\$250 to \$500
Coopworth	\$200 to \$600
Merino	\$250 to \$700

With Coopworths You Can Budget with Confidence



**Secretary: Chris Logan
P.O. Box 169
Lincoln University
Canterbury**

Exotic Breeds:

The following figures are some approximate values for flock rams:

<i>Texel:</i>	Average Pick	Range
Purebred	\$375	\$250 to \$500
7/8	\$350	\$300 to \$425
¾	\$300	\$250 to \$425
½ (Dorset Cross)	\$350	\$250 to \$550
<i>Oxford Down:</i>		
Purebred		\$200 to \$300
7/8		\$200 to \$300
¾		\$200 to \$250
½		\$200 to \$250
East Friesian:		
Purebred		\$500 to \$1000
½		\$300 to \$700
<i>Finnish Landrace: ½ bred</i>		\$250 to \$300

Beef Cattle

Bulls – Beef bulls vary much in price depending on breed, qualities desired, etc.

Run Bulls at Name auctions -	
Angus	\$3,000 to \$20,000
Hereford	\$2,500 to \$10,000
Charolais	\$2,000 to \$10,000
Run Bulls from second tier studs are usually in the range of	\$2,000 to \$5,000

Beef Breeding Cows, Heifers, Steers – see *Section 1.4.5* and *1.4.6*

Dairy Cattle –See *Section 1.5.6*.

Deer

- Stags

The average price for breeding stags (red deer) is in the region of \$2,500 to \$3,500. Some very high producing stags have been sold for up to \$70,000. The average price for Wapiti breeding stags is between \$2,500 and \$4,000 with some top stags reaching \$25,000.

- Hinds, Weaners, Yearlings, Velveting Stags – see *Section 1.6.4*

Goats - See *Section 1.7.6*

Pigs - See *Section 1.8.3*

Ostrich and Emu - See *Section 1.9.4*

Alpacas and Llamas - See *Section 1.10.3*

2.3.11 Herd Testing Charges

Livestock Improvement Corporation Herd Test clients (except goat herds) are automatically enrolled in MINDA, and the fees for MINDA are additional to the Herd Test fees.

Herd Test Fees

Visit Fee 1	\$220
Visit Fee 2	\$180

Visit Fee 3	\$95
Visit Fee 4+	\$45
Assist Fee (per labour unit)	\$128
Per cow test fee	\$1.30

Goats

With or without MINDA – same price as a full Herd Test

Goat Owner Sampling (GOS) 25 animals or less – with or without MINDA:

Per goat per test fee - \$2.10

INVESTATEST

Clients will receive the INVESTATEST discount after the fourth herd test and on the subsequent tests thereafter in the same season. Discount levels are:

1 st year	3 %
2 nd year	5 %
3 rd plus years	10 %

MINDA

MINDA – Total: This service is for supplying dairy clients.

Monthly Herd Registration Fee = \$13

Monthly Animal Fee:

Paper – 18c for female animals born prior to 31 December 2000 (from 1 June 2002) and 9c for all other animals.

Electronic – 15c for female animals born prior to 31 December 2000 (from 1 June 2002) and 7c for all other animals.

MINDA – Trace: This service is for non-supply dairy clients and beef clients.

Monthly Herd Registration Fee = \$6.50. Monthly Animal Fee = 9c per animal

MINDA Herd Management Reports

Entitled Reports:

- For Minda Clients -

- 1 Herd Record
- 2 Herd Profiles
- 1 Summary of Matings Report
- 1 Expected Calving Report
- Calving and Mating Notebooks
- Health Audit Reports

- For Clients Using Herd Testing and MINDA -

As per MINDA Total plus choice of Herd Test Reports – one copy of the selected Herd Test Report following each Herd Test plus 1 Somatic Cell Count report per season.

- For AB Only Clients -

Not entitled to any reports

Optional Reports:

Usually charged at \$12.00 per report plus 6c per animal listed on the report.

Diary Sale Catalogue = \$35 plus \$1.15 per animal

Herd Record = \$15 plus 6c per animal listed

3 Generation Pedigree = \$6 per animal report

Individual Animal History = \$6 per animal report

2.3.12 Dairy Shed Expenses

Average Total Dairy Shed Expenses

Dairy shed budget figures should ideally be based on farmer estimates and past records of farm expenditure. Where such information is not available, the following figures may serve as a guide for budgeting purposes. These do not include animal health or electricity (See *Section 2.3.1* and *Section 2.5.1*).

	per cow
Northland	\$26
Waikato/Bay of Plenty	\$19
Lower North Island	\$17
Canterbury	\$22
Southland	\$17
West Coast	\$19
National	\$19

Source: *Dairy Monitoring Report - July 2001*.

Detergents and Sanitizers

Agmax Industries Ltd:

Dairy Hygiene Products:		
Alkali Sachets Powder 100g	15 kg/25 kg	\$97.98/\$128.89
Alkali Sachets Powder 150g	25 kg	\$128.89
Acid Sachets Powder	15 kg/25 kg	\$93.33/\$120.00
Contact Acid Detergent-Sanitiser	20 litre/60 litre	\$71.11/\$173.33
	100/200litre	\$262.22/\$440.00
Multiwash 900 Liquid Chlorinated Alkali	20 /60 /100 litre	\$62.22/\$142.22/\$248.89
Vat Cleaner	Full kit	\$62.22
Replacement Concentrate	5 litre/20 litre	\$35.56/\$84.44
Replacement Tray, Roller and Sleeve Set		\$14.22
Replacement Sleeve		\$5.33
Hygiene Test Kit		\$26.67
<hr/>		
Sodium hypochlorite (<i>Clark Products</i>)	5 litre (13%)	\$18.16

Milka-Ware NZ:

Dairy Alkali	5 litre/20 litre	\$25.00/\$84.00
	100 litre/200 litre	\$370.00/\$570.00
Dairy Alkali Plus	5 kg/10 kg/20 kg	\$27.40/\$53.10/\$98.95
	Refill 20 kg	\$83.00
Dairy Acid	5 litre/20 litre	\$27.70/\$92.00
	100 litre/200 litre	\$430.00/\$758.90
Dairy Acid Plus	4 kg/20 kg	\$31.55/\$122.00
Bomb Packs	2.1 kg/2.5 kg	\$24.20 /\$63.70

Dairy Ointments, Soaps and Teat Sprays

Agmax Industries Ltd: (Price includes freight for orders over \$135)

Teatspray Products:		
Teatsweet (sachet packaged)	5 kg/12 kg	\$248.89/\$551.11
Iodine Teatspray	20 litre/60 litre	\$144.89/\$406.22
	100 litre/200 litre	\$648.89/\$1,146.67
Teatspray 'Plus' (Chlorhexidine based)	20 litre/60 litre	\$111.11/\$315.56
	100 litre/200 litre	\$511.11/\$884.44
Emollient Products:		
Titivate Emollient	20 litre/60 litre	\$93.33/\$264.00
	100 litre/200 litre	\$426.67/\$733.33
Sorbitol Emollient	20 litre/60 litre	\$75.56/\$204.44
	100 litre/200 litre	\$337.78/\$533.33

Ancare:

Teatcare Plus	200 litre	\$977
Teatcare	20 litre	\$131

DeLaval:

Alfa teatsan	5 litre	\$44
Teat guard plus	20 litre	\$205
Udder cream	200 g	\$3.00

Milka-Ware NZ:

Dairy Teatspray	5 litre/20 litre	\$40.60/\$141.40
	100 litre/200 litre	\$660.00/\$1,180.40
Teat Emoliant	20 litre	\$131.50
Glycerine	20 litre	\$204.50
Dairy Idophor	20 litre	\$117.70

Merial NZ Ltd:

Teatspray Plus	20 litre	\$187.55
Udder Cream	3.5 kg	\$39.02
Deasan	20 litre	\$147.20
Udderwise	20 litre	\$200.00

Shoof International: (Prices include delivery on orders over \$50.00)

Udder Gold	7.6 litre/15.2 litre/38.0 litre	\$120.00/\$230.22/\$532.44
4XLA	15.2 litre/38.0 litre	\$132.44/\$354.67

Dairy Shed Equipment

Agmax Industries Ltd: (Price includes freight on orders over \$135)

Cambrian Teatsprayer	5 litre capacity	\$57.78
Dairy Apron	Medium weight PVC	\$31.11

Milka-Ware:

Milka-Ware WRC Vacuum Pumps	WRC2 to WRC4	\$5,580 to \$9,180
Milka-Ware Pump Diaphragms	DCM/Flynn	\$26.25
Milka-Ware NZ Liner	No.s 2,6,12,16,21	\$5.50
Milka-Ware USA Liner	No.s 10,20,30,AL1U, AL9U	\$6.00
Milka-Ware European Liner	No.s 108, 109	\$6.00
Star Claw		\$125.00
Starlite Claw		\$133.35
Maxi Claw (Auto shut off)		\$252.00
Yellowline/Omni Air Tube	1220 mm to 20 m	\$6.25 to \$108.00
Yellowline/Omni Twin Tube	1220 mm to 20 m	\$8.00 to \$116.00
Yellowline/Omni Milk Tube	1220 mm to 20 m	\$9.30 to \$185.00
Yellowline Claw Tube	165 mm to 18.3 m	\$1.40 to \$65.00
Suction Tube	22 mm to 35 mm	\$82.00 to \$150.00
Flomax Milk Pump	0.75 to 1.5 kW	\$1,722 to \$1,955
Milk Pump controllers	level control	\$780 to \$2,335
	flow control	\$2,450 to \$3,625
Milk Filter		\$495 to \$1,510
Filter Sleeve		\$32.30 to \$111.60
Filter Sock		\$39.70 to \$127.00
Milk Cooler	Single Bank (18-104 plate)	\$1,038 to \$3,190
	Industrial (3,000-10,000 litre)	\$4,350 to \$5,640
Receiving Can	Systemax 2000 C/P	\$2,060
	Systemax 2000 Tee Can	\$2,250
	Systemax Loop Can	\$2,290
Test Buckets	Plastic/Stainless Steel	\$205/\$310
Mastitis Detector C/P		\$28.60
Jetter	Milka-Ware	\$90.00 to \$96.00
	Variflo	\$66.00 to \$94.50
	Hyjet	\$80.00 to \$88.00
Washline Injector	Herringbone/Rotary	\$935.00/\$1,240.00
Hot Water Cylinder	Galvanised	\$1,595 to \$4,811
	Stainless Steel	\$1,755.to \$3,040
Auto Teat Sprayer		\$3,795

Shoof International: (Prices include delivery on orders over \$50.00)

<i>Udder Sprayers:</i>		
Udder Gun		\$431.11
Udder Spray Compact	480ml	\$19.11
Udder Sprayers Short and Long	1 litre	\$17.73/\$20.40
Bovaloop Premium Udder Sprayer	8 nozzle spray loop	\$43.55
Udder Sprayer Trigger Jumbo	1.1 litre bottle	\$20.40
<i>Teat Dip Cups</i>		
Nunc	250 ml	\$12.89
Non-Return	350ml	\$17.73
Alcide	265 ml	\$20.00

Onga (N.Z.) limited – Davies & Onga Pumps:

Dairy Wash Down

Hi Flow Self Priming Cast Iron Centrifugal Pumps

Model	182	1500W	50psi	240/415v	\$995/\$995
	183	2400W	59psi	240/415v	\$1,595/\$1,125
	184	3800W	71psi	415v	\$1,570
	185	6000W	77psi	415v	\$2,150

Dairy Shed In-Place Cleaning

Stainless Steel Centrifugal Pumps

Model	OCS 401	\$505.00
	OCS 403	\$635.00

McNeill Pumping & Irrigation:

Dairy wash down pumps close coupled motors

	kW	Metres	litres per minute	
Dairy blaster 5.5	5.5	30 (40psi)	326	\$1,991
Dairy blaster 7.5	7.5	45 (64psi)	280	\$2,201

Dairy Shed in place cleaning (vat wash)

CHI 2.40	0.43	35 (50psi)	24	\$729
CHI 4.60	1.08	35 (50psi)	60	\$942
CHI 8.20	0.96	30 (40psi)	120	\$951
CHI 12.20	1.72	40 (60psi)	150	\$1,082

Note: For complete dairy shed units see *Section 2.21.2*

Annual Certification

All farm dairies supplying to *Fonterra* must be certified each season

	Annual Farm Dairy Certification	\$60
Plus either	Recognised quality management system	Nil
Or	Farm Dairy HACCP Inspection / Assessment	\$100
	Revisits for Appraisals and Inspections	\$60

2.3.13 Calf Rearing

Cost of Calf Rearing (*Source: I.M.Brookes, Massey University, December 2001*)

Feed costs for Friesian calves over first 10 weeks of life:

(i) Restricted Milk and Pasture

Daily gain over 10 weeks – 0.8 kg per day				
Live weight at 10 weeks – 90 kg				
Whole milk:	5 litres per day for 70 days	350 litres @ 42.5¢		\$149.00
Pasture:	0.5 kg DM per day for 56 days	28 kg @ 10¢		\$3.00
				\$152.00

(ii) Early Weaning

Daily gain over 10 weeks – 0.8 kg per day			
Live weight at 10 weeks – 90 kg			
Whole milk:	5 litres per day for 42 days	210 litres @ 42.5¢	\$89.00
Calf nuts:	1.0 kg per day for 56 days	56 kg @ 67.5¢	\$38.00
Pasture:	0.5 kg DM per day for 56 days	28 kg @ 10¢	\$3.00
			\$130.00

(iii) Ad Lib Milk

Daily gain over 10 weeks – 1.1 kg per day			
Live weight at 10 weeks – 110 kg			
Whole milk:	8 litres per day for 42 days	336 litres @ 42.5¢	\$143.00
Calf nuts:	1.0 kg per day for 20 days	20 kg @ 67.5¢	\$13.00
Pasture:	2.0 kg DM per day for 28 days	56 kg @ 10¢	\$6.00
			\$162.00

(iv) High protein meal/straw

Daily gain over 10 weeks – 1.0 kg per day			
Live weight gain over 10 weeks – 100 kg			
Whole milk	2 litres per day for 28 days	56 litres @ 42.5c	\$24.00
Milk powder	250 g per day for 28 days	7 kg @ \$4.27	\$30.00
High protein meal	ad lib.	130 kg @ 72.4c	\$94.00
Straw	ad lib.	1 bale @ \$4.00	\$4.00
			\$152.00

Feeding Equipment

Agrifeeds Ltd:

Agri-feeders	250 kg	\$164.40
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McInnes Manufacturing Ltd:

Milk Feeders – Natural Suckling:	
Milk Bar Teat	\$2.22
Milk Bar Bottle	\$18.62
Milk Bar Bottle with frame	\$35.51
Milk Bar 1 to 10	\$26.58 to \$118.18
Milk Bar 25 – clamp on model	\$751.11
Milk Bar 5 – compartment (MB5C)	\$79.56
Bunt Guard (fits MB5C)	\$66.67
Milk Bar Clips	\$8.44
Milk Bar 25 – front end loader use	\$1,511
Milk Bar 40 to 60 – single or double axle	\$2,352 to \$3,221
Milk Bar teat tool	\$57.78
Milk Feeders - with tubes:	
Griptite Calf Teat	\$2.58
Milk Bar 6 tube/12 tube	\$75.26/\$142.18
Milk Bar Lamb 1 to 3	\$28.00 to \$30.84
Milk Bar Lamb 8/18	\$82.67/\$157.11

Meal – Pellet Feeders:		
Braden Start Nipple		\$6.22
Braden Start Bottle		\$29.82
Snack Bar		\$36.89
Munch Trough		\$66.62
Meal Bar		\$150.22
Bird Proof Meal Bar		\$176.89
Bird Proof Curtain/Strips		\$44.00/\$6.22
Ezi-Ends Kitset trough ends		\$66.67
Waterers and accessories:		
Snack Water Trough		\$62.18
Portable Water Trough		\$93.24
McInnes Float Valve		\$26.67
McInnes Water Trough – 1000 litre (with Megaflow trough valve)		\$262.22
McInnes Dispenser		\$440.00
McInnes Tandem Dispenser		\$667.67
McInnes Dispenser Stand		\$46.50
Molasses Feeders		
Mobile Molasses Trough - single axle/tandem axle		\$2,340/\$2,940
Mobile Lick Bar – single axle/tandem axle		\$2,664/\$3,264
Mobile Lick Ball Kit		\$324.00
Free-standing Lick Bar – 9 or 18		\$2,400/\$2,111

Shoof International: (Prices include delivery on orders over \$50.00)

Pigs:		
Nursery Feeders	3/6 spaces	\$265.78/\$440.00
Milk Feeders	3/8 spaces	\$88.00/\$176.89
Piglet Creep Feeder	2 space	\$75.56
Plastic/Stainless Creep Bowls	31 cm/25 cm diameter	\$71.07/\$88.84
Waterers	- for piglets	\$71.07 to \$88.00
	- for weaners/fatteners	\$84.40 to \$150.22
Water Nipples	Small piglet to fatteners	\$13.29 to \$14.18
Calves:		
Calf Feeder Bag with flexi probe and on/off clamp for stomach feeding		\$39.95
Magrath Fluidfeeder	with fully flexible probe for stomach feeding	\$38.18
Bovivet	Flexi or rigid probe for colostrum or electrolytes	\$32.84/\$26.62
Colostrometer	milk tester	\$88.84
Calf Feeders	- Easy Feeder (1 speed)	\$17.73
	- Speedy Feeder (3 speed)	\$26.62
	- Peach Feeder (hand held or fence mounted, 3.5 litres)	\$33.73
Braden Start Feeder	- fill bottle with pellets/meal/grains etc	\$31.11
Teats	- Soda bottle (lamb/calf)	\$3.51/\$5.29 each
	- Ad-Lib	\$14.67 each
	- Self Mounting (complete or teat only)	\$16.44/\$3.47 each
	- Braden Start Feeder teats	\$6.44 each
Calf Bucket-Drinking Dummy (floats in bucket)		\$4.40 each

Calf Drinking Water Nipple		\$44.40
Electric Milk Warmer	- standard or teflon	\$493.33/\$532.44
Milk Powder Wisk	- 45 cm	\$29.29
Milk Powder Mixer	- 63 cm	\$31.07
Milk Powder Plunger	- 100 cm	\$48.84

Humes:

Dog Bowls		\$20.00
Salt Lick Pans		\$16.19
Pig Feed Troughs 1.0 m/2.0 m (70 kg/140 kg)		\$57.20/\$83.20

Streamline Feeding Systems:

Streamline Universal Calf Feeder		\$844.44
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Other Calf Rearing Equipment

McInnes Manufacturing Ltd:

Meal Bar		\$150.22
Bird Proof Meal Bar		\$176.89
Munch Trough		\$66.62
Snack Bar		\$36.89
Portable Water Trough		\$93.24

Shoof International:

Debudders Electric	SAMS Standard/Medium/High Power	\$128.89/\$176.89/\$265.78
	Quality/Heavy Duty	\$230.22/\$168.00
Debudders Gas	Portasol/Vulcan Gas Cordless	\$265.78
	LPG/SAMS LPG	\$239.11/\$354.67
Replacement Tips	Electric	\$13.29 to \$26.62
	Gas	\$34.67 to \$75.56
Butane Gas Refill	250 ml	\$8.67
Barnes Debudder	32 cm economy/quality	\$38.18/\$79.95
	42 cm quality	\$115.51
Debudding Paste	Hornex 20 g tube	\$12.93
	Dr Naylor 120 g safety capped pot	\$15.95
	White 175 g with applicator nozzle	\$21.29
Calf Neck Bands	10 pack	\$11.51
Calf Mothering Double Collar		\$31.07
Animal Rope - 2.8 m long		\$29.29
Hay Rack Folding - 60cm square		\$35.11
BOS Calf Leg Splints		\$46.18
Frustrators	Plastic/Swing Arm	\$4.40/\$10.62
	Screw Clamp (S/M/L)	\$12.40
	Aesculap Metal	\$48.89
	Combination Bull Ring/Frustrator	\$19.51

Quickheat:

Thermocare animal warming pads (230 volt)	
400 x 500mm	\$60.00
450 x 750mm/450 x 1200mm	\$72.00/\$88.00
600 x 750mm/600 x 1200mm/600 x 1520mm	\$76.00/\$97.00/\$120.00

For calf shelters and sawdust for calf sheds see *Section 2.21.17*.

2.3.14 Feed and Nutrition

Milk Replacers

<i>Anlamb</i>	20 kg	\$115.56
<i>Denkavit</i>	10 kg	\$63.56

McMillan Stockfoods:

Calf Milk	20 kg	\$120.00
Foal Milk	2 kg	\$14.00
Promil	20 kg	\$60.00

Livestock Supplies (N.Z.) Ltd:

Daisyvite Calf Milk	\$90 per bag
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Technik Products: (PCL Industries Ltd)

Prem Calf Booster	2 kg/4 kg/10 kg	\$21.23/\$41.65/\$76.50
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Elanco Animal Health:

Rumensin Premix (Coccidiosis control and productivity enhancer for dairy and beef cattle)	\$260 per 20 kg bag
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Mineral/Nutritional Supplements (See also *Section 2.3.4* for metabolics)

Agrifeeds Limited:

Promag/Himag - cattle	250 kg drum	\$256.80
Calcium Enriched Molasses	250 kg drum	\$256.80
Molasses - Feed grade	250 kg drum	\$164.40
- Blackstrap	250 kg drum	\$175.20
Rumax - Cattle	250 kg drum	\$226.20
Copper Sulphate	1 tonne	\$2,058.00
Magnesium Sulphate/ Magnesium Chloride	1 tonne	\$718.80
Zinc - Heptahydrate	1 tonne	\$1,322.13
Sulphate - Monohydrate	1 tonne	\$1,680.00
Ferrous Sulphate	1 tonne	\$789.60
Sodium Bicarbonate	1 tonne	\$832.80
Palabind Powdered Molasses	1 tonne	\$1,119.60
Calcium Chloride	1 tonne	\$1,093.20
Zinc Oxide - Supazinc	1 tonne	\$3,924.00
Hyfat (99% palm oil, beaded)	1 tonne	\$1,826.40

Mono propylene glycol	250 kg	\$696.00
Magnesium oxide	1 tonne	\$678.00
Bichlor	1 tonne	\$1,918.80
Bolifor (mono dicalcium phosphate)	1 tonne	\$1,194.00

Availa Zn liquid	20 litre	\$331.10
Formula 5	100 ml	\$4.05
	1 litre	\$42.12
Vitamix ADE (<i>Bomac</i>)	300 g	\$48.40

Dominion Chemicals Ltd:

	Size	Price
Energio-Mag Injection	160 ml/500 ml	\$12.95/\$28.60
Garlic Powder/Granule	1 kg	\$9.90/\$10.20
Livamol	2 kg/10 kg	\$14.80/\$41.40
Molasses Blackstrap	5 kg/25 kg	\$9.50/\$33.50
Molasses Palabind Powder	25 kg	\$29.50
Seaweed (Meal)	25 kg	\$97.50

Elanco Animal Health:

Rumbul – Magnesium capsule	\$10.00 each
AllTrace – Trace element capsule	\$10.00 each

Fluid Fertilisers NZ Ltd:

Tracemol	5 litre/25 litre/100 litre/200 litre	\$40/\$160/\$575/\$995
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Livestock Supplies (N.Z.) Ltd:

Bentonite – Granular/Trubond (fine)	\$0.58 per kg
Berger fat	\$1.65 per kg
Bicarbonate of Soda	\$1.00 per kg
Bran	\$0.40 per kg
Calcium chloride	\$1.00 per kg
Chromium potassium sulphate	\$12.06 per kg
Copra meal	\$0.64 per kg
Cotton seed meal	\$0.70 per kg
Dextrose	\$2.50 per kg
Diamond V yeast	\$3.75 per kg
Dicalcium phosphate	\$1.25 per kg
Fish meal	\$61.25 per bag
Garlic powder	\$8.95 per kg
Manganese Sulphate (feed)	\$1.40 per kg
Meat meal	\$0.80 per kg
Molasses – Calcium enriched	\$0.92 per kg
Molasses – Liquid (over 100kg costs \$0.52 per kg)	\$0.57 per kg
Molasses – Moldri/Palabind	\$0.98 per kg/\$1.30 per kg
Mono Propylene Glycol	\$3.35 per kg

Monensin	\$18.95 per kg
Niacin	\$19.50 per kg
Pig Premix	\$28.00 per bag
Potassium iodate	\$54.60 per kg
Prime	\$2.72 per kg
Seaweed – Meal	\$4.45 per kg
Soda ash	\$1.56 per kg
Sugar	\$0.99 per kg
Vitamin A	\$95.00 per kg
Vitamin A.D.E.	\$46.30 per litre
Vitamin B2/Vitamin C	\$150 per kg/\$29.95 per kg
Vitamin D/Vitamin E	\$68.00 per kg/\$66.00 per kg

McMillan Stockfoods:

Product	Quantity	Price
Calcium	2 kg	\$4.00
Cider Vinegar/Organic	2 litres	\$11.00
Cider Vinegar/Garlic/Honey	2 litres	\$11.00
Electrolyte	1 kg / 2 kg	\$15.50 / \$23.50
Iron Tonic	2 litre / 5 litre	\$25.00 / \$50.00
Garlic	1 kg	\$8.00
Kelp	2 kg / 25 kg	\$11.50 / \$131.25
Linseed Oil	2 litre	\$12.00
Molasses (dried)	2 kg	\$4.50
Molasses (black strap)	4 litre / 20 litre	\$9.00 / \$30.00
Molasses (feed grade)	2 litre	\$5.00
Soya Oil	2 litre/20 litre (with own container)	\$6.50/\$40.00
Vitamins and minerals	4 kg/40 kg	\$8.00/\$70.00

Mark Bell Booth Ltd: Nutrimol

Colostrum Keeper.	5 litre/20 litre	\$23.65/\$56.55
Hi Energy for treatment and prevention of ketosis.		\$31.00 per 2 litre
		\$127.50 per 10 litre
		\$180.00 per 20 litre
Classic - A combination of 60 minerals and trace elements obtained from seaweed.		\$15.35 per litre
		\$56.00 per 5 litre
		\$210.00 per 20 litre

Dosatron – Inline water dispenser

- dispenses soluble products like Zinc, Mg, Salt, Molasses, Cu etc	\$1,100 to \$5,500
<i>Caramillo – Masking Agent</i>	
Flavouring to mask drenches and trough water.	
2 litre / 5 litre / 20 litre	\$23.23/\$53.25/\$177.00

Milking Cow Minerals:		Bag size	Price per bag
North and South Island	1 to 2 bags	40 kg	\$180.00
	3 to 24 bags	40 kg	\$170.00
	25 plus bags	40 kg	\$165.00
Delivered on-farm (South Island only)	3 to 24 bags	40 kg	\$165.00
	25 plus bags	40 kg	\$162.50
Dairy Heifer Minerals:			
North Island	2 to 3 bags	25 kg	\$53.80
	4 to 5 bags	25 kg	\$43.80
	6 to 11 bags	25 kg	\$40.00
	12 plus bags	25 kg	\$38.70
South Island	2 to 3 bags	25 kg	\$51.60
	4 to 5 bags	25 kg	\$41.60
	6 to 11 bags	25 kg	\$37.80
	12 plus bags	25 kg	\$36.50
Delivered on-farm (Sth Is. only)	4 to 11 bags	25 kg	\$37.80
	12 plus bags	25 kg	\$36.50

NRM Feeds (South Island):

Product	Price per Unit	Price per Tonne
Hi Protein Sheep Blocks 20kg	\$15.30	\$765.00
Multi Block 20kg	\$15.00	\$750.00
Deer Feed Block 20kg	\$17.60	\$880.00
Hi Protein Cattle blocks 20kg	\$15.30	\$765.00
Teric Bloat Block (single 15kg)	\$35.00	N/A
Teric Bloat Block (pallet 64x15kg)	\$33.00	\$2112.00(pallet)

Note: Prices include free delivery within 20kms of merchant - minimum 1 tonne.

Salt

Agrifeeds Ltd:

Coarse/Medium/Fine	1 tonne	\$324.00
Rock Salt	1 tonne	\$804.00

Dominion Chemicals Ltd:

Salt (Coarse/Medium/Fine)	25 kg	\$7.50/\$7.50/\$12.50
Red Rockies salt lick	2 x 10 kg	\$23.20
Red Baby Rockies Salt Lick	10 x 2 kg	\$29.50
Baby Rockies Salt Lick	10 x 2 kg	\$27.50
Rockies Pure Salt Licks	2 x 10 kg	\$19.60

Livestock Supplies (N.Z.) Ltd:

Cattle Salt Blocks	20 kg	\$14.25
Sheep Salt Blocks	5 kg/20 kg	\$4.00/\$13.50
Plain Salt Blocks	20 kg	\$11.00
Hi Mineral Salt Blocks	5 kg/20 kg	\$4.50/\$16.00

Ocean Lactomax Lick	40 kg	\$700.00
Ocean Thrift Sheep Lick	40 kg	\$565.00
Rock Salt	50 kg	\$460.00
Salt – Fine	per kg	\$0.50
Salt G12/G27	per kg	\$0.35/\$0.43

McMillan Stockfoods:

Mineral Salt Block	20 kg	\$21.00
Sulphos	20 kg	26.00
Little Lix		\$3.50
007		\$6.00
Fine Salt	5 kg / 25 kg	\$3.00 / \$12.00
Epsom Salt	2 kg	\$4.00
Rock Salt	1 kg / 50 kg	\$1.00 / \$30.00

Mark Bell Booth Ltd:

Loose Cattle Lick:		Bag size	Price per bag
North Island	1 to 2 bags	40 kg	\$70.00
	3 to 11 bags	40 kg	\$60.00
	12 to 25 bags	40 kg	\$54.00
South Island	1 to 2 bags	40 kg	\$70.00
	3 to 11 bags	40 kg	\$57.00
	12 to 25 bags	40 kg	\$54.00
Delivered on-farm	3 to 11 bags	40 kg	\$57.00
(South Island only)	12 plus bags	40 kg	\$54.00

Concentrates – Meal/Crumble/Pellet/Nut

Dairy and Calf Feeds

Harvey Farms: (North Island Feed Prices)

Dairy	Quantity	Price per tonne
Topcow maxum	25 kg/bulk	\$758.43/\$734.58
Topcow dairy	25 kg/bulk	\$684.50/\$591.48
Calves		
Topcalf cereal	25 kg	\$851.45
Topcalf 20	25 kg/bulk	\$808.52/\$772.74
Topcalf 16	25 kg/bulk	\$753.66/\$717.89
Armalcalf	25 kg/bulk	\$863.37/\$827.60

McMillan Stockfoods:

Product	Quantity	Price per unit
Dairy:		
Dairy Nuts	40 kg	\$27.00
Calves:		
Calf Crumble 17%/Calf Crumble 20%	40 kg	\$31.00/\$32.00
Calf Pellets 17%/Calf Pellets 20%	40 kg	\$30.00/\$31.00
Calf Muesli	40 kg	\$36.00

NRM Feeds Ltd: (South Island)

Product	Price per unit	Price per tonne
Dairy:		
NRG Pellets/Nuts - bulk	\$600	\$600
NRG Pellets/Nuts - 25/40kg	\$17.30/\$27.28	\$692.00/\$682.00
NRG Pellets/Nuts - bulk bag	\$632	\$632.00
Breakfeed Advantage Nuts/Pellets - 25kg	\$14.00	\$560.00
Breakfeed Advantage Nuts - bulk bag	\$518	\$518
Breakfeed Advantage Pellets - bulk bag	\$538	\$538.00
Breakfeed Advantage Nuts/Pellets - bulk	\$478	\$478.00
Calcigard Concentrate Nut 25kg	\$14.00	\$560
Calcigard Concentrate Pellet 40kg	\$22.00	\$550.00
Dairy Crumbles/Pellets (with magnesium) Bulk Bag	\$434.00	\$434.00
Dairy Crumbles/Pellets (with magnesium) Bulk	\$428.00	\$428.00
Golden Economy Multifeed Nuts 40kg	\$24.00	\$600.00
Steam Flake Dairy (with magnesium) Bulk Bag	\$516.00	\$516.00
Steam Flake Dairy (with magnesium) Bulk	\$510.00	\$510.00
NRG and Breakfeed Advantage are available with Rumensin or Magnesium or a combination of these additives. Each additive is an extra \$15 per tonne.		
Calves		
Moozlee Plus 25kg	\$19.05	\$762.00
Grow Up Plus Pellets	\$16.75 (25 kg)	\$670.00
Grow Up Finisher Pellets 25kg	\$16.25 (25 kg)	\$650.00
Ready Rumen 25kg	\$18.00	\$720.00

PCL Industries Ltd:

	Bag size	Price/bag	\$/tonne
Megacalf	25 kg	\$23.83	\$873.00
Hi-Pro Calf Pellets	25 kg	\$19.31	\$772.50
Premium Dairy Meal	25 kg	\$16.05	\$642.00
Premium Dairy Pellets	25 kg	\$16.80	\$672.00

Deer/Sheep/Beef and Goat Feeds*NRM Feeds Ltd: (South Island)*

Product	Price per unit	Price per tonne
Multifeed Nuts bulk	\$490.00	\$490.00
Multifeed Nuts 25kg	\$14.25	\$570.00
Multifeed Nuts bulk bag	\$528.00	\$528.00
Deer Weaner Nuts 25kg	\$14.75	\$590.00
Deer Weaner Nuts 40kg	\$23.20	\$580.00
Deer Conditioning Nuts 25kg	\$14.20	\$568.00
Deer Conditioning Nuts 40kg	\$22.32	\$558.00
Lactating Hind Nuts 25kg	\$15.12	\$605.00
Lactating Hind Nuts 40kg	\$23.80	\$595.00

McMillan Stockfoods:

Product	Quantity	Price
Alpaca Nuts	40 kg	\$28.00
Multi Nuts	10/40 kg	\$9.00/\$28.00
Sheep Nuts	40 kg	\$27.00

PCL Industries Ltd:

Milk Goat Pellets	25 kg	\$18.40 per bag	\$736.00 per tonne
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Horse Feeds*McMillan Stockfoods Ltd:*

Product	Quantity	Price
Broodmare	40 kg	\$33.00
Chaff (lucerne/oat)		\$22.00
Chaffage/Mixed Haylage	28 kg	\$21.50
Cool Feed	40 kg	\$29.00
Foal Mix	40 kg	\$34.00
Horse Pellets	10 kg / 40 kg	\$9.00 / \$28.00
Linseed Flake	10 kg	\$10.00
Multi Nuts	40 kg	\$28.00
Protein Mix (Grain Mix)	40 kg	\$31.00
Sport Horse	40 kg	\$32.00

NRM Feeds Ltd: (South Island)

Product	Price per unit	Price per tonne
Sweetfeed Sport 25 kg	\$18.40	\$736.00
Sweetfeed 25 kg	\$17.62	\$705.00
Sweetfeed 40 kg	\$27.80	\$695.00
Coolade 25 kg	\$17.85	\$714.00
Horse and Pony Pellets 25 kg	\$16.25	\$650.00
Horse and Pony Pellets 40 kg	\$24.80	\$620.00
Affinity 25 kg	\$16.00	\$640.00
Mare Balancer Nut 25 kg	\$19.25	\$770.00
Prepare 25 kg	\$22.75	\$910.00
Assett 25 kg	\$18.90	\$756.00
Equine Balancer 25kg	\$34.50	\$1380.00
KER Equi-Jewel 30kg	\$56.54	N/A
Favourite 25 kg	\$19.92	\$797.00
Favourite 40 kg	\$31.48	\$787.00
Racehorse Pellets 25 kg	\$15.75	\$630.00
Racehorse Pellets 40kg	\$24.80	\$620.00
Lite Brew 25 kg	\$16.00	\$640.00
Performa 25 kg	\$22.50	\$900.00
Stud Concentrate 25 kg	\$25.10	\$1004.00

Emu and Ostrich Feeds

McMillan Stockfoods Ltd:

Ostrich Starter Pellets/Crumble	40 kg	\$30.00/\$31.00
Ostrich Grower	40 kg	\$28.00
Ostrich Breeder	40 kg	\$27.00
Ostrich Maintenance	40 kg	\$26.00
Ostrich Budget	40 kg	\$24.00
Ostrich Breeder – HP	40 kg	\$29.00
Emu Starter Pellets/Crumble	40 kg	\$29.00/\$30.00
Emu Grower	40 kg	\$27.00
Emu Breeder	40 kg	\$28.00
Emu Maintenance	40 kg	\$26.00
Emu Budget	40 kg	\$24.00

Poultry Feeds and Premixes

McMillan Stockfoods:

Layer Mash	10kg/40 kg	\$10.00/\$29.00
Layer Pellets	10 kg/40 kg	\$10.50/\$30.00
Mussel Grit	10kg/25 kg	\$7.00/\$12.00
Oyster Grit	4 kg/10 kg/50 kg	\$4.50/\$9.00/\$35.00
Chick Starter	10kg/40 kg	\$10.00/\$31.00
Chick Grower Pellets/Crumble	40 kg	\$30.00/\$31.00
Broiler Grower/Crumble	40 kg	\$33.00/\$34.00
Wheat	10 kg/40 kg	\$8.00/\$25.00

NRM Feeds Ltd: (South Island)

Product	Price per unit	Price per tonne
Chick starter crumble 10/25 kg	\$8.36/\$19.15	\$836.00/\$766.00
Chick starter crumble 40 kg	\$30.24	\$756.00
Hi Lay Super Mash 10/25 kg	\$6.65/\$15.30	\$665.00/\$612.00
Hi Lay Super Mash 40 kg	\$24.08	\$602.00
Hi Lay Super Pellets 25/40 kg	\$15.55/\$24.48	\$622.00/\$612.00
Peck n Lay Gold Pellets 10/25kg	\$6.75/\$15.00	\$675.00/\$600.00
Peck n Lay Gold Mash 25kg	\$14.90	\$596.00
Meatbird Crumble 25kg	\$20.00	\$800.00
Meatbird Crumble 40kg	\$31.60	\$790.00

Pig Rations

NRM Feeds Ltd: (South Island)

Product	Price per unit	Price per tonne
Pig Tucker Plus Nuts/Pellets 25kg	\$15.55	\$622.00

McMillan Stockfoods: * Pellets/crumble are available at \$1.00/\$2.00 extra per bag.

Pig Breeder Meal	40 kg	\$28.00
Pig Grower/Weaner Meal	40 kg	\$30.00
Meat and Bone Meal	50 kg	\$36.00

Protein Prices by Type and Region

Protein Type	North Island (\$ per tonne)	South Island (\$ per tonne)
Meat and Bone	\$500 to \$550	\$500 to \$550
Blood Meal	\$900 to \$1,095	\$950 to \$1,095
Fishmeal	\$1,595 to \$1,800	\$1,595 to \$1,690
Skim Milk Powder	\$3,000	\$3,050
Promil	\$1,950	-
Skim Milk Blend	\$1,950	\$1,760 to \$1,950
Extra Soya Meal	\$680 to \$850	\$730 to \$850
Full Fat Soya	\$950 to \$1,150	\$950 to \$980
Conpro	\$1,350	-
Soya Oil (\$/drum)	\$280 to \$350	\$290 to \$335
Tallow	\$450 to \$600	\$400
Lysine (\$/kg)	\$3.95 to \$4.30	\$4.30
Methionine	\$5.85 to \$6.20	\$5.80 to \$5.85

Source: *Pork Outlook, February 2002.*

Feed Grains

NRM Feeds Ltd: (South Island)

Product	Price per unit	Price per tonne
Feedwheat 10/25kg	\$7.08/\$15.62	\$708.00/\$625.00
Feedwheat 40kg	\$24.60	\$615.00
Whole Barley 10/25 kg	\$6.60/\$14.50	\$660.00/\$580.00
Whole Barley 40 kg	\$22.80	\$570.00
Barley Meal 25/40kg	\$15.00/\$23.60	\$600.00/\$590.00
Steam Flaked Maize 25kg	\$15.80	\$632.00
Oyster Grit 10kg	\$7.55	N/A

McMillan Stockfoods Ltd:

Barley/ Barley (crushed/meal)	40 kg	\$26.00/\$27.00
Maize	40 kg	\$29.00
Oats/ Oats – crushed	40 kg	\$28.00/\$29.00
Peas – Kibbled	40 kg	\$27.00
Soya Bean Meal (Full Fat)	10 kg/40 kg	\$17.00/\$54.00

Dog Feeds

McMillan Stockfoods:

McMillan Dog Nuts	10 kg/40 kg	\$11.50/\$35.00
Dog Rolls	2 kg	\$3.00
Tux Dog Biscuits	\$7.5 kg/40 kg	\$16.50/\$76.00

Rabbit Feeds

McMillan Stockfoods:

Rabbit Pellets	10 kg/40 kg	\$9.50/\$29.00
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NRM Feeds Ltd (South Island):

Product	Price per unit	Price per tonne
Rabbit Pellets + Cyco 10/25kg	\$7.10/\$16.12	\$710.00/\$645.00
Rabbit Pellets + Cyco 40kg	\$25.40	\$635.00
Rabbit Finisher Pellets 10/25kg	\$6.80/\$15.38	\$680.00/\$615.00
Rabbit Finisher Pellets 40kg	\$24.20	\$605.00

Hay and Straw

(For contract hay baling see *Section 2.4.1.*)

Price depends on area, season and quality. Spring/Summer/Autumn 2001/02 prices for average/good quality bales were approximately as follows:

		Conventional	Big Round Bale (10 to 15 bale equivalent)
Canterbury			
Hay:	Meadow	\$4.00 to \$5.00	\$40 to \$50 ²
	Lucerne	\$5.00 to \$8.00	\$50 to \$80 ²
Straw:	Ryegrass	\$2.50 to \$3.00	\$25 to \$30 ²
	Barley	\$1.80 to \$2.00	\$15 to \$20 ²
Silage:			Per tonne
	Oat and Tares		\$120.00
	Grass		\$100.00
	Lucerne		\$130.00
Hawkes Bay			
Hay:	Meadow	\$3.00 to \$4.00	\$45 ¹
	Lucerne	\$6.00 to \$7.00	
Taranaki			
Hay:	Behind Baler	\$3.50 to \$5.00	\$55 to \$75 ¹
	Standing	\$2.00 to \$3.00	
Silage:	Baled		\$50 to \$75 ²
Waikato			
Hay:	Pasture	\$5.00	\$40 to \$65 ²
	Lucerne		\$90 ²
Silage:	Delivered	21c to 22c per kg DM	\$65 per round bale
	Standing	17c to 19c per kg DM	
Straw	Barley		\$200 per tonne
Southland			
Hay:	Meadow	\$3.00 to \$3.60	\$40 to \$60
Silage:	Standing	12c to 15c per kg DM	-

Note: ¹ 15 small bale equivalents. ² 10 small bale equivalents

Grazing Fees

New Zealand Grazing Co. Ltd. are represented in the Northland, Bay of Plenty, Waikato, Taranaki and Canterbury regions. They give the following grazing fees.

Calves \$4.00 to \$4.20 per head per week
Up to \$5.20 for good quality weaner grazing with full monitoring, regular weighing, detailed weigh reports, animal health and facial eczema control.

Heifers \$6.00 to \$6.50 per head per week
Up to \$7.70 with full monitoring, regular weighing, detailed weigh reports, animal health, facial eczema control, fully vetted bulls, weight gain type agreement with guaranteed end weight (refund per kg LWG below target).
Cost of mating (\$15.00) and set up fee (\$10.00) extra.

Payment for grazing varies according to the class and age of livestock, the time of year, seasonal conditions and the district. When comparing grazing arrangements any additional costs of bulls, freight, animal health, weighing and management need to be identified. Rates for 2001/02 are approximately:

Dairy Cattle

Calves (weaning to May)

Bay of Plenty	\$3.50 to \$4.50 per head per week
Taranaki	\$3.50 to \$6.50 per head per week
Canterbury	\$3.00 to 4.50 per head per week
Waikato	\$3.00 to \$4.50 per head per week
Hawkes Bay	\$2.00 to \$3.00 per head per week expected for 2002
Southland	January to March \$3.50 per week March to May \$4.50 per week

Yearling heifers (May to May)

Bay of Plenty	\$5.50 to \$6.50 per head per week
Waikato	\$5.00 to \$6.00 per head per week
Hawkes Bay	\$5.00 to \$7.00 per head per week expected for 2002
Taranaki	\$5.00 to \$7.00 per head per week
Canterbury	\$4.50 per week plus bonus payment of 70 c per kg over target Or \$6.00 to \$7.00 per head per week
Southland	\$6.00 to \$6.50 per head per week

Note: When comparing grazing arrangements, any additional costs of bulls, freight, animal health, weighing arrangements and management need to be identified.

Cows (winter)

Bay of Plenty	\$12.00 to \$17.00 per head per week
Waikato	\$12.00 to \$15.00 per head per week
Taranaki	\$12.00 to \$16.00 per head per week plus freight
Southland	\$16.00 to \$18.00 per head per week
Canterbury	\$8.00 to \$16.00 per head per week
Hawkes Bay	\$10.00 to \$18.00 per head per week in 2001 \$10.00 to \$12.00 per head per week expected for 2002

Sheep and Beef (cost per head per week)

	Canterbury	Southland
Sheep		
- summer - ewes	20 to 50 cents	25 to 75 cents
- winter - hoggets	50 to 60 cents	\$1.00 to \$1.50
- ewes	50 to 70 cents	\$1.00 to \$1.50

Breeding Cows	\$3 to \$6	\$6 to \$7
Dry Cattle - weaners	\$2 to \$5	\$3 to \$3.50
- steers	\$3 to \$5	\$3 to \$7

Deer (Southland)

Hinds - Red/Wapiti	\$2.50 to \$3.00 per head per week
Stags - Red/Wapiti	\$3.00 to \$5.00 per head per week
Weaners - Red/Wapiti	\$1.50 to \$2.50 per head per week

When comparing grazing arrangements any additional costs of bulls, freight, animal health, weighing and management need to be identified.

Maize Silage-Buying In

Bay of Plenty farmers can expect 22 to 25c per kg of dry matter in coastal areas and 24 to 28c in the Central Plateau due to extra cartage.

Waikato farmers are paying about 18 to 22 ¢ per kg of dry matter landed in the stack.

Taranaki farmers can expect to pay:

20 to 23 cents/kgDM standing

25 to 30 cents/kgDM covered in pit

2.3.15 Wool and Shearing Expenses

	(per su)
Northland	\$4.54
Waikato/Bay of Plenty Intensive	\$5.15
Central North Island Hill Country	\$5.85
Gisborne Large Hill Country	\$4.97
Hawkes Bay/Wairarapa Summer Dry	\$5.20
Hawkes Bay/Wairarapa Summer Moist	\$5.04
Manawatu/Rangatikei Intensive	\$4.75
South Island Merino	\$5.52
Canterbury/Marlborough Hill Country	\$3.15
Canterbury/Marlborough Breeding and Finishing	\$3.99
Otago Dry Hill	\$3.96
Southland/South Otago Hill Country	\$3.93
Southland/South Otago Intensive	\$4.39
National	\$4.61

Source: *Sheep and Beef Monitoring Report - July 2001*

Shearing Rates

Approximate range only. Unless stated, travel has not been incorporated into these rates.

North Island: (per 100 sheep)

Contract Rates:	Manawatu	Wairarapa (incl. travel)	Wanganui
Full Wool	\$235	\$230 to \$235	\$230
Lambs	\$215	\$210 to \$220	\$205
Second shear ewes	\$235	\$220 to \$225	\$215
Full belly crutch, flank & wig		\$120	

Half belly crutch, flank & wig		\$108	
Full belly flank crutch		\$144	
Full belly crutch & wig		\$106	
Full belly crutch	\$85	\$95 to \$102	\$100
Half belly flank crutch		\$102	
Half belly crutch & wig		\$96	
Half belly crutch	80	\$85 to \$92	\$90
Fully crutch wig		\$84	
Full crutch wig & pizzle		\$94	
Full crutch only		\$82	
Tail crutch wig		\$76	
Tail crutch wig & pizzle		\$80	
Tail crutch only	\$50 to 55	\$60 to \$68	\$65

Open Shearing Rates:

Full Wool	\$125	\$130	-
Crutching	-	-	-
Second shear ewes	-	\$130	-
Half belly crutch	-	-	-
Lambs	-	\$115 to \$120	-

South Island: (per 100 sheep)

Contract Rates:

	Canterbury	Central Otago	Southland
Full Wool ewes - summer	\$240	\$230	\$250*
- cover comb	\$250	\$245	\$260*
Lambs	\$225	\$220	\$240*
Merino ewes	\$320	\$345	\$270*
Merino wethers	\$375	\$400	\$300*
Full belly crutch	\$95	\$110	\$125*
Half belly crutch	\$85	-	\$125*
Buttonhole crutch	\$70	\$70	\$90*

Open Shearing Rates:

Full wool	\$143*	-	\$230
Lambs	\$130*	-	\$220
Full belly crutch	\$71.50	-	\$110
Wool handler rate	\$19.00	-	-
Presser	\$19.50	-	-

* Includes meals and travel

Blade Shearing (Canterbury) per 100 sheep

Open:	Belly Crutched	\$170
Semi-Contract:	Belly Crutched	\$320
Full-Contract:	Belly Crutched	\$350

Other Shearing Costs are as follows: (Open) Canterbury

Shed hand rate	\$16.00 to \$18.00 per hour
Presser rate	up to \$18.00 per hour
Classing rate	\$40.00 to \$44.00 per 100

Fibre Handling and Classing Charges – see Section 2.10.3 and 2.10.4**Plant***Wooltech Industries Ltd:*

Lister shearing plant	approximately \$1,235
Sunbeam/Heiniger Handpieces	approximately \$620

Williams & Kettle Ltd:

Sunbeam Supergrip Handpiece/Heiniger Omega Handpiece	\$666.67
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Combs and Cutters*Wrightsons:*

Combs:	Price per unit
Super pacer/Super flight/Super nova	\$39.20/\$37.51/\$39.20
Flight wide comb 97mm	\$38.67
In flight quick shear/In flight 94mm	\$39.47/\$38.67
Heiniger charger/quasar (MB 4mm – LB 6mm)	\$37.24
Force 12 hurricane/tornado	\$39.20
Supersonic	\$39.20
Cutters: Super AAA/Arrow	\$7.47/\$7.29

Williams & Kettle Ltd:

Sunbeam Combs	(average) \$38.18
Sunbeam Super Cover Comb	\$47.11
Heiniger Comb	(average) \$36.40
Sunbeam Super AAA Cutter/ Heiniger Jet Cutter	\$7.91
Sunbeam Super Flight	\$38.22
Sunbeam Force 12 Tornado and Hurricane	\$33.53

Electric Grinders*Wooltech Industries Ltd:*

Sunbeam Electric Grinder	approximately \$1,465
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Emery Papers*Leader Products (NZ):*

Shearers Emery – fine /coarse	\$5.33
Shearers Adhesive (standard or latex) 250ml/500ml/1 litre	\$6.93/\$10.22/\$19.56

Williams & Kettle Ltd:

Heiniger/Ramshead Emeries	\$5.29/\$5.87
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Woolpresses

Lyco NZ Ltd:

Power Tech 'S' DOMINATOR 220v 3 phase/5hp 3 phase	\$13,085
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Wooltech Industries Ltd:

Average wool press	\$13,000 to \$13,500
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Wool Tables

Wooltech Industries Ltd:

4 m x 2 m to 6 m x 2 m	\$700 to \$1,100
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Wool Bale/Bag Trolleys

Lyco NZ Ltd:

Bale/Bag Trolley	\$325
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Weighing System

Wooltech Industries Ltd:

Average weighing system with 2 loadbars and an indicator	\$1,500
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TruTest Scales Eziway 2 + GP loadbar	\$1,480
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Other Woolshed Expenses

Tally counters - 4 digit	\$18.22
- Heiniger	\$14.44
Woolpacks - jute capless	\$12.09
- nylon capless	\$13.29

Leader Products (NZ):

Footrot Shears – standard or heavy duty	\$26.67/\$99.56
5 inch/6 inch/7 inch Dagging/Lamb/Sheep shear	\$41.78/\$41.78/\$65.78
3 inch Mini dagging shear with holster	\$34.67
Left handed sheep/mulesing shear	\$39.11/\$84.44
Mulesing shears – 5 inch Gurney or BW converted	\$59.56/\$80.00
Leader woolbale stencils – set of A-M, set of N-Z, set of 0-9	\$25.78 per set
Stencil ink 500ml /1litre	\$13.07/\$24.00
Aerosol stencil spray	\$11.11
Taylor's stencil block	\$4.53
Woolbale fasteners 200/500 pack	\$12.44/\$28.44
Woolbale hooks – double/single prong (steel)	\$24.89/\$19.11
Woolshed Broom 8 tie (<i>Cane & Millet</i>)	\$30.22
Wool sweep - telescopic	\$33.78
- wooden handle	\$19.56

Shoof International: (Prices include delivery on orders over \$50.00)

Hand Shears - 24 cm to 34 cm	\$16.84 to \$22.18
- Hauptner (29cm straight/curved)	\$44.40/\$49.73

	- Quality (25cm dagging/29cm straight)	\$57.73/\$66.62
Sharpener	- complete/replacement stone	\$24.84/\$10.62

Williams & Kettle Ltd:

Woolshed broom	\$17.73
Bale clips, pack of 500, Maspro	\$17.73
Tally counter	\$15.55
Sunbeam Latex, 250ml	\$4.40
Moccasins	\$31.11
Pendulum – Ellery	\$97.78

Fibre Testing Charges

S.G.S. Wool Testing Services: (Timaru and Wellington) Fees for mid side samples

Standard Service

Number of Samples	Yield and Micron	OFDA Micron only
0 to 199	\$2.25	\$0.95
200 to 499	\$2.05	\$0.95
500 plus	\$1.50	\$0.90
Minimum Fee - \$25.00. Histogram - \$0.50 extra per sample. Curve - \$0.50 per sample.		

Alpaca Testing

Micron with Histogram per sample	\$3.25
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Sale lot Testing (IWTO Certification)

Yield, Micron, and Colour \$56.00 excludes sampling costs.

Full range of IWTO Certified and or Guidance Reports available - POA

Wool Measurement Service – Lincoln University:

	Cost per sample			
	Number of Samples			
	1 to 99	100-249	250-499	> 500
Yield and Micron	\$5.50	\$4.50	\$3.75	\$3.50
Micron ONLY	\$3.50	\$3.25	\$3.00	\$2.75
Yield ONLY	\$4.25	\$4.00	\$3.75	-
Predictive Colour	\$3.00	\$3.00	\$2.50	-
Loose Wool Bulk (with any scoured test \$3.60)	\$6.50	-	-	-
Scoured Colour (with any scoured test \$5.50)	\$8.25	-	-	-
Medullation Score (with any scoured test \$1.10)	\$3.80	-	-	-
Staple Length	\$2.50	-	-	-
Staple Strength	\$7.00	-	-	-

Additional Tests using ODFA (Optical Fibre Diameter Analyser)

Medullation %	\$1.25*
Curvature	\$0.60*
Spinning Fineness	\$0.60*
Histograms (distribution graphs)	\$0.50



SGS Wool Testing Services

ISO Guide 25 accredited laboratory services for:

- Fleece testing
- IWTO certification
 - yield & micron
 - length & strength
- Additional measurements
 - colour
 - CV diameter
 - bulk
- Length after carding
 - scoured certification
 - greasy LAC
- condition testing
- medullation
- scoured residuals
- pesticide residues
- card waste

FLEECE TESTING SERVICES

Marine Parade, PO Box 349, Timaru, Tel: (03) 688-8813, Fax: (03) 684-8643

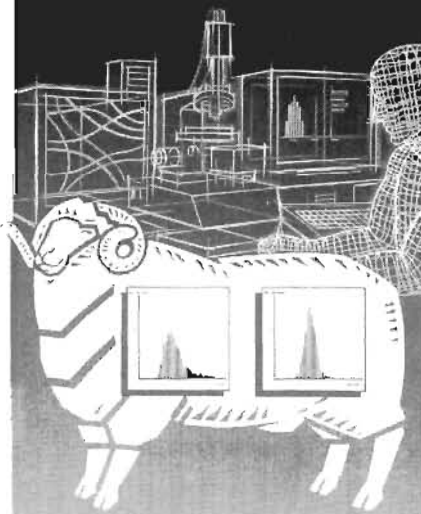
CENTRAL LABORATORY

48 Kemp Street, Kilbirnie, PO Box 15062, Wellington, Tel: (04)387-8565, Fax: (04) 387-8651, eMail: sgswtswl@xtra.co.nz



The SGS Group has been established for over 100 years. It is the world's largest independent quality and inspection assurance company, operating in over 140 countries, with more than 270 laboratories, and employing over 35,000 staff.

TODAY'S TECHNOLOGY TEAM FOR THE WOOL CLIPS OF TOMORROW



Additional Data Analysis	\$25 per hour
Speciality Fibre Measurement and other tests – please enquire	
Minimum charge per invoice is \$25	
Data on disks \$10.00 (\$5.00 if own disk supplied)	
Appraisal and comment of greasy samples	\$0.50 per sample

*These prices are in addition to micron

Celentis Analytical Animal Fibre Measurement (Invermay Research Centre):

Wool

OFDA Fibre Diameter Only	\$1.50
OFDA Fibre Diameter, Full Statistics and histograms	\$1.75
OFDA Fibre Diameter and Washing Yield	\$2.50
OFDA Fibre Diameter and Fibre Curvature	\$3.50
OFDA Fibre Diameter, Fibre Curvature and Opacity	\$4.50
OFDA Fibre Diameter, Washing Yield and Colour	\$11.00
OFDA Fibre Diameter, Washing Yield, Colour and FC and FO	\$12.00
OFDA Fibre Diameter, Washing Yield and Corebulk	\$17.50
Washing Yield and Colour	\$7.00
Full test including all of the above	\$25.00

Mohair

OFDA Fibre Diameter Only	\$5.35
OFDA Fibre Diameter, Medullation and Kemp	\$16.00
Medullation and Kemp	\$10.70
Scoured Yield	\$3.60
OFDA Fibre Diameter and Scoured Yield	\$9.00
OFDA Fibre Diameter, Medullation, Kemp and Scoured Yield	\$25.00
OFDA FD, Medullation, Kemp, Staple length, Scoured Yield.	\$27.00

Cashmere

OFDA fibre diameter only	\$5.35
OFDA fibre diameter and down yield	\$24.00
Down yield only	\$18.00
OFDA fibre diameter, down yield and scoured yield	\$26.50

2.3.16 Stock Management

Lambing Equipment

Shoof International: (Prices include delivery on orders over \$50.00)

Lamb/kid teats	\$1.33 to \$5.78
Roslam lamb/fawn reviver (stomach feeder)	\$15.96/\$24.45
Stomach feeder (lamb/kid)	\$8.84
Non-vac Bottle	\$10.62
Lamb Feeding Bucket – 6 teats or 6 screw-on teats	\$26.62/\$44.40
Lamb Feeding Station – five 1 litre compartments	\$159.11
Rope Slimline 1m length - 6mm braided polypropylene	\$13.29
Aid Rubber Sling - 70cm length	\$10.62

Aid String Snare	- plastic/nylon, 37cm	\$17.73
Bovivet/Genia Ewe Vaginal Tape	- 4mm x 5m/2.5mm x 5m	\$114.67/\$20.00
Vaginal Tape Needles	- 15cm/20cm	\$17.73 to \$49.55
Ewe bearing retainer	- complete with tie tapes	\$9.73 per 4 pack
Ewe Vaginal Prolapse Pin	- 7.5cm with 4cm clear shank	\$5.29 per 5 pack
Kea shepherds crook, 83cm to 140cm		\$17.73 to \$22.18
Macwells Fostering Oil, 40ml		\$15.95

Leader Products (NZ):

Shepherd's crooks, short leg/long leg	\$38.22/\$43.56
Shepherd's crook, leg and neck combination	\$47.11
Sheep cuff	\$40.00
Sheep immobilizer	\$21.33
Lambar teats/Lamb bottle teats	\$1.15/\$1.70

Tailing and Marking Requisites

Lycio N.Z. Ltd:

Lamb Marking Cradles:	
- Holdmaster cradle single	\$215
- Rollamaster standard model/Rollamaster contractor model	\$740/\$840

Electro-Tek Engineering:

Earmarkers:	Sheep	Cattle
	\$86.25 to \$109.25	\$109.25 to \$120.75
Double Cuts	from 155.25	from \$166.75
Double Agemarker	\$126.50	
Johne's Earmarker	\$109.25	

Shoof International: (Prices include delivery on orders over \$50.00)

Ear Notchers	Small/ medium	\$26.62/88.00
	Large V or U	\$115.51/\$137.78
Rubber rings	100/500/2000	\$3.20/\$11.11/\$46.44
Ring Applicator Plastic		\$13.29
Ring Applicator	Economy/Quality	\$26.62/\$62.18
Rings Dispenser		\$176.89

Leader Products (NZ):

Earnotching Pliers for sheep (18 Designs)	\$187.56
Earmarking Pliers for sheep/cattle – registered designs:	
Single/combination sheep	\$230.22/\$358.22
Single/combination cattle	\$253.33/\$380.44
HGP Earnotching Plier	\$197.78
Pig "V" Earnotching Pliers	\$32.89
Small Earnotching Pliers – various designs	\$40.89
Large/Medium "U"/"V" Pliers	\$56.89 to \$88.89
Marking Ring Applicator	\$24.53

Allflex N.Z. Limited:

The tamperproof female tag (front tag) is the official piece of the set and always carries the official AHB Markings. The official female tag is always yellow and must be applied to the front of the ear. All female tags are yellow and tamperproof.

Tag description	Acronym	\$
Primary or secondary devices:		
Double med yellow 1 set	DMY	\$1.69
Double med yellow 2 sets	DMY x 2	\$3.07
Double med 1 set & double button yellow 1 set	DM/DBY	\$2.11
Lg female med male yellow 1 set	MLY	\$1.92
Lg female med male yellow 2 sets	MLY x 2	\$3.52
Lg female med male 1 set & double button yellow 1 set	ML/DBY	\$2.33
Double lg yellow 1 set	DLY	\$2.12
Double lg yellow 2 sets	DLY x 2	\$3.93
Double lg 1 set & double button yellow 1 set	DL/DBY	\$2.53
Maxi female lg male yellow 1 set	XLY	\$2.32
Maxi female lg male yellow 2 sets	XLY x 2	\$4.33
Maxi female lg male 1 set & double button yellow 1 set	XL/DBY	\$2.73
Lg female button male yellow 1 set	LBY	\$1.60
Lg female button male yellow 2 sets	LBY x 2	\$2.88
Lg female button male yellow 1 set & double button yellow 1 set	LB/DBY	\$2.01
Maxi female button male yellow 1 set	XBY	\$1.79
Maxi female button male yellow 2 sets	XBY x 2	\$3.27
Maxi female button male yellow 1 set & double button yellow 1 set	XB/DBY	\$2.20
Med female button male yellow 1 set	MBY	\$1.19
Med female button male yellow 2 sets	MBY x 2	\$2.06
Med female button male 1 set & double button yellow 1 set	MB/DBY	\$1.60
Secondary only: button female button male yellow 1 set	DBY	\$0.58
Direct to slaughter: Hermatag one piece yellow	Hermatag	\$0.58
Panel Tags: (for numbered or named add 27c per tag)		\$
Ovina blank male/female		\$0.39
Small blank male/female/ Medium blank male/female		\$0.52
Large blank male/female		\$0.69
Maxi blank female / Super Maxi blank female		\$0.88/\$1.17
Tamperproof medium female/ large female / maxi female		\$0.51/\$0.69/\$0.88
Non Panel Tags: (for numbered or named add 9c per tag)		\$
Button blank male/female / Mini blank male/female		\$0.41
Brass tag blank female		\$0.43
Nickel tag blank female		\$0.64
Flexitag tag blank female / Flock tag blank female		\$0.21
Hermatag blank female		\$0.75
Racemaster blank female / Rototag blank female		\$0.31/\$0.23
Tamperproof button female		\$0.44

Tags are available blank to up to two rows on both sides stamped. No set up fee for stamping of tags. Colours: Yellow, Red, Orange, Blue, Green, White, Purple, Pink

Shoof International: (Prices include delivery on orders over \$50.00)

Leg Straps	'treated', 'dump', 'dry cow' or 'caution'	\$5.78 each
Leg Strap Eurofarm	Urethane leg straps, blank	\$4.22 each
Leg Straps Weekdays	Set of 7 plastic leg straps	\$31.06
Leg Bands	10 pack (one colour or mixed)	\$17.77/\$22.18
Leg Band Dump Milk	10 pack/100 pack	\$15.95/\$142.22
Leg Mark-it	Fluoro colours	\$2.44 each
Leg and tail tape	9 m roll, polyethylene coated cloth	\$4.31

Ear Tag Applicators and Accessories

Leader Products:

Feeder Tag Applicator	\$70.22
Leader Flexible Tag Applicator	\$26.67
Leadermatic Applicator – Sheep tags	\$62.22
Standard Leader Applicator	\$45.33
Multitag Applicator	\$24.00
Swivel Tag Applicator	\$27.55
Birth Tag Applicator	\$29.33

Raddles and Markers

Sprayline Aerosol Marker – 400 ml can (<i>Donaghys</i>)	\$8.22
Stick Raddle (<i>Donaghys</i>)	\$1.33 per stick

Shoof International: (Prices include delivery on orders over \$50.00)

Aerosol Cull Cow Paint (425ml)	\$9.73
Spray Writer – 6 fluoro colours (425ml)	\$9.11
Paintstik – All Weather or Rotastik	\$2.89 to \$4.22
Paint Stik Holder – aluminium or plastic	\$14.71/\$32.76
Tail Paint Brush – 38mm/50mm	\$2.22/\$2.62

Leader Products:

Stock marking crayons	- Rotastick	\$2.58
	- All weather paint stick	\$3.29
	- Taylors dry raddles	\$4.36
Pig marking ink aerosol		\$10.67
Leader stock mark spray		\$7.29
Heat paint		\$20.44

Brands and Tattoos

Shoof International Ltd: (Prices include delivery on orders over \$50.00)

Standard/Standard Economy	4 x 10mm digits	\$155.56/\$147.49
Revolving Head/Rotary	4 x 10mm digits	\$208.89/\$532.44
Small Animal/Pet	4 to 6 x 8mm digits	\$155.56/\$146.67
Tattoo Digits	set 0-9	\$52.44
Tattoo Digits	set A-Z	\$132.44

Tattoo Ink	28 g/140 g tube, black or green	\$7.56 to \$34.89
	85 g pot, black	\$14.18
	black or green roll-on	\$9.73/\$13.29
Freeze Branding (0 to 8 set)	51 mm/ 76 mm/102 mm	\$328.00/\$395.55/\$466.67
Brandabull©™	Complete set (dry-ice gun, delivery hose, manual, organiser and 0-9 digit set)	\$706.67
Pigs:		
Tattoo Hammer standard/deluxe		\$88.00/\$111.11
Digits	Set A-Z, 0-9	\$10.00
Ink Pad and tin	12 cm diameter	\$16.84
Neoprene ink pad		\$77.78
Black ink pot	700 g	\$50.35
Ketchum Rotary Tattoo		\$665.78

Leader Products (NZ):

Rotary tattoo outfit		\$449.78
Customised letters		\$30.22
Standard tattoo		\$125.33
Revolving head tattoo		\$170.67
Baby pet tattoo (4 div or 6 div)		\$110.20
Pig body striker (3 to 6 div)		\$87.11 to \$98.67
Pig striker – single digits numerals/single numeral letters		\$15.11/\$14.67
Freeze branding irons (0 to 9) - 50mm to 100mm		\$328.00 to \$455.11
Fire brands (0 to 9) - 50mm to 100mm		\$394.67 to \$448.00
Ram horn brands (0 to 9) - 12mm to 25mm		\$360.00 to \$380.44
Sheep paint brands (0 to 9) – 63mm to 100mm		\$127.11 to \$255.11
Tattoo ink – green 125ml to 1 litre		\$8.00 to \$22.22
Tattoo ink – black 125ml to 5 litre		\$8.00 to \$61.33
Tattoo paste 50g (black, green, red, white)		\$9.07
Tattoo paste 700g (black, green, white)		\$75.56 to \$88.00
Pig marking ink 5 litre		\$77.33

De-Horning

Electro-tek Engineering Ltd:

Yearling de-horners (blades \$49, handle \$14.65)	\$240.00
Manual calf de-horner	\$32.30
Scully Junior (blades \$82.30, handle \$14.65)	\$264.50
Keystone Dehorner (blades \$112.25, handle \$34.00)	\$284.00
Gas LPG Gasmate (head \$37.50)	\$184.00

Leader Products:

Barnes Dehorner small/large/knuckle saver	\$58.67/\$81.78/\$86.22
SuperScoop Dehorner	\$199.11
Ram Dehorner	\$350.22
Leader Hodge Dehorner	\$430.22
Forrester Tipping Dehorner – small/large	\$430.22/\$460.44

Keystone Dehorner - Junior convex/large convex	\$295.11/\$328.89
Keystone Dehorner – improved	\$338.67
Electric Dehorner - 240 volt/12 volt	\$150.22/\$135.11
Butane Gas Dehorner	\$265.78
Gas (LPG) Dehorning Iron	\$220.44

Shoof International: (Prices include delivery on orders over \$50.00)

Keystone Heavy Duty	V shaped jaws, 9cm opening, 8kg, 115cm	\$400.00
Keystone Large Convex	Parrot beak jaw, 6.3cm opening, 7.5kg, 104cm	\$400.00
Keystone Small Convex	For younger stock, 4.5cm opening, 2.7 kg, 79cm	\$346.67
Concave Blade Dehorner	20mm concave, 58cm to 78cm	\$354.67 to \$431.11
Yearling Concave	15mm concave, 2.6 kg, 56cm	\$354.67
Dehorner Wire Saw Kruuse		\$15.56/\$22.22
Dehorner Wire Saw Bridle	50cm, can be used with dehorning wire handles	\$8.84
Keystone Dehorning Packing (25 pack)		\$44.40

Hoofcutting

Electro-tek Engineering Ltd:

Hoofcutter double action	\$105.75
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Shoof International Ltd: (Prices include delivery on orders over \$50.00)

Hoof Trimmers:		
Double Action – Economy/Quality		\$111.11/\$150.22
Blades and screws for double action economy and quality		\$39.95/\$40.00
Double Action Lightweight		\$155.55
Hoof Knives:		
Plain	s/edge or d/edge, LH or RH	\$9.73
Plain Set	6 specialist blades in a tidy zip pouch	\$70.22
Stainless Steel	s/edge, LH or RH	\$27.78
Aesculap/Genia		\$29.29 to \$48.89
Genia Extra Fine/Farrier	LH or RH	\$62.18
Genia Eye Loop	small/large	\$97.73
European Knife/Paring Knife		\$9.73/\$11.51
Eye Loop Knife/Quittor Knife		\$15.96/\$13.00
Hoof Knife Sharpeners:		
Diamond Sharpener Pen Style		\$17.73
Sharpening Stone	economy/standard/Indiga	\$8.84/\$21.29/\$35.33
Sharpening Kit	2 piece	\$32.84
Hoof Rasps:		
Stainless Steel/Carbon Steel	straight or curved	\$35.51/\$26.62
Carbon Steel Heavy	plain or with handle	\$31.11/\$34.67
Short Handle	concave blade	\$35.51
Hoof Test Pliers:		
Economy/Quality	33cm S/Steel/30cm Nickel Plating	\$39.78/\$123.56

Cattle Castrators

Shoof International Ltd: (Prices include delivery on orders over \$50.00)

Verboczy Triple Crush – “Standard” / “Aescupal”	\$200.00/\$341.24
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Leader Products:

Genuine Burdizzo Castrators – 23cm to 49cm	\$256.89 to \$550.22
Standard Bloodless Castrators – 33cm to 49cm	\$168.00 to \$196.44
Triple Crush Emasculator	\$136.89

Bull Rings and Leads

Leader Products:

Heavy Duty Bull Holder with rope/chain	\$25.78/\$32.00
Show Leads (Spring Lock/Brass Auto/Aluminum Auto)	\$24.00/\$20.00/\$16.00
Bull Nose Punch	\$69.33
Bull Ring Applicator	\$32.89
Hiatts Copper Bull Rings 2 ½ inch to 3 inch	\$17.78 to \$24.00
Leader S/Steel Bull Rings 2 ¾ inch to 3 inch	\$15.02 to \$16.00
Leader Copper Bull Rings 2 ½ inch to 3 inch	\$9.07 to \$10.04
Nylon Wizz Bull Rings 2 ¾ inch	\$7.82

Shoof International: (Prices include delivery on orders over \$50.00)

Bull Rings		
Bronze Wagner USA	S/M/L/Dairy	\$19.11/\$20.40/33.33/\$19.11
Swivel Stainless	Small/large	\$15.07/\$22.18
Hinged Stainless	Small/large	\$15.95/\$17.73
Bull ring applicators		
Economy/Quality		\$26.62/\$111.11
Swivel Rings Applicator		\$176.89
Bull Nose Punch	Standard/Quality	\$48.89/\$93.33
Bull Holders		
Long Handle	47cm, Stainless steel	\$35.51
Harms	19cm, Economy/Quality	\$22.18/\$61.33
Pliers Rope/Pliers Chain	20cm	\$35.51/\$23.07
Self Locking	Standard/Bronze/Aluminium	\$22.18/\$40.00/\$44.40
Spring Close - Lightweight alloy/Nickel plated, 12-13cm		\$24.84/\$26.62
Spring Close - Heavy Duty (17 cm)		\$40.00

Electric Prodders

Shoof International: (Prices include delivery on orders over \$50.00)

Picador Universal (23cm)	\$111.11
Kawe Universal (23cm)	\$94.18
Compact (pocket size)	\$53.29
Hot Shot “Green” (32cm to 106cm)	\$306.67 to \$342.22
Hot Shot “Blue” Economy (70cm)	\$221.33
Hot Shot “Green” Rechargeable (32cm to 81cm)	\$440.00 to \$484.44

Hot Shot Power Mite	\$168.00
<i>Leader Products:</i>	
Hot Shot Prodder – short/medium/long	\$230.22 to \$247.11
Hot Shot Rechargeable 12volt short/medium long	\$464.89 to \$489.78
Hot Shot Rechargeable 240volt short/medium/long	\$395.56 to \$406.22
Hot Shot Power Mite	\$139.56
Kawe Goad	\$145.78
Kawe Goad extension handle	\$41.78

Scales and Platforms (See also fleece and bale weighers, *Section 2.3.15*)

Livestock Sales & Scales: (ex Te Kauwhata)

Weighing Systems		
Tru Test	MP600 loadbars	\$1,025
Gallaghers	Smart Scale 200	\$1,620
Gallaghers	Smart Scale 300	\$1,975
Weighing Platforms		
Standard	2.0 m x 0.6 m	\$550
L/bar channel (pair)		\$69
L/bar footplates (pair)		\$77
Weighing Crates		
Standard/Remote	2.3 m x 0.7 m	\$2,149/\$2,261
Trailer to mobilise crate		\$875

Prattley Industries:

Sheep weigh crate with 3 way draft	\$1,270
3 way autodrafting sheep crate (includes Tru-Test indicator & load bar)	\$10,980

Prattley Industries also produce a full range of cattle handling equipment including calf debudding crates, headbails, squeeze crush, weigh crates and portable yards.

See also *Section 2.21.6*.

Pregnancy Diagnosis/Backfat/Rib Eye Sonography

(See *Sections 2.4.8* and *2.4.9* for charges if a contractor is used)

Canbay Pig Development Co.:

Renco Leanmeater back fat tester	\$1,285
Renco PT 1/PT 2 pregnancy tester	\$1,085/\$680

Medtel:

Aloka SSD-500 high grade, vet ultrasound equipment	\$15,500
Aloka UST-944B-3.5, sector probe for sheep pregnancy diagnosis	\$8,500
Aloka UST-588U-5, linear transrectal probe for large animal pregnancy diagnosis and musculoskeletal ultrasound	\$8,500
Aloka UST-556I-7.5, high frequency linear broadband probe–equine tendons	\$9,500
Aloka UST-9111-4-10 specialist broadband sector probe–small animal ultrasound	\$11,500

Dog Trainers

Agtronics:

Smart AID Training Collars	\$1,091.25
Bark Control Collars	from \$102.50
Remote Training Aids	from \$240.60
Radio Fence – Pet containment	\$445.00

Cow Lifters

Shoof International: (Prices include delivery on orders over \$50.00)

Daisy-Lifter - medium term support for a down cow	\$212.44
Hip Clamps - Economy/Standard/Quality	\$200.00/\$244.44/\$292.44

PETA Enterprises:

Cow Jack – lifting device for downer cows	\$1,600
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Leader Products (NZ):

Elfin Cow Sling	\$212.00
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Mating Devices

Ram Crayons – Soft (<i>Donaghys</i>)	\$3.20 each
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Leader Products (NZ):

Chinball	\$129.78
Chinball fluid	1 litre \$27.56

Calving Aids

Electro-tek Engineering Ltd:

Calving Chain Handles (stainless steel)	\$24.90
Calving Ropes - 8 mm (double/single loops)	\$8.40 / \$6.55
- 6 mm (double/single loops)	\$6.45 / \$5.10
Calving Chain - stainless steel (double/single loops)	\$66.70 / \$39.00

Shoof International: (Prices include delivery on orders over \$50.00)

Calving Chain Handles	\$22.18 to \$33.33
Calving Ropes	7mm economy, single/double eye \$7.07/\$12.00
	8mm slimline/12mm heavy duty \$15.96/\$13.29
Calving Strap -Heavy duty 25mm webbing with s/steel D rings	\$12.22
Calving Chains	- Nickel Plated \$23.78 to \$40.84
	- Stainless Steel \$39.96 to \$84.40
	- Stainless Steel Quality \$57.78 to \$93.33
Calf Pullers	- HK E11/HK E20/HK E21 \$532.44/\$585.78/\$644.44
	- Straps, low trauma \$62.18
	- Two Pulley \$230.22
Calf Puller Ropes	- traction ropes to fit any machine \$17.73
Obstetric Head Snare	- Rod-type \$61.33
	- Cable-type \$105.78

“Vink” Calving Jack	- Standard	\$665.78 to \$760.00
	- Beef Cattle	\$888.00
Obstetric Gown	- Standard, waterproof rip-free laminated fabric	\$105.78
Obstetric Lubricant	- 1 litre/2 litre/5 litre	\$707.00/\$10.62/\$22.18
	- 25 g/1 litre powder sachet	\$2.62
	- 1 litre powder kit with labelled container	\$4.40
Resuscitator HK Calf	- two way air pump with rubber nose-mask	\$244.44
Umbilical Cord Clamps	- 10 pack or 50 pack	\$3.33/\$11.11

Leader Products (NZ):

Leader Posi-Action Calf Saver	\$384.89
Leader Calf Saver with Rump Support Cradle	\$384.89
Rump support cradle only/Rump holder only	\$76.44
Obstetrical chains – 30 inch/60 inch	\$18.67 to \$32.00
Calving ropes (2)	\$16.89
Obstetrical straps – 30 inch/60 inch	\$22.22 to \$32.00
Calf assist	\$41.33
Large obstetrical hook/Small eye hook	\$16.89/\$15.11

Calf Covers

Palmer Canvas & Synthetics Ltd:

Quantity Purchased	Calf Covers		Cow Covers	
	Polyethylene	Jute	Polyethylene	Jute
Per 1	\$16.44	\$35.11	\$33.33	\$73.33
Per 5	-	-	\$29.33	\$69.33
Per 10	\$14.67	\$32.00	-	-
Per 20	\$13.78	\$29.33	-	-
Per 25	-	-	\$24.00	\$64.00
Per 50	\$12.22	\$27.11	-	-
Per 100	\$11.11	\$22.76	\$21.33	\$60.00
Per 200	\$9.60	\$20.09	-	-
Cover Sizes	Calf - Small 610mm/Medium 740mm/Large 860mm Cow - Small 1.32 /Medium 1.44m/ Large 1.6 m			

Shoof International: (Prices include delivery on orders over \$50.00)

Thermal Covers – ‘Semi-disposable’	\$48.89
Thermal Covers - ‘Foil Canvas’	\$61.33
Thermal Cover - ‘Super Cover 30’	\$105.78

Straitline Canvas Ltd:

	Length, Wither to Tail	10	50	100
Animac Polyethylene Calf Covers	400/650 mm	\$74	\$305	\$570
Deluxe Calf Covers	800 mm	\$91	\$382	\$713
	1100 mm	\$132	\$569	\$1,063
Jute Calf Covers	650 mm	-	\$591	\$1,118
	1100 mm	-	\$888	\$1,679

Horse Shoeing

A farrier in the Canterbury region charges \$65 for a hot shoe and \$15 for a hoof trim.

Saddles and Covers

McKenzie Saddlery Ltd:

Australian Stock saddles (unmounted)	\$1,795 to \$2,999
Indian Stock Saddles (unmounted)	\$430 to \$1,000
Farm bridles	up to approx. \$90
Horse covers - Summer (lined/unlined)	\$185/\$165
- Winter (lined)	approximately \$240
Neck Rug	\$98
Head collars - Webbing/Leather	\$17 to \$25/\$40 to \$80

Stirrups Equestrian Supplies Ltd:

Bridles	\$62.18 to \$315.02
Saddles	\$706.67 to \$1773.33
Covers	\$93.29 to \$262.22

2.4 CONTRACTING CHARGES

2.4.1 Hay Making

Some examples of contractors' charges are as follows:

Taranaki:

Mower/conditioner 2.8 m		\$105 per hour
Tedding/raking (28 foot rake)		\$95 per hour
Baling: - Conventional		\$0.95 per bale
- Large round	- 15 bale equivalents	\$12.50 per bale
	- 12 bale equivalents	\$11.50 per bale
	- 10 bale equivalents	\$11.00 per bale
Full Contract Baling – includes cut, turn twice, roe and bale		
- Conventional	- more than 100 bales	\$2.40 per bale
	- less than 100 bales	\$3.00 per bale
	- less than 50 bales	\$3.50 per bale
- Large round	- 15 bale equivalents	\$24.00 per bale
	- 12 bale equivalents	\$21.50 per bale
	- 10 bale equivalents	\$21.00 per bale
Stacking	Average of \$2.00 per bale depending on the distance from haystack	

Waikato:

Mower Conditioner		\$110 per hour
Baling	Conventional bale	\$1.25 per bale
	- includes rowing up	
	Medium square (10 bale equivalent)	\$26.50 per bale
	- includes raking, wrapping and stacking	

Hawkes Bay:

Baling	Conventional bale	\$0.88 per bale
	Large square bale	8 to 10 equivalent
		12 to 14 equivalent
		\$10 per bale
		\$12 per bale

Canterbury:

Medium square bales	6 ft (10 bale equivalent)	\$9.50 per bale
Mower conditioner	3m	\$100 to \$105 per hour
Mowing		\$70 per hour
Conditioning		\$85 per hour
Hay Baling	Conventional	\$1.20 per bale
	Large Round (14 bale equivalent)	\$11.00 per bale
	Medium Square (10 bale equivalent)	\$7.50 per bale
Mower Conditioner	10ft	\$125 per hour
Hay Baling	Conventional	\$1.00 per bale
	Medium Square (10-12 bale equivalent)	\$9.50 per bale
	Large Round/Square	\$12.00/\$12.50 per bale

Southland:

Medium square bales 7ft (includes raking plus balage)	\$10
Medium square bales 7ft (includes raking, wrapping, balage)	\$18.50
Cartage per bale	\$1

2.4.2 Silage

Some examples of contractor's charges are as follows:

Canterbury

Bale and Wrap – Round/Square Bales		\$16 per bale
Wrapped baled silage	Medium Square	\$16 per bale
	Large Round	\$18 per bale
To make the silage		\$3.75 per cubic metre
Mower Conditioner	10ft	\$125 per hour
Cartage		\$3.50

Another Canterbury contractor charges \$800 per hour for a chopper, loader and 3 trucks.

Waikato

Silage chopper 460hp	- grass	\$300 per hour
	- maize	\$350 per hectare
Trucks		\$90 per hour
Wrapped baled silage	Rowed, wrapped, baled	\$18 per bale
Medium square	10 bale equivalent	\$19 per bale
Stack tractor	200hp	\$120 per hour
Loader wagon	30 or more cubic metres	\$120 per hour
Another contractor charges the following: Loader Wagon - includes rowing, picking, stacking and rolling, 2 ha per hour \$200 per hour.		

Taranaki:

Wrapped Silage:		
- 1.2 diameter bale - baled and wrapped		\$21.00 per bale
- mowing and condition		\$4.00 per bale
- loading and gathering		\$2.00 per bale
Full Contract Wrapped Silage – includes cut, row, wrap and stack		
- size 10 bale equivalent 1.25 m		\$29.50 per bale

2.4.3 Cultivation/Drilling**Canterbury**

One typical contractor's rates are as follows:

	Rate per hectare
Ploughing	\$70
Grubbing	\$35
Harrowing	\$35

Mowing	\$35
Ploughing (with tractor) 135, 150 or 200 hp	\$120
Reversible ploughing per ha	\$50 to \$89
Subsoiler/Ripping - 7 legs, 4.5m to 700mm deep per ha	\$40 to \$90
Tunnel plough for reshaping borders per hour	\$120
Chisel Plough (straight in) per ha	\$60
Chisel plough (topwork) per ha	\$40
Direct drill, triple disc per ha	\$95
- with disc-coulters over borders	\$75
- with hoe-coulters (over borders)	\$80 (\$90)
- dry hire per ha	\$30
Conventional drill dry hire	\$65
Cambridge rolling (over borders) per ha	\$45
Heavy rolling per ha	\$50
Discing - top work	\$40
Discing - straight in	\$70
Levelling	\$40
Maxi-tilling	\$25
Maxi-tilling- with levelling boards - top work	\$40
- straight in	\$50
Planting maize per ha	\$100
Side dressing maize per ha	\$80
Mulching (straw stubble/thistles)	\$180

Other Contractors in Canterbury:

Ploughing	\$60 to \$80 per hectare
Chisel Ploughing	\$38 per hectare
Grubbing	\$22 per hectare
Discing	\$50 to \$55 per hectare
Heavy Rolling	\$40 to \$45 per hectare
Drilling	\$35 per hectare
Direct Drilling	\$75 to \$80 per hectare

Waikato

Rotary Hoe	\$110 per hour
Ploughing	\$110 per hectare
Discing (6m Discs)	\$220 per hour
Power Harrow (6m)	\$240 per hour
Drilling (Roller seeder)	\$90 per hectare
Planting (Maize)	\$95 per hectare
Hoeing 170hp, 120" hoe	\$120 per hour
Rotor tilling	\$120 per hour
3 in 1 (hoe, seed, roll)	\$100 to \$120 per hour
Ripping	\$120 per hour
Side dressing maize	\$54 per hectare
Undersowing	\$55 to \$60 per hectare

Hawkes Bay:

Side dressing of squash	\$50 per hectare
Discing and rolling	\$50 per hectare
Hoe and sow	\$112 per hectare
Sow only	\$42 per hectare
Rotary hoeing/Power harrowing/Ripping - \$105 to \$118 per hour depending on the size and horse power of machinery (JD4450 would be at the higher end)	

Taranaki:

Ploughing and discing	\$132 per hectare
Power harrowing (first pass)	\$110 per hectare
Power harrowing (second pass)	\$82 to \$88 per hectare
Drilling (including rolling)	\$110 per hectare
Hill country cultivation	\$88 per hour

Gisborne

Discing	\$49.75 per ha
Discing and rolling (Cambridge roller)	\$54.75 per ha
Ploughing	\$122.00 per ha
Power harrowing/Ripping	\$94.00 per ha
Rotor tilling	\$34.60 per ha
Planting (maize/sweetcorn squash at .76 metre spacing)	\$81.00 per ha
Drilling or re-grassing	\$75.00 per ha
Spraying	\$55.75 per ha
Cultivating	\$55.75 per ha
Rotary weeding	\$28.50 per ha

2.4.4 Windrowing

In the **Waikato** contractor charges are about \$75 to \$85 per hour
In **Taranaki**, rates for windrowing are \$85 per hour.

2.4.5 Heading/Harvesting

The following are contract prices for one **Canterbury** contractor.

Heading, trucks, put in silo	\$350 to \$400 per hour
Wheat and barley	\$70 per acre
Borage, grass seed and clover (pick up work)	\$75 to \$85 per acre
Direct heading of clover	\$90 per acre

Another Canterbury Contractor charges \$130 to \$140 per hectare for heading.

Rates vary with the type and quality of crop and the tonnage expected from it (i.e. a lower price is paid for crops on light soils with low yields). Smaller size paddocks and heavier crops are charged at a higher rate per hectare. Allowance should be made for travelling time for trucks, labour and for bagging. A surcharge for work on hill country is taken into account in the higher price range.

In Gisborne the average rate for heading is \$210 per hectare for maize.

In Waikato the average rate for heading is \$270 per hectare for maize. Binning is charged at \$30 per hectare.

Hawkes Bay	
Squash harvest	\$38 per bin

2.4.6 Oversowing

Waikato: For aerial seeding with a fixed wing plane, \$75 per tonne to \$200 per tonne is charged depending on application rates, seed weight and area sown.

Canterbury: For aerial seeding in a fixed wing plane, \$20 per hectare to \$50 per hectare is charged depending on size of the block and application rates.

2.4.7 Dipping

Sheep Dipping (Canterbury): Costs are between \$0.85 and \$1.31 depending on the length of wool, which affects the amount of wash used and length of time required under the shower. Price includes the cost of chemical for fly and lice protection.

2.4.8 Pregnancy Diagnosis

<i>Scan Plus:</i>	
Sheep - Multiples	50 cents per ewe
- Wet Dry	30 cents per ewe
Cows	\$1.60 per head
Deer	\$1.50 to \$2.00 per head

<i>Stocktech:</i>	
External ultrasound for cattle	\$1.70 per head

Ultra-scan Ltd:

Cattle: \$1.80 per head with a minimum charge of \$50.00

Sheep: (minimum of 300)	Per head
Wet/dry	\$0.40
Twin	\$0.50

2.4.9 Muscle and Fat Detection

<i>Stocktech:</i>	
Complete carcass model:	
- includes weighing and fat depth scan at two points to put together a carcass model for stock evaluation	\$2.50 per head

2.4.10 Miscellaneous Contracting

Canterbury:

Shelter belt trimming and gorse cutting	\$55 per hour
Tree topping	\$105 to \$120 per hour
Digging of offal pits trenches drains etc - \$100/ hour (minimum of 1 hours work required)	
Post driving	\$35 per hour
Tailing	\$65 per hour
Bulldozing	\$100 to \$120 hour

Hawkes Bay:

Effluent Spreading (2000 price)	\$75 per hour
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Taranaki:

Shelter belt trimming	\$100 to \$135 per hour
Tree topping – with a chainsaw	\$30 per hour
Bulldozing	\$75 to \$100 per hour

Waikato:

Bobcat work	\$85 per hour
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Gisborne (2000 prices):

Excavator (12, 15, 20, 30 tonne machines)	\$70 to \$120 per hour
Bulldozing D3 Caterpillar	\$65 per hour
D65	\$110 per hour
Komatsu D65	\$120 per hour
Trenching, includes excavator and bulldozer for backfilling	\$70 to \$88 per hour

2.4.11 Agricultural Machinery Hire Rates

These are published as a guide only, updated figures unavailable at time of printing.

Wheel Tractors (kW)	Hire rate 2WD per hour	Hire rate 4WD per hour
10 to 21	\$41.00 to \$44.00	\$42.00 to \$45.10
22 to 37	\$47.00 to \$50.00	\$48.20 to \$51.30
38 to 51	\$53.50 to \$57.00	\$54.80 to \$58.40
52 to 64	\$61.00 to \$65.00	\$62.50 to \$66.60
65 to 88	\$73.00 to \$76.00	\$74.80 to \$77.90
89 to 142	\$82.00 to \$99.00	\$84.10 to \$101.50
Extra charge for implements for tractors		
Rotary Hoe	1.3 m to 3.0 m	\$8.50 to 22.50
Disc Mowers		\$12.00
Haytedders		\$10.50
Hayrakes		\$12.00

Grain Drills		
Coulters		Hire rate per hour
Up to 16		\$25.00
17 to 20		\$50.00
Over 20		\$75.00
Hay Making Machinery		
Haybalers		Hire rate per hour
- conventional (depending on group)		\$90.00 to \$150.00
- one tonne square		\$320.00
- 0.5 tonne round (depending on group)		\$115.00 to \$130.00
Haymower conditioners		\$31.00 to \$58.50
Forage Harvesters – Double Chop		\$50.00
Forage Harvesters – Fine Chop (depending on group)		\$21.00 to \$86.00
Hedge and grass mulcher mowers		\$11.00 to \$38.00
Bulldozers	Hire rate per hour	Heavy duty ripping - plus
below 3 tonnes	\$40.00	-
3 to 7 tonnes	\$50.00 to \$83.00	\$8.00
7 to 13 tonnes	\$100.00	\$8.00 to \$10.50
13 to 20 tonnes	\$121.00 to \$142.00	\$13.50 to \$16.00
20 to 35 tonnes	\$165.00 to \$215.00	\$19.00 to \$23.00
Chain Trenchers		
kW		Hire rate per hour
10		\$45.00
11 to 25		\$50.00 to \$65.00
26 to 65		\$75.00 to \$90.00
Graders		
kW		Hire rate
Up to 60		\$100.00
60 to 180		\$120.00 to \$140.00
Over 180		\$190.00

Note: **Fencing** Contractor rates see *Section 2.19.1*

Shearing rates see *Section 2.3.15*

Fertiliser spreading charges see *Section 2.6.4*

Spraying costs see *Section 2.9.16*

Grain Drying see *Section 2.11..2*

2.5 ELECTRICITY

2.5.1 Total Farm Electricity Costs

Depending on the type of farm size and locality, typical electricity costs (including domestic) are as follows:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$0.58
Waikato/Bay of Plenty Intensive	\$0.60
Central North Island Hill Country	\$0.44
Gisborne Large Hill Country	\$0.30
Hawkes Bay/Wairarapa Summer Dry	\$0.57
Hawkes Bay/Wairarapa Summer Moist	\$0.55
Manawatu/Rangatikei Intensive	\$0.94
South Island Merino	\$0.44
Canterbury/Marlborough Hill Country	\$0.52
Canterbury/Marlborough Breeding and Finishing	\$0.53
Otago Dry Hill	\$0.48
Southland/South Otago Hill Country	\$0.49
Southland/South Otago Intensive	\$0.88
National	\$0.56
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$25
Waikato/Bay of Plenty	\$26
Lower North Island	\$31
Canterbury	\$47
Southland	\$20
West Coast	\$29
National	\$29
<i>Deer</i>	<i>(per su)</i>
North Island	\$1.13
South Island	\$0.86
<i>Arable</i>	<i>(per ha)</i>
Canterbury	\$44
<i>Horticulture</i>	<i>(per ha)</i>
Kiwifruit	\$200
Hawkes Bay Pipfruit	\$120
Nelson Pipfruit	\$209

Source: MAF Monitoring Reports - July 2001.

2.5.2 Regional Charges

TrustPower

“Friends” pricing is for customers who pay regularly on time, standard is for those who do not. (Pricing includes GST and is before 10% prompt payment discount.)

Tauranga

(cents/unit)	“Friends” Pricing	Standard Pricing
24 Hour	14.83	14.83
Controlled 17	9.38	9.38
Controlled 19	11.00	11.00
Kiwi Power	8.25	8.25
Night Owl	7.56	7.56
Tui Day	17.47	17.47
Tui Night	7.56	7.56
Control Day (17hr)	10.26	10.26
Control Night (17hr)	7.56	7.56
Control Day (19hr)	11.78	11.78
Control Night (19hr)	7.56	7.56
Interrupted	14.04	14.04
Peak High	29.77	29.77
Peak Low	13.25	13.25
Fixed Charge (c/day)	200.55	205.83

Christchurch

Medium to High Use (cents/unit)	“Friends” Pricing	Standard Pricing
24 Hr Supply	16.70	16.95
All Inclusive	12.87	13.12
Control Day	15.31	15.56
Control Night	5.81	6.06
Tui Day 8	15.31	15.56
Tui Night 8	5.81	6.06
Tui Day 7	15.10	15.35
Tui Night 7	5.53	5.78
Tui Day 6	14.87	15.12
Tui Night 6	5.26	5.51
24hr Supply	13.93	14.18
Night Owl	5.81	6.06
24 Hr Supply	13.93	14.18
Kiwi Power	6.92	7.17
Fixed Charge (c/day)	45.00	50.00
Fixed Charge (c/day)	50.00	55.55
Low Use – less than 8000 units per year	“Friends” Pricing	Standard Pricing
24 Hr Supply	17.21	17.46
All Inclusive	13.38	13.63
Tui Day 8	15.82	16.07
Tui Night 8	6.33	6.58
Fixed Charge (c/day)	35.00	35.00

2.5.3 Irrigation

Christchurch Commercial Standard (excl. GST)

	Standard Price (c/kWh)
Seasonal Irrigation	6.33

	Standard Price (c/kWh)
Taupo Commercial General	
Summer Irrigation	7.82
Winter Irrigation	12.31

2.5.4 Cost of Power Installation

The average cost of installation for 1 kilometre of power line in rural areas is \$25,000 (this is for 11,000-volt overhead lines). Price varies depending on the distance to be installed i.e. the shorter the distance the more it costs per metre, up to 350 m, then prices start to level out.

2.6 FERTILISER AND LIME

2.6.1 Fertiliser

Ballance Agri-Nutrients Ltd:

Price per tonne bulk ex works Awarua (South Island.), Whangarei, Mt Maunganui and Bell Block (North Island.)

N	P	K	S	Ca	Mg		\$ per tonne (bulk)
Superten							
-	10	0	11	22	-	Superten	\$195.70
-	9	5	10	20	-	10% potash superten	\$227.42
-	8	8	10	19	-	15% potash superten	\$240.20
-	8	10	9	18	-	20% potash superten	\$252.97
-	7	15	8	15	-	30% potash superten	\$278.51
-	5	25	6	11	-	50% potash superten	\$329.60
Pasturezeal							
3	10	-	10	-	22	Pasturezeal	\$224.54
3	9	5	9	-	20	Pasturezeal 5K	\$253.38
3	8	7	9	-	19	Pasturezeal 7K	\$262.44
2	8	10	8	-	18	Pasturezeal 10K	\$276.04
2	7	15	7	-	15	Pasturezeal 15K	\$298.70
Pasturemag							
7	6	-	7	4	14	Pasturemag	\$215.58/\$219.96
6	5	5	7	4	13	Pasturemag 5K	\$243.18/\$247.10
6	5	8	6	4	12	Pasturemag 8K	\$255.39/\$259.10
6	5	10	6	3	11	Pasturemag 10K	\$271.15**
5	4	15	5	3	10	Pasturemag 15K	\$292.11/\$295.20
12	5	-	6	4	13	Pasturemag 12N	\$236.39/\$240.25
6	5	-	16	4	13	Pasturemag 16S	\$220.16*
6	5	6	11	3	15	Pasturemag peat	\$256.16**
6	5	6	11	3	15	Pasturemag pumice	\$256.16**
Urea							
46	-	-	-	-	-	Urea Bulk	Sth Is. Only \$383.16*
46	-	-	-	-	-	Urea 40 kg	\$429.51*
46	-	-	-	-	-	Urea 500 kg	\$429.51*
41	-	-	14	-	-	Ammo	\$391.25*
N-rich							
46	-	-	-	-	-	N-rich urea bulk	Sth Is.*/Nth Is.** \$415.09/\$383.16
46	-	-	-	-	-	N-rich urea 500kg	\$461.44*
46	-	-	-	-	-	N-rich urea 40 kg bagged	\$429.51**
46	-	-	-	-	-	N-rich urea multi-trip refills	\$398.61**
31	-	-	14	-	-	N-rich ammo	\$391.25**
Cropzeal							
14	15	13	1	-	-	Cropzeal 15P	\$536.89
16	8	10	10	-	-	Cropzeal 16N	\$476.89

20	10	0	12	-	-	Cropzeal 20N	\$477.92
6	5	7	6	4	12	Cropzeal brassica base	\$292.67
14	13	12	5	-	1	Cropzeal 14-12-12	\$608.73**
5	5	5	11	4	11	Crop fertiliser	\$268.11**
Hydro							
14	5	15	1	1	4	Hydro green	\$592.25
27	-	-	-	2	4	Hydro can	\$419.21
Sulphur Fertilisers							Sth Is.*/Nth Is.**
-	9	-	15	-	20	Sulphur super 15	\$200.23/\$199.80
-	8	-	21	-	20	Sulphur super 20	\$197.76
-	7	-	30	-	18	Sulphur super 30	\$187.46
-	6	-	47	-	14	Sulphur super 50	\$202.14*
-	7	8	17	-	17	15% Potash sulphur super	\$239.78
-	7	10	16	-	16	20% Potash sulphur super	\$252.80**
-	6	15	14	-	14	30% Potash sulphur super	\$278.72
-	5	25	10	-	10	50% Potash sulphur super	\$330.63
-	-	-	100	-	0	Durasul	\$324.45
Phosphate Fertilisers							
-	21	-	-	-	14	Triple superphosphate	\$506.76
-	15	-	6	-	18	Superextra	\$302.80**
-	13	-	-	-	34	RPR	\$210.12
-	12	-	6	-	31	RPR + S	\$211.80**
Potash Fertilisers							
0	0	50	0	-	-	Muriate of potash	\$451.14
0	0	40	17	-	-	Sulphate of potash	\$709.67
-	12	10	5	-	14	20% Potash superextra	\$338.70**
-	11	8	-	-	29	15% Potash RPR	\$252.50**
-	9	15	-	-	24	30% Potash RPR	\$288.60**
13	6	17	9	-	-	Revive	\$468.90**
Nitrogen Fertilisers							
21	-	-	23	-	-	Sulphate of Ammonia	\$386.25
18	20	-	1	-	0	DAP	\$557.23
11	15	-	12	-	7	DAP sulphur super	\$415.50
14	14	-	-	-	0	DAP substitute	\$409.50**
9	12	10	10	-	6	20% Potash DAP sulphur super	\$428.80**
7	7	-	15	-	17	Ammoniated super	\$261.00**
6	7	-	15	-	16	Nitro boost	\$253.30**
Magnesium Fertilisers							Sth Is.*/Nth Is.**
-	7	-	9	5	17	Serpentine super	\$175.10/\$180.30
-	6	8	7	4	14	15% Potash serpentine super	\$222.69/\$227.10
-	5	10	7	4	13	20% Potash serpentine super	\$236.49/\$240.60
-	5	15	6	4	12	30% Potash serpentine super	\$264.09/\$267.40
-	3	25	4	3	9	50% Potash serpentine super	\$321.90**
-	7	-	19	3	17	Serpentine gold	\$187.46*
-	9	-	10	5	20	Magphos	\$223.50**
-	7	8	9	5	17	15% Potash magphos	\$264.90**

-	6	15	7	5	14	30% Potash magphos	\$303.20**
-	-	-	-	54	3	Calcined magnesite (Calmag)	\$442.90**
-	5	8	6	9	13	15% Potash serp. Super + 10% E-M	\$253.30**
-	4	15	5	8	10	30% Potash serp. Super + 10% E-M	\$294.00**
South Island Specialty Fertilisers							
-	11	-	11	-	24	Double eleven	\$212.18*
-	10	-	17	-	23	Tussock	\$209.09*
-	6	12	16	-	14	Lucerne mix	\$312.81*
-	5	11	14	2	13	Lucerne fertiliser	\$307.09*

* South Island only

** North Island only

Trace Elements

To obtain an approximate price for a trace element addition when incorporated at the rates below add the mixture price of the additive shown to the base fertiliser price.

South Island	Bag Size	Price (tonne)	North Island	Bag size	Price (tonne)
Cobalt Sulphate	25kg	\$611.56	Granular Cobalt	1.0kg	\$15.45
Copper Sulphate	25kg	\$56.65	Copper Sulphate	12.5kg	\$32.14
Granular Borate	25kg	\$44.81	Granular Boron	25kg	\$41.41
Selcote Ultra Selenium	25kg	\$84.75	Selcote Ultra	1.5kg	\$5.92
Calcined Magnesium Fine	25kg	\$14.90	Granular Molybdenum	500g	\$9.99
Calcined Magnesite Granular	25kg	\$14.48			
Ulexite	25kg	\$30.39			
Zinc Sulphate	25kg	\$41.20			
Sulphate of Iron	25kg	\$19.31			

Dominion Chemicals Ltd:

Solid Fertilisers:	Unit	Cost
Ammonium Nitrate	25kg	\$32.00
Ammonium Sulphate	25kg	\$25.00
Blood and Bone N7 P7 K0	25kg	\$21.50
Calcium Nitrate	25kg	\$28.00
Diammonium Phosphate Tech	25kg	\$56.25
Dolomite	25kg	\$12.00
Gypsum Fine	25kg	\$9.75
Lime (Agricultural)	25kg	\$3.75
Monoammonium Phosphate	25kg	\$54.75
Monopotassium Phosphate	25kg	\$64.50
Potassium Nitrate	25kg	\$35.75
Potassium Sulphate Ag	25kg	\$34.75
Sechura RPR N1 P6 K1 S7 Ca18	25kg	\$15.50
Urea	25kg	\$24.75
Trace Elements:		
Borax Decahydrate (Boron)	25kg	\$47.50
Borax Pentahydrate (Boron)	25kg	\$48.75

Borax Solubor (Boron)	25kg	\$137.50
Boric Acid 99%	25kg	\$48.75
Calcium Chloride 74%	25kg	\$18.75
Cobalt Sulphate	25kg	\$715.00
Copper Hydroxide (slow release copper)	25kg	\$46.75
Copper Sulphate	25kg	\$44.00
Iron Sulphate M/H	25kg	\$27.00
Kieserite	50kg	\$52.50
Magnesium Oxide (see Shandong)		
Magnesium Sulphate 99%	25kg	\$15.00
Manganese Oxide	25kg	\$30.00
Manganese Sulphate FG	25kg	\$26.50
Potassium Iodate	25kg	\$1,291.25
Selcote Ultra	25kg	\$98.25
Shandong 60 mesh (Magnesium Oxide)	tonne	\$496.65
Shandong 200 mesh (Magnesium Oxide)	tonne	\$500.85
Sodium Molybdate	50kg	\$1020.50
Sulphur Prills	25kg	\$16.75
Sulphur Suspension	10 litre	\$45.50
Zinc Sulphate M/H	25kg	\$33.75
Zinc Sulphate H/H	25kg	\$26.50
<hr/>		
Chelates Powders EDTA:		
Calcium 10%	20kg	\$328.00
Cobalt 14%	20kg	\$1,231.00
Combi (Cu 1.7%, Fe 3.35%, Mn 1.7%, Zn 0.6%, B 0.785%, Mo 0.023%)	20kg	\$200.00
Copper 14.5%	20kg	\$310.00
Iron 13.2%	20kg	\$210.00
Magnesium 6%	20kg	\$298.00
Manganese 12%	1kg	\$18.97
Zinc 14%	20kg	\$241.20
<hr/>		
Specialty Products:		
Domgib Gibberellic Acid (GA ₃) - Powder	1g	\$1.04
Domgib Gibberellic Acid (GA ₃) - Tablets	per tablet	\$2.80
Potassium Hydroxide	25kg	\$52.00
Potassium Permanganate B.P.	50kg	\$299.00
Seaweed Soluble Powder	20kg	\$475.00
Sulphur Powder Flowers	25kg	\$172.00

Evergreen Horticulture and Hydroponics:

Liquid Cut Flower Food:

Chrysal:	Clear Professional 2	5/10 litres	\$45.00/\$80.00
	Clear Professional 3	5 litres	\$38.20

Fluid Fertilisers NZ Ltd:

Pastoral and Arable: Fertilisers, Trace Element Concentrates and Soil Conditioners

N	P	K	S	Type	2 litres	5 litres	10 litres	20 litres	200 litres		
9	5	6	0	Reaction				\$85	\$730		
5	4	11	0	Reaction				\$85	\$730		
14	4	4	0	Reaction				\$85	\$730		
6	9	5	0	Reaction				\$105	\$900		
28				Arable N				\$55	\$420		
		22		Arable K				\$115	\$1,050		
11			26	Arable S				\$88	\$780		
				Magnesium 60g/l				\$70	\$550		
5				Boron 150g/l		\$45		\$160			
				Cobalt Chelate	\$96	\$219					
				Copper Chelate	\$40		\$185				
				Manganese Chelate	\$26		\$115				
				Boron Tracepack	\$30						
				Zinc Tracepack	\$30						
				Selenium Tracepack	\$30						
				Zinc Chelate	\$35		\$160				
				Humic Standard				\$85	\$720		
				Rapid N					\$590		
			14	Super Sulphur				\$85	\$730		
8	3	6		FluidFert Fish Formula				\$75	\$630		
14				Qualigrass				\$70	\$550		
				Super Seaweed				\$115	\$1,020		
				Solfert					\$630		
				Millennium 3				\$85	\$630		
Horticultural Range:					1 litre	2 litre	5 litre	10 litre	20 litre	100 litre	200 litre
Amino-N							\$90	\$170	\$320	\$1,600	\$3,000
Bactalife							\$115	\$225	\$425		\$4,060
Bactastim					\$125		\$595				
Boronplus							\$45	\$85		\$790	
Calboost							\$100	\$190	\$370		
Calciphos							\$35		\$130		\$950
Calcium									\$71		\$625
Calcium Drench											\$595
Calcium N									\$88		\$775
Calflo								\$45			
Cobalt Chelate					\$90		\$219				
Copper F							\$80	\$150			
Copper Chelate					\$40		\$88				
Crop-Xcel							\$90	\$170	\$320	\$1,600	\$3,000
Foliar N									\$55		\$420
Foliar K									\$115		\$1,050
Fosfonate							\$60	\$115	\$210		

Humagrow		\$85	\$160	\$300		\$2,900
Magcalphos		\$35		\$130		
Magphos		\$55		\$180		
Magplus			\$35	\$65	\$290	\$540
Manganese Chelate	\$26	\$58		\$200		
Molyphos	\$76	\$180				
Zincflow			\$170			
Zinc Chelate	\$35	\$78		\$300		
Quickstart				\$85		\$620
Earlyboost				\$95		\$730
Xtravigour				\$95		\$730
Hiyield				\$95		\$730

Hatuma Lime Co:

N	P	K	S		Price per tonne
Phosphate:					
0	4	0	6	No 7 Dicalcic Phosphate	\$136.10
Sulphur:					
				Calsul	\$77.70
0	4	0	10	Dicalcic Phosphate 10% Sulphur	\$149.25
Potash:					
0	4	7	5	15% Potassic Dicalcic Phosphate	\$192.70
0	3	15	4	30% Potassic Dicalcic Phosphate	\$246.50
0	2	12	5	Haymix/Dairy Blend	\$238.20
Beef/Dairy and Sheep:					
0	3	0	4	No 4 10% Salt	\$148.60

Hortlink New Zealand Ltd:

Meat and Bone	50 kg	\$43.50
Blood and Bone	40kg	\$48.30
Dolomite Lime	25 kg	\$8.00
Sulphate of Iron	25 kg	\$20.50

Liquid and soluble fertilisers:

N	P	K			
8	3.2	5	Wuxall Super	20 litres	\$114.00
40	4	4	Schultz Turf and Lawn Super	1.8kg	\$17.30
20	30	20	Schultz Instant All Purpose	566g	\$7.65

Controlled release fertilisers; Plantacote

N	P	K				
14	3.9	12.4	1.2 MG + TE	3-4 month release Standard	25kg	\$138.80
14	3.9	12.4	1.2 MG + TE	3-4 month release + Trace Elements	25kg	\$126.26
14	3.5	12.4	1.2 MG + TE	8-9 month release Standard	25kg	\$118.40
14	3.5	11.6	1.2 MG + TE	8-9 month release + Trace Elements	25kg	\$138.56
				Nutricote	25kg	141.75

Livestock Supplies (N.Z.) Ltd:

Fertilisers:		
Biostart – Clover Plus	20 litre	\$256.85
Biostart – Digester	10 litre	\$160.00
Biostart – Humic Extra	20 litre	\$246.85
Blood – Dried	kg	\$1.20
Blood and Bone	kg	\$1.00
Calcium nitrate	kg	\$1.35
Sodium nitrate	kg	\$1.20
Diammonium phosphate	kg	\$0.82
Gypsum	25 kg bag	\$11.00
Melspray 16.14.13 and TE	kg	\$3.88
Melspray 20.9.17.3 and TE	kg	\$3.78
Mono potassium phosphate	kg	\$3.48
Murate potash	kg	\$0.55
Phosphoric Acid (liquid)	35 kg drum	\$77.00
Potassium nitrate	kg	\$1.75
Sulphate potash soluble/granular	kg	\$1.30/\$0.80
Sulphate of Ammonia (Tek)	kg	\$0.48 (\$1.20)
Sulphur – Prills/Fine Prilled	kg	\$0.70/\$0.80
Superphosphate	kg	\$0.25
Urea	kg	\$0.56
Trace Elements:		
Boron 48	per kg	\$1.45
Boronat	per kg	\$1.28
Cobalt – Chelate	per kg	\$80.00
Copper Chelate	per kg	\$16.35
Copper Sulphate	per kg	\$2.18
EMag Fertiliser	per kg	\$0.55
Flours of Lime	per kg	\$0.20
Iron – Mono/Sulphate	per kg	\$1.52/\$1.20
Livestock Supplies 1-year Selenium Chip	per kg	\$1.70
Magnesium Chloride	per kg	\$0.57
Magnesium Phosphate	per kg	\$0.50
Magnesium Sulphate	per kg	\$0.58
Maganese Sulphate, fert grade	per kg	\$1.30
Monensin	per kg	\$18.95
Potassium Carbonate	per kg	\$3.20
Potassium Iodate	per kg	\$54.60
Selcote Ultra Selenium	per kg	\$3.48
Sodium Molybdate	per kg	\$18.95
Sodium Sulphate	per kg	\$1.62
Ultra Selenium and Cobalt	per hectare	\$5.90 to \$8.50
Zeolite	per kg	\$0.75
Zinc – Chelate Powder	per kg	\$19.05
Zinc – Hepto/Mono Granular	per kg	\$1.00/\$1.68
Zinc – Oxide/Powder	per kg	\$4.75/\$1.55

Ravensdown Fertiliser Co-Operative Ltd:

The following is effective from 1 June 2001 for the lower North and the South Islands.

N	P	K	S		\$ per tonne (bulk)
Phosphate Fertilisers					
0	9	0	12	Superphosphate	\$180.00
0	21	0	1	Triple Super	\$482.00
0	13	0	15	TSP/Sulphur Super	\$307.40**
13	16	0	16	DAP 15 S (15% Sulphur)	\$441.30
0	7	0	9	Drilling Super	\$173.00*
0	7	0	9	Serpentine Super	\$173.00
0	13	0	1	Reactive Phosphate Rock (Ben Guerir)	\$206.00
0	15	0	6	Super Extra P	\$335.00**
0	10	0	17	RPR 17 S (17% Sulphur)	\$205.71
0	11	0	11	RPR/Sulphur Super	\$201.55
Sulphur Fortified Fertilisers					
0	9	0	15	Sulphur Super 15 S	\$185.30
0	8	0	19	Sulphur Super 19 S	\$186.60
0	7	0	29	Sulphur Super Extra 29 S	\$189.85
0	6	0	40	Sulphur Super Extra 40 S	\$193.75
0	5	0	50	Maxi Sulphur Super 50 S	\$193.00
Superphosphate and Trace Elements					
0	9	0	11	Boron Super (25 kg)	\$214.30
0	9	0	12	Cobalt Super (1.5kg)	\$210.77
0	9	0	11	Copper Super (25 kg)	\$226.83
0	8	0	11	Magnesium Super	\$203.76
0	9	0	12	Molybdenum Super (250g)	\$186.51
0	9	0	12	Selenium Super (2kg)	\$189.86
Potassium Fertilisers					
0	8	5	10	10% Potash Super	\$209.60
0	8	8	10	15% Potash Super	\$222.40
0	6	8	7	15% Potash Serpentine Super	\$216.45*
0	8	8	10	15% Potash Selenium (2 kg) Super	\$228.26
0	7	8	16	15% Potash Sulphur Super	\$224.61**
0	7	10	9	20% Potash Super	\$235.20
0	7	10	15	20% Potash Sulphur Super	\$237.28*
0	5	15	8	30% Potash Super	\$260.80
0	6	15	14	30% Potash Sulphur Super	\$262.62*
0	5	25	5	50% Potash Super	\$312.00
7	5	7	14	Hi-Gro Standard	\$256.34**
0	0	50	0	Potassium Chloride	\$436.00
4	7	4	13	Dairy Boost 4	\$229.68**
4	6	8	12	Dairy Boost 8	\$250.16**
Nitrogen Fertilisers					
21	0	0	24	Ammonium Sulphate (Granular)	\$377.00
21	0	0	24	Ammonium Sulphate (Standard)	\$306.00
27	0	0	0	Calcium Ammonium Nitrate (CAN)	\$405.00
46	0	0	0	Urea	\$395.00

Magnesium Fertilisers (Mg)

0	8	0	9.5	8.8	Maxi Mag Super	\$225.99
0	8	0	11	4	Magnesium Super	\$203.76
0	7	10	9	3	20% Potash Magnesium Super	\$251.26**
7	6	0	7	5	Super Mag N	\$210.30**

Cropmasters®

18	20	0	1		Cropmaster DAP	\$542.00
20	10	0	13		Cropmaster 20	\$463.50
15	10	10	8		Cropmaster 15	\$475.30
13	14	15	1		Cropmaster 13	\$514.20
11	12	20	1		Cropmaster 11	\$503.60

Ammo-Phos™

11	22	0	1		Ammo-Phos MAP	\$571.00
9	19	7	1		Ammo-Phos/Hycrop	\$554.75
8	15	15	1		Ammo-Phos/Hycrop	\$534.50
8	12	22	1		Ammo-Phos/Hycrop	\$507.00
16	11	0	13		Ammph-Phos/Hycrop	\$478.00

Potash Gold (Potassium Sulphate)

16	10	10	5		Potash Gold	\$546.14
15	10	10	12		Potash Gold	\$535.72
14	7	14	6		Potash Gold	\$557.05
8	15	13	6		Potash Gold	\$611.00
0	7	8	13		20% Potash Gold Super	\$286.20
0	6	15	14		35% Potash Gold Super	\$362.85
0	4	23	15		55% Potash Gold Super	\$465.05**
0	0	42	18		Potassium Sulphate (Granular)	\$691.00

Nitrophoska®

12	10	10	1		Nitrophoska	\$589.00
12	5	14	3		Nitrophoska Blue TE	\$584.00
12	5	14	8		Nitrophoska Blue Extra	\$916 / tonne (25kg bags)
15	2	17	8		Nitrophoska Perfekt	\$933 / tonne (25kg bags)
15	4	13	6		Nitrophoska Top 15 (slow release)	\$1,470 / tonne (25kg bags)

* South Island only ** Lower North Island only

Horticultural Fertilisers:

Ravensdown Fertiliser Cooperative Limited, Nelson Store

N	P	K	S	Mg		\$ per tonne, bulk
0	0	0	23	0	Zinc Sulphate (Monohydrate)	\$1,318.00
0	0	0	13	10	Magnesium Sulphate	\$530.00
0	0	0	22	16	Kieserite	\$523.00
0	0	0	0	11	Dolomite	\$67.30
13	0	38	0	0	Potassium Nitrate (crystalline)	\$1,069.00
0	0	0	23	0	Ferous Sulphate 19% Fe	\$481.00
0	0	0	13	0	Manganese Sulphate 32% Mn	\$947.00
0	0	0	0	55	Calcined Magnesite	\$427.00
16	4	16	4	0	Asparagus Fertiliser	\$475.99
11	3	11	10	0	Berryfruit Fertiliser	\$409.47

7	3	17	8	0	Hop Fertiliser	\$332.85
12	2	14	0	0	Kiwifruit Fertiliser	\$461.85
15	0	18	8	0	Kiwifruit Fertiliser Nil P	\$537.70
7	4	7	16	12	Market Garden Fertiliser	\$323.66
10	2	10	6	2	Orchard Fertiliser	\$312.29
10	2	5	7	2	Orchard Low K	\$295.89
6	3	12	7	1	Orchard Low N	\$298.84
0	0	0	18	0	Gypsum (Calcium Sulphate)	\$167.00

Liquid Fertilisers:

Ravensdown Fertiliser Co-operative Lt.: (South Island and Lower North Island)

					Unit Size	Price
Calcium Products						
Pitstop	(17% Ca)				20/200 litre	\$69.50/\$643.50
Grocal	(17% Ca, 16% N, 2% Mg, 1% B)				20/200 litre	\$92.50/\$800.00
Trace Elements						
Zinc 75	75% (elemental) flowable Zn				5/10 litre	\$106.50*/\$193.40
Supabor	(10% B, 4% N)				5/20 litre	\$37.00*/\$130.00
Supatrace 10	(5% N, 3% Fe, 3% Zn, 2% Mn, 1% Cu, 0.77% B, 6% S, 0.05% Mo)				5/20 litre	\$23.40*/\$70.30
Supa ZM60	(20% Zn, 12.5% Mn)				5/20 litre	\$34.00*/\$124.70
Mag-Flo	30% (elemental) flowable Mg				20 litre	\$87.60
Supa Moly	(25%Mo, 11% P)				5 litre	\$135.00
Chelates						
Supa-Mang	6% Mn				5/20 litre	\$46.10*/\$164.70
Supa-Zinc	7.5% Zn				5/20 litre	\$46.10*/\$167.00
Supa-Mag	5% Mg				5/20 litre	\$26.40*/\$93.70
Supa-Copper	6% Cu				5/20 litre	\$52.90*/\$189.70
Supa-Cal	5% Ca				5/20 litre	\$42.30*/\$154.90
N.P.K. (Clear Liquid) Fertilisers – suitable for horticultural and pastoral use						
Supa N 32	32% Liquid N				20/200 litre	\$46.10/\$413.30
High N P	14.12.3 + TE, Kelpak				20/200 litre	\$90.70/\$810.70
High N K	18.6.14 + TE, Kelpak				20/200 litre	\$72.50/\$630.00
Super K 30	0.0.30 + TE, Kelpak				20/200 litre	\$130.70/\$1,174
Guard P K	7.21.21				20/200 litre	\$150.00/\$1,300
Balance Foliar	9.4.6 + TE				20/200 litre	\$53.60/\$484.30
Polyphos	13.20.0 + 1% Zn				20/200 litre	\$94.40**/\$851.50**
Premium	0.15.0 + 4% Ca				20 litre	\$145.10**
Fertigation Products: Chelated trace elements and 3% Humic Acid						
Groflow 40H	30.10.0				20 litre	\$77.80
Groflow 45H	16.17.12				20 litre	\$104.30
Groflow 44H	19.9.16				20 litre	\$87.60
Groflow 42H	5.10.27				20 litre	\$88.40
Groflow 47H	15.2.30				20 litre	\$92.20

* South Island only, ** Lower North Island only

Rural Research Limited:

Liquid Fertilisers – Nitrosol Liquid Blood and Bone fertiliser.							
N	P	K	S	Name	Quantity	Nth Is. Price	Sth Is. Price
8	3	6	2	Nitrosol Original	5 litre	\$41.00	\$42.00
8	3	6	2	Nitrosol Original	20 litre	\$120.00	\$120.00
8	3	6	2	Nitrosol Original	60 litre	\$310.00	\$315.00
8	3	6	2	Nitrosol Original	200 litre	\$800.00	\$850.00
8	3	6	2	Nitrosol Oceanic	5 litre	\$43.00	\$44.00
8	3	6	2	Nitrosol Oceanic	20 litre	\$123.00	\$123.00
8	3	6	2	Nitrosol Oceanic	60 litre	\$317.00	\$322.00
8	3	6	2	Nitrosol Oceanic	200 litre	\$810.00	\$860.00

The prices detailed above include the cost of freight from the factory to local merchants throughout New Zealand.

Mark Bell Booth Limited:

Supacrop Soluble Foliar Fertiliser	Pack Size	Retail Price
Crop Spray (27.7.10)	10 kg	\$62.50
Foliar G.P. (20.8.16)	10 kg	\$63.50
Pasture Plus (23.6.10.5)	10 kg	\$60.00
Soluble Phosphate (9.20.10)	10 kg	\$74.00
Soluble Potassium (6.6.30)	10 kg	\$73.50
Supacrop Foliar Sprays for Pasture and Crops		
Cereal Blend	20/200/1000 litre	\$101/\$810/\$3,930
Enhance Spray Oil	5/20/200 litre	\$39/\$146.50/\$965
Fodder Blend	20/200 litre	\$98/\$783
Humusol Soil Conditioner	5/20/200 litre	\$44/\$159/\$1,430
Stabilised N (liquid nitrogen)	20/200/1000 litre	\$80.50/\$660/\$3,085
U-turn (nitrate reducer)	20/200 litre	\$112.20/\$910
Supacrop Sprayable Trace Elements		
Sprayable Boron	5/20 litre	\$60/\$220
Sprayable Calcium	20/200 litre	\$86/\$695
Sprayable Magnesium	20/200 litre	\$118/\$1,065
Sprayable Manganese	5/20/200 litre	\$27.50/\$95/\$865
Sprayable Molybdenum	1/5/20 litre	\$40/\$197/\$778
Sprayable Zinc	5/20/200 litre	\$26.50/\$70/\$570
Soluble Sulphur	20/200 litre	\$104/\$880
Calphos (calcium & phosphorus)	20/200 litre	\$122/\$1,100

Phosphorus Availability:

To give an indication of the quickly available (to plants) phosphorus content of fertilisers, a citric solubility test is required for all phosphate fertilisers in New Zealand. With some fertilisers, particularly those containing reactive phosphate rock (RPR), the amount of plant available phosphorus is greater than indicated by the citric acid test. For such fertilisers *Ravensdown Fertiliser Co-op Ltd* has provided an estimate of the potentially available phosphorus (PAP). They state that the PAP estimates take into account slowly available phosphorus, which is a better guide to the value of the fertiliser for use on pasture.

Product:	Total P	Cit.sol.P	PAP
Superphosphate 0-9-0	9	8.5	8.8
15% Potash Super 0-8-8	8	7.2	7.6
Cropmaster DAP 18-20-0	20	20	20
Longlife Super 0-10-0	10	6.8	10
North Carolina RPR 0-13-0	13	4	13

Sulphur Availability:

The sulphur contained in fertilisers may be either quickly or slowly available (or intermediate) depending on the blend of sulphate sulphur (quick) and elemental sulphur (slow).

Fertilisers with only quickly available (sulphate) sulphur include: super phosphate, long-life super, potash super mixes and 'crop' or 'nitrogen' type fertilisers based on ammonium sulphate or potassium sulphate.

Fertilisers with mainly slowly available sulphur are those containing elemental sulphur such as RPR plus sulphur mixes, PAPR plus sulphur mixes and sulphur bentonite prills.

Fertilisers which have a mix of both quickly available and slowly available sulphur include sulphur supers and longlife sulphur supers.

Trace Elements:

As a guide the table below indicates the amount of additive (containing the trace element) which would normally be added to one tonne of fertiliser mixture, and the amount of the element which would be supplied (to one hectare) if the application rate was 250kg per hectare.

Trace Element	Form of Additive	Additive per tonne	Element per ha
Boron	Sodium borate	25kg	0.94 kg B per ha
Cobalt	Cobalt sulphate	1.5kg	0.053kg Co per ha
Copper	Copper sulphate	25kg	1.56 kg Cu per ha
Selenium	Sodium selenate prills	4kg	0.01 kg Se per ha
Molybdenum	Sodium molybdate	0.25kg	0.025kg Mo per ha
Other additives available are Ferrous Sulphate, Zinc Sulphate, Manganese Sulphate, Magnesium Oxide, and Sodium Chloride.			

2.6.2 Lime

Austin Chalk Co Ltd: (Canterbury)

	\$ per tonne
Agricultural Lime	\$17 to \$18
Ag Gypsum	\$185
Quick Lime	\$360
Fine Sprayable	\$150 to \$220
Hydrated	\$280

Hatuma Lime Co Ltd:

	\$ per tonne
Agricultural Lime	\$16.50
Cropfine Lime	\$20.00
80% Dicalcic Phosphate 20% Cropfine	\$115.70
60% Dicalcic Phosphate 40% Cropfine	\$92.45
40% Dicalcic Phosphate 60% Cropfine	\$69.25
40% Dicalcic Phosphate (including 10% Sulphur) 60% Cropfine	\$73.40
20% Dicalcic Phosphate 80% Lime	\$43.20

McDonald's Lime Ltd: (Otorohanga)

	\$ per tonne
Agricultural Lime	\$17.00
- bulk	\$70.00
- 1 tonne bulk bags	\$80.00
- 25kg bags	\$120.00
Calcimite®	\$241.00
- 25 kg bags	
Hydrated Lime	
- 20 kg bags	

Parkside Quarries Ltd: (Oamaru)

Agricultural Lime	- bulk price, ex-works Weston	\$16.50 per tonne
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Ravensdown Lime:

	\$ per tonne
Agricultural Lime ex-Ravensdown lime quarry	
Southland	\$19.50
Canterbury	\$19.50
Nelson	\$19.50
Hawkes Bay	\$16.50
Waikato	\$15.50
Dargaville	\$11.00

Livestock Supplies:

Standard Lime	per kg	\$0.06
Lime – Burnt	40 kg	\$12.50
Lime – Hydrated/Calcimite	per kg	\$14.50/\$0.20

Rural Research Ltd:

PhloLime – rapid action fine lime suspension	Nth Is. Price	Sth Is. Price
PhloLime	\$90.00	\$90.00
PhloLime	\$300.00	\$385.00

2.6.3 Dolomite

Indicative prices for dolomite are as follows:

South Island prices via Ravensdown Fertiliser Co-Operative Ltd:	
ex Golden Bay Plant	\$42.00 per tonne
ex Nelson	\$67.30 per tonne

ex Hornby	\$79.50 per tonne
ex Seadown	\$92.00 per tonne

North Island prices via *Ravensdown Fertiliser Co-operative Ltd*:

ex New Plymouth	\$93.00 per tonne
ex Papakura	\$96.00 per tonne
ex Napier	\$115.00 per tonne
ex Wanganui (Ocean Terminals)	\$89.00 per tonne

Golden Bay Dolomite can be sourced from all major fertiliser companies. Prices range depending on location. In certain cases rebates are available through the fertiliser companies.

Livestock Supplies:

Dolomite	\$0.40 per kg
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2.6.4 Fertiliser Spreading/Application Costs

Ground Spreading

N.T. Wealleans Ltd. (Waikato)

kg/ha	(cwt/acre)	Price	kg/ha	(cwt/acre)	Price
60	(0.5)	\$137.50	900	(7.2)	\$16.95
80	(0.6)	\$103.10	1000	(8.0)	\$15.90
100	(0.8)	\$82.50	1100	(8.8)	\$14.60
150	(1.2)	\$55.00	1200	(9.6)	\$13.30
200	(1.5)	\$37.10	1300	(10.4)	\$12.55
250	(2.0)	\$33.85	1400	(11.2)	\$12.30
300	(2.4)	\$29.30	1500	(12.0)	\$12.10
350	(2.8)	\$26.60	1600	(12.8)	\$11.90
400	(3.2)	\$24.75	1700	(13.5)	\$11.65
450	(3.6)	\$23.80	1800	(14.3)	\$11.35
500	(4.0)	\$22.85	1900	(15.1)	\$11.05
600	(4.8)	\$21.35	2000	(15.9)	\$10.75
700	(5.6)	\$19.70	2250	(17.9)	\$10.10
800	(6.4)	\$18.25	2500	(19.9)	\$9.45

Note: Rates of application lower than 200 kg/ha are costed on a per ha cost (area charge) or \$8.25/ha/tonne.

Additional Charges:

Ploughed ground	10% above rate	High Analysis Fertiliser
Seeding	\$90 per hour	plus \$8.25 per ha (\$3.00) per acre
Cartage to farm	\$1.98/km/tonne	

Canterbury:

One contractor in Canterbury charges \$10 per hectare for the fertiliser to be carted and spread. Another charges \$5 to \$7 per hectare if a large truck is used and between \$9.50 to \$11 per hectare if a mini sower is used. Cartage is charged on top of these rates. A third contractor charges \$4 per hectare for spreading, \$16.50 per tonne for cartage ex Christchurch factory, with a minimum spreading charge of \$55.

Aerial Spreading:

The cost of aerial spreading of fertiliser varies greatly and depends very much on the location, condition of the airstrip, the rate of climb required, the weather and the rate of application. Most firms prefer to quote for individual situations rather than publish fixed rates. For the aerial (fixed wing) spreading of superphosphate, the following are approximate costs.

North Canterbury Contractor:

Superphosphate	\$40 to \$60 per tonne
Lime	\$25 to \$35 per tonne

The aerial (fixed wing) rate for liquid fertiliser spreading is \$11 per ha, for jobs larger than 120 hectares, and \$24 for jobs smaller than 20 hectares.

Bay of Plenty Contractor:

Superphosphate	\$40 to \$43 per tonne
Lime	\$30 to \$33 per tonne

Note: Discounts are available for large quantities.

Helicopter work

Helicopter spreading depends on the application rate and area.

Canterbury	\$120 to \$300 per tonne
Waikato	\$180 to \$200 per tonne
Hawkes Bay	\$950 to \$1,150 per hour
Bay of Plenty	from \$1,175 per hour

2.6.5 Testing of Soil, Water, Plant and Feeds

Agriculture N.Z.:

Consultancy, Soil Fertility, and Fertiliser Recommendation:

Charging for this service may vary from district to district. However, the following may be used as an approximate guide:

Prices range from \$98.00 (one sample per property) to \$590.00 (10 samples per property) with additional samples costing \$45.00 each. Service includes soil test and fertiliser advice according to crop or pasture type etc. These prices apply where the farmer collects the soil samples and delivers them to an *Agriculture NZ* office. Note that most fertiliser companies tend to do this for free.

Analytical Services Laboratory: (a division of R.J.Hill Laboratories Ltd.)

Soil Samples:		Price
Basic Soil Test	pH, P, K, Ca, Mg, Na, CEC, Base saturation, Volume weight	\$36.00
Additional Soil Tests	Sulphate-S, soluble salts, organic matter, available-N, reserve-Mg, Al, B	\$11 each
	Resin P, Total-N, Total-P	\$15 each
	Organic-S (Sulphate-S required), plus Anion storage capacity, P retention	\$13 each
	Reserve P	\$18
	Trace elements profile (Mn, Zn, Cu, Co)	\$20

Leaf Tissue/Pasture Samples:		
Basic Plant Test	N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B	\$57
Additional Plant Tests	Mo, Co, Se, Cl, Sulphate-S	\$11 each
	Iodine	\$17
Nutrient Solution Samples:		
Basic NFT Profile	pH, CF, Nitrate-N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B, Cl,	\$40
Additional NFT Tests	MO, Ammonium-N, Silicate	\$11 each
Growing Media Samples:		
Basic Potting Media Profile	pH, conductivity, P, K, Mg, Ca, Na, Nitrate-N, Ammonium-N	\$40
Additional Potting Media Tests	Trace elements (Fe, Mn, Zn, Cu, B)	\$30
	Physical analysis (air filled porosity and water holding capacity)	\$70
	Nitrogen Draw-down Index	\$70
Feedstuff Samples:		
Basic Feed Test	Dry matter, protein, fibre, ash, digestibility (estimated), metabolisable energy (estimated)	\$67
Additional Feedstuff Tests	PH, Ammonium-N/Total N ratio	\$11 each
Nutrient Profile	P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B	\$58

Note: The above prices are valid until 31 July 2002.

Analytical Research Laboratories Ltd:

Soil Analysis Suites:		Price
Basic Horticultural Soil Test	pH, Olsen P, K, Ca, Mg, Na, Bulk density, CEC, Base saturation	\$35
	Including mineralisable nitrogen	\$45
Basic Pastoral Soil Test	pH, Olsen P, K, Ca, Mg, Na, Bulk density, CEC, Base saturation, plus Sulphur	\$45
Pastoral Soil Plus Organic Sulphur	pH, Olsen P, K, Ca, Mg, Na, Bulk density, CEC, Base saturation, Sulphate, Organic sulphur	\$60
Additional Soil Tests		\$10
Plant Analysis Suites:		
Complete Pastoral	N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B, Mo, Se, Co	\$85
Pasture Performance	N, P, K, S, Ca, Mg, Na, Mo plus ratios	\$45
Cropping/Horticulture	N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B	\$55
Dairy Nutrition	N, P, K, S, Ca, Mg, Na	\$45
Animal Health	Fe, Mn, Zn, Cu, Mo, Se, Co	\$55
Additional Plant Tests	Co, Se, Mo, I, Cl, Al	Approximately \$10 each
Water Analysis Suites:		
Domestic Water Analysis	pH, conductivity, alkalinity, Ca, Mg, Na, Fe, Mn, Zn, Cu, B, K, Cl, CO ₂ , hardness, bicarbonate, total dissolved solids, NO ₃ -N, NH ₄ -N	\$95
Bacteriological Analysis	Total and faecal coliforms	\$30

Irrigation Water Analysis	pH, conductivity, alkalinity, Ca, Mg, Na, Fe, Mn, Zn, B, K, Cl, CO ₂ , hardness, bicarbonate, total dissolved solids	\$85
Potting Mix Analysis:		
Standard Potting Mix Analysis	pH, conductivity, P, K, Mg, Ca, Na, NO ₃ -N, NH ₄ -N	\$85
Potting Mix & Trace Elements	pH, conductivity, P, K, Mg, Ca, NO ₃ -N, NH ₄ -N, Cl, Cu, Mn, Zn, Fe, B, Na	\$120
Additional Tests	Air filled porosity and water holding capacity	\$75
Additional Test	Nitrogen Draw-down index	\$110
Feed Quality Analysis:		
Basic Feedstuff Profile	Dry matter, crude protein, lactic acid, crude fat, fibre, ash, acid digestible fibre (ADF), neutral digestible fibre (NDF), available carbohydrate SSS in vitro, digestibility estimated ME, pH, ammonia-N, ammonia-N as a fraction of N.	\$65
Effluent Analysis:		
Effluent for Discharge to land	Total nitrogen, K, Mg, Ca, Na, Phosphate-P	\$67
Analysis for Discharge	Total Kjeldahl nitrogen (TKN), total solids, settleable solids, suspended solids BOD5, COD, NO ₃ -N, NH ₄ -N	\$134
Compliance		

Note: *Ravensdown* shareholders receive a 15% discount.

A North Island firm has the following charges. Other tests can be done when clients ask.

Basic test with no recommendations	\$99
Full audit test with recommendations	\$180
Additional test for cobalt	\$15
Additional test for molybdenum	\$15
Full organic kiwifruit test	\$250
Solubility test	\$150

2.7 FREIGHT AND CARTAGE

2.7.1 Road Transport Rates

Road Freight rates are normally dependent on the type of goods and distance to be carted. The following figures are estimates for the South Island, areas north of the Waitaki River. In other areas the rates may differ slightly. Publication of these is intended as a guide only; each operator determines their own rates on parameters according to their individual costs.

(i) General Freight:

Estimated 2001 rates (\$ per tonne unless otherwise stated):

(km)	10	30	40	50	60	70	80
General Goods	\$18.71	\$30.94	\$36.10	\$40.68	\$45.03	\$48.77	\$51.71
Bagged lime/fertiliser	\$15.54	\$23.81	\$27.27	\$30.55	\$33.81	\$36.92	\$47.37
Bulk Lime	\$6.53	\$10.55	\$12.36	\$14.04	\$15.76	\$17.10	\$18.46
Bulk Fertiliser	\$10.23	\$18.15	\$21.92	\$25.33	\$28.71	\$31.69	\$34.47
Wool (per bale)	\$3.74	\$5.71	\$6.63	\$7.61	\$8.47	\$9.26	\$9.78
Bulk Grain	\$10.78	\$17.75	\$20.76	\$23.32	\$25.72	\$27.93	\$30.03
Metal	\$11.52	\$23.28	\$28.19	\$33.47	\$38.68	\$44.04	\$49.31

(ii) Small Goods Rates:

Weight	up to 16km	17 to 32km	33 to 48km	49 to 64km	over 64km
Up to 32 kg	\$6.39	\$6.39	\$6.39	\$6.39	\$6.39
102 kg	\$6.39	\$6.96	\$7.59	\$9.53	\$11.82
508 kg	\$14.19	\$19.02	\$23.71	\$28.40	\$32.35
965 kg	\$22.80	\$30.70	\$37.96	\$45.04	\$52.03

(iii) Stock (dollars per head):

(km)	10	30	50	70	100	130	160
Store lambs	-	-	-	-	\$0.95	\$1.09	\$1.24
Prime lambs	\$0.57	\$0.86	\$1.14	\$1.43	\$1.71	\$1.90	\$2.19
Hoggets	\$0.62	\$0.59	\$1.19	\$1.47	\$1.76	\$1.95	\$2.23
Store sheep	-	\$0.67	\$0.86	\$1.14	\$1.43	\$1.71	\$2.00
Fat sheep	\$0.67	\$0.86	\$1.33	\$1.90	\$2.38	-	\$2.85
Weaner cattle	-	-	\$5-\$6	-	-	-	\$10-\$12
Yearlings	-	-	\$6-\$7	-	-	-	\$12-\$14
18 mth cattle	-	\$6.18	\$8.08	\$9.98	\$11.88	\$13.78	\$15.68
2 Year cattle	\$6.65	\$8.55	\$10.45	\$12.35	\$14.25	\$16.15	\$18.05
Prime cattle	\$7.60	\$9.50	\$11.40	\$13.30	\$15.20	\$17.10	\$19.00
Deer	-	-	\$4.75	\$6.65	\$8.55	\$9.50	\$10.45

A limited discount in the above prices could be expected for large lines.

(iv) Timber:

See *Section 2.22.3* for costs of transportation of timber.

2.7.2 Railway Transport Rates

Railfreight rates are confidential and are normally dependent on the type of goods, the size of the consignment and the distance involved.

2.7.3 Inter-Island Ferry Freight Rates

These freight rates can vary greatly and are confidential to *Tranz Rail Ltd.* The rates can vary according on the goods being freighted, the amount and often the customer's ongoing business relationship is considered.

2.7.4 Air Freight Rates

Skyroad Express:

SameDay	Minimum Charge	per kg thereafter
Airport to Airport	Maintrunk - \$70 for first 2 kg	\$8.00
	Provincial - \$90 for first 2 kg	\$9.00

Maintrunk: Consignment must originate and be destined for Auckland, Wellington, Christchurch or Dunedin.

Domestic Kilogram Rates Ex-Christchurch	Overnight Express	48 Hour
Whangarei	\$4.35	\$3.20
Auckland/Hamilton/Tauranga/Whakatane/Rotorua	\$4.25	\$3.10
Gisborne/New Plymouth/Napier/Wanganui	\$3.10	\$2.25
Palmerston North/Wellington	\$3.10	\$2.25
Nelson/Blenheim	\$2.05	-
Greymouth	\$1.85	-
Timaru	\$1.75	-
Oamaru/Queenstown/Dunedin/Invercargill	\$2.45	-
Basic Charge	\$12.00	\$12.00
Minimum Charge (within an island)	\$20.00	N/A
Minimum Charge (between the islands)	\$30.00	\$30.00

Air New Zealand: International Rates quoted ex Christchurch ¹ and Auckland ²

Destination	Foodstuffs (per kg)					Flowers/Bulbs/Seeds (per kg)	
	Normal Rate/kg	100kg min	250kg min	500kg min	1000kg	45kg Min	100kg min
Sydney	\$4.22	\$2.24	-	\$1.43	-	\$2.09	-
Melbourne	\$4.22	\$2.24	-	\$1.43	-	\$2.09	-
Brisbane	\$4.22	\$2.24	-	\$1.43	-	\$2.09	-
Perth	\$7.48	-	\$2.49	\$2.19	-	\$3.50	-
Singapore	\$12.87	\$3.23	-	\$2.90	\$2.75	-	\$3.53
Hong Kong	\$14.18	\$3.15	\$3.01	-	\$2.78	\$3.97	-
London	\$18.60	\$5.00	-	-	-	\$5.55	\$5.16
Los Angeles ¹	\$18.31	\$4.56	-	-	\$4.03	\$4.17	(250kg)
Los Angeles ²	\$17.46	\$4.06	-	-	\$3.53	\$3.67	(250kg)
Tokyo	\$10.98	\$4.43	-	-	-	\$4.40	-

2.8 SEEDS, PLANTS AND PROPAGATION

2.8.1 Seeds – Pasture

			Price per kg		
	Bare	Prillcote	Super Strike	Gaucho	Ultra Strike
<i>Ryegrass</i>					
Archie	\$4.05	-	-	-	-
Aries HD	\$5.90	-	\$8.25	\$9.70	-
Aries HD AR1	\$7.12	-	-	-	-
Banquet™	\$5.90	-	\$8.35	\$9.85	-
Bronsyn	\$5.80	-	\$8.25	\$9.55	-
Bronsyn AR1	\$7.00	-	-	-	-
Concord	\$3.65	-	\$6.10	\$7.50	-
Cordura	\$4.05	-	\$6.45	\$7.90	-
Dobson	\$5.70	-	\$8.10	\$9.55	-
Ellett	\$5.25	-	\$7.65	\$9.10	-
Embassy	\$5.20	-	\$7.55	\$9.05	-
Embassy AR1	\$6.45	-	-	-	-
Exalta	\$3.65	-	\$6.00	\$7.50	-
Feast II™	\$4.85	-	\$7.30	\$8.80	-
Flanker	\$4.85	-	\$7.30	\$8.75	-
Grasslands Pacific	\$4.75	-	\$7.20	\$8.70	-
Greenstone - endofree	\$3.45	-	-	-	-
- endosafe	\$4.30	-	-	-	-
Impact	\$6.05	-	\$8.50	\$9.90	-
Impact AR1	\$7.30	-	-	-	-
Italian - Uncertified	\$1.40	-	-	-	-
Marbella _{Sud} Italian	\$4.00	-	-	-	-
Maverick Gold	\$5.05	-	\$7.50	\$9.00	-
Meridian	\$5.40	-	-	-	-
Meridian AR1	\$6.60	-	-	-	-
Moata - 1 st Generation	\$1.80	-	-	-	-
- Uncertified	\$1.50	-	-	-	-
Nevis	\$5.80	-	\$8.20	\$9.65	-
Nui - 1 st Generation	\$1.60	-	-	-	-
- Zero Nui	\$2.65	-	-	-	-
- Super	\$2.80	-	-	-	-
Quartet AR1	\$7.12	-	-	-	-
Ruanui -1 st Generation	\$1.80	-	-	-	-
Samson - High Endophyte	\$5.10	-	-	-	-
- Low Endophyte	\$4.75	-	-	-	-
- AR1 Endophyte	\$6.35	-	-	-	-
Sterling LE	\$5.20	-	-	-	-
Supreme ^{Plus} HE	\$4.15	-	-	-	-
Supreme ^{Plus} LE	\$4.15	-	-	-	-

	Bare	Prillcote	Price per kg		Ultra Strike
			Super Strike	Gaucha	
Supreme ^{Plus} AR1	\$5.45	-	-	-	-
Tabu	\$5.00	-	-	-	-
Tama - 1 st Generation	\$1.60	-	-	-	-
Tolosa	\$6.90	-	-	-	-
Vedette	\$5.70	-	\$8.10	\$9.55	-
Vedette AR1	\$6.50	-	-	-	-
Yatsyn	\$5.40	-	\$7.75	\$9.15	-
White Clovers					
Aran	\$15.00	-	\$12.80	-	-
Challenge	-	-	\$10.30	-	-
Demand	-	\$8.35	\$9.80	-	-
Kopu II	-	-	\$12.75	-	-
Nomad	\$8.20	-	\$7.95	-	-
NuSiral	\$9.40	-	-	-	-
Prestige	-	-	\$9.15	-	-
Prop	\$8.00	\$6.70	\$8.45	-	-
Sustain	\$12.00	\$8.70	\$10.70	-	-
Tahora	-	\$7.25	\$9.15	-	-
Tribute	\$10.40	-	\$9.15	-	-
Red Clovers					
Colenso	-	-	\$9.80	-	-
G 27	-	\$11.45	\$9.85	-	-
Pac 19	\$9.35	\$8.45	-	-	-
Pawera - 1 st Generation	\$10.00	-	-	-	-
Sensation	\$9.70	\$9.10	\$7.60	-	-
Subterranean Clovers					
Goulburn	\$6.30	-	-	-	-
Leura	-	\$6.45	\$8.30	-	-
Caucasian Clovers					
Endura/Kura	-	\$19.95	-	-	-
Annual Clovers					
Bolta Balansa	-	\$7.95	-	-	-
Lightening Persian	-	\$7.95	-	-	-
Strawberry Clovers					
Onward	\$9.45	\$8.70	-	-	-
Cocksfoot					
Ella	\$6.70	-	-	-	-
Kara	\$6.70	\$4.90	\$9.10	\$10.65	-
Saborto	\$5.10	\$3.80	\$7.45	\$8.95	-
Tekapo	\$6.00	\$4.55	\$8.50	\$10.00	-
Wana	\$5.70	\$4.15	\$8.10	\$9.55	-
Tall Fescues					
Advance	\$9.05	\$10.75	-	\$9.15	-
Au Triumph	-	-	\$9.85	-	-

			<u>Price per kg</u>		
	Bare	Prillcote	Super Strike	Gaucha	Ultra Strike
Dovey	\$9.00	-	\$11.50	-	-
Vulcan	-	-	\$11.05	-	-
Quantum	-	-	\$10.95	-	-
<i>Other</i>					
Matua Prairie Grass (Easy drill)	\$3.65	-	-	-	-
Gala Brome	\$4.75	-	\$7.25	\$8.60	-
Pasture Brome Bareno	\$3.90	-	-	-	-
Maku Lotus	\$20.00	\$16.10	-	-	-
Sunrise Lotus	\$20.00	-	-	-	-
Maru Phalaris	\$9.75	-	-	-	-
Massey Basyn	\$11.95	\$7.35	-	-	-
Melita Yorkshire Fog	\$8.00	-	-	-	-
Spectra Hybrid Seradella	\$10.00	-	-	-	-
Charlton Timothy	\$6.80	-	\$5.15	-	-
Vetch	\$2.35	-	-	-	-
Puna Chicory	\$13.70	\$15.90	\$12.05	-	-
Forager Chicory	\$15.35	\$13.50	\$17.85	-	-
<i>Power Pak Mixes</i>					
Dryland	\$156.00	-	\$205.25	\$229.25	-
Finishing	\$164.25	-	\$210.25	\$237.25	-
Rotational	\$161.25	-	\$209.25	\$235.23	-
Summer Plus	\$161.00	-	\$210.50	\$221.00	-
Winter Plus	\$140.00	-	\$192.00	\$221.00	-
<i>Lucerne</i>					
Kaituna	-	-	\$16.30	-	-
Otaio	\$13.95	\$14.25	-	-	-
Torlesse	\$15.15	\$15.35	-	-	-
Wairau	\$8.75	-	-	-	-
<i>Kales</i>					
Gruner	\$10.95	-	\$18.15	\$26.20	\$25.10
Kestrel	\$10.95	-	\$18.15	\$26.20	\$25.10
Proteor	\$10.95	-	\$18.15	\$26.20	\$25.10
<i>Rapes</i>					
Bonar	-	-	\$13.10	\$26.20	\$20.60
Emerald Giant	\$4.85	-	\$12.65	\$20.65	\$19.45
Giant	\$2.50	-	-	-	-
Maxima Plus	-	-	\$14.10	\$24.00	\$21.70
Rangi	\$2.50	-	-	-	-
Wairangi	\$4.60	-	\$12.40	\$19.90	\$19.00
<i>Forage Brassica</i>					
Pasja	-	-	\$14.95	\$24.00	\$24.80
Wairoa	\$6.35	-	\$12.85	\$21.65	\$20.70
<i>Swedes</i>					
Doon Major	\$7.85	-	\$17.65	\$23.10	\$23.70

	Bare	Prillcote	Price per kg		
			Super Strike	Gaucha	Ultra Strike
Dominion	\$9.60	-	-	\$20.85	-
Highlander	-	-	\$18.15	\$23.65	\$24.00
Major Plus	-	-	\$19.40	\$24.50	\$23.70
Winton	-	-	\$23.95	\$31.30	\$30.70
Turnips					
Appin	\$8.00	-	\$17.75	\$23.25	\$22.25
Barkant	-	-	\$22.20	\$27.45	\$26.50
Barabas	\$10.00	-	\$13.70	-	-
Green Resistant	\$7.85	-	\$17.65	\$23.10	\$22.15
Green Globe	-	-	\$17.65	\$23.10	\$22.15
Manga	\$7.85	-	\$17.65	\$23.10	\$22.15
York Globe	-	-	\$17.65	\$23.10	\$22.15

2.8.2 Seeds - Forage Cultivars

Cereals

Agricom NZ Ltd:

Hokonui Forage Oats	\$745 per tonne
Stampede Forage Oats	\$745 per tonne
Doubletake Multigraze Triticale	\$745 per tonne
Rocket Triticale	\$745 per tonne

Agri-seeds:

Hatrick Greenfeed Oats	\$0.90 per kg
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Anchor-mart Pasture Care

Black Seed/Massif Oats	\$1.20/\$1.78
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Peas

Magnus (silage)	\$750.00
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Maize

Anchor-mart Pasture Care

Pioneer Hybrid Maize – per 80,000 viable kernels	\$276.00 to \$284.80
Forage King Greenfeed Maize 25kg	\$102.55
Corson Greenfeed Maize 10 kg	\$36.50

Turf Grasses

Ryegrass:

	Bare	Superstrike
Seville	\$5.95	\$8.45
Club Choice (Seville and Cathedral Mix)	\$5.50	\$8.00
Imagine	\$7.00	\$9.50

Fescue Turf :

Red	\$7.75	\$10.25
Chewings	\$7.75	\$10.25
Bridgeport	\$10.25	\$12.75

Browntop:		
Egmont	\$16.33	\$18.83
New Zealand	\$8.75	\$11.25

2.8.3 Seeds - Arable

	Price per tonne
Cereals:	
Precleaned White Oats	\$410.00
Amuri Oats - Uncertified	\$500.00
Black Oats	\$500.00
Caravelle Oats	\$600.00
Charisma Oats - certified	\$600.00
Monad Wheat (milling)	\$710.00
Sapphire Wheat (milling)	\$760.00
Commando Wheat	\$700.00
Otane Wheat	\$710.00
Regatta Barley	\$750.00
Fleet Barley	\$750.00
Ryecorn uncertified	\$700.00
Peas:	
Marrowfat	\$880.00
White	\$700.00
Blue	\$680.00
Maple (Whero)	\$750.00
Prussian	\$680.00

2.8.4 Seeds - Process Crops

Peas	\$1.18 to \$1.73 per kg
Broad Beans	\$1.87 per kg
Beans	\$6.98 to \$11.34 per kg
Dicing Carrots	\$64 per kg

2.8.5 Coated Seed

See also *Section 2.8.1* for coated seed prices

Seed Coating - Drill

Seed coating can include insecticide/fungicide/N-fixing bacteria/Molybdenum/ Growth enhancement factors and bird repellency.

Wrightson Seed Ltd:

	Seed/Coat ratio	\$ per kg (coated weight)
Superstrike		
Brassica	1:0.10	\$9.75
Lucerne	1:0.25	\$3.65
Ryegrass	no increase	\$2.45
Clovers	1:0.75	\$3.90

Seed Coating - Oversowing

Seed coating can include lime coat/fungicide/N-fixing bacteria.

Wrightson Seed Ltd:

Prillcote	Seed/Coat ratio	\$ per kg (coated weight)
Ryegrass	1:1	\$1.50
Cocksfoot	1:1	\$1.65
Clovers	1:0.75	\$1.90
Lotus	1:0.75	\$1.95

2.8.6 Vegetable Seeds

Vegetable seeds vary quite markedly in price depending on cultivar and quantity ordered. In the majority of cases, the huge range in price for a particular vegetable is due to the high cost of hybrid species. The following are estimates only. (*Webling & Stewart Seeds*).

	Standard	Hybrid
Beans - Broad	\$145 per 25 kg	-
- Dwarf	\$185 to \$550 per 25 kg	-
- Butter	\$225 per 25 kg	-
- Runner	\$300 to \$425 per 25 kg	-
Beetroot	\$48 to \$132 per 500 g	\$80 per 50,000s
Broccoli	-	\$660 to \$1050 per 100,000s
Brussel Sprouts	-	\$440 per 10,000s
Cabbage	-	\$280 to \$520 per 50,000s
Cabbage - Winter	-	\$249 per 10,000s
	-	\$240 to \$285 per 10,000s
	-	\$132 to \$234 per 10,000s
	-	\$140 per 100g
Carrot	\$550 to \$1,500 per 10kg	\$360 to \$650 per 500,000s
Carrot – Specialist	\$230 to \$650 per 500,000s	-
Cauliflower	\$140 to \$170 per 500g	\$650 to \$815 per 50,000s
Cauliflower – Winter	-	\$660 per 10,000s
	\$515 to \$760 per 10,000s	-
Celery	\$50 to \$55 per 100 g	\$120 per 10,000s
Chinese Greens	\$60 to \$150 per 100g	-
Cucumber – Slicer	-	\$35 to \$112.50 per 100g
Cucumber – Mini	-	\$63 per 100s
Cucumber – Telegraph	-	\$755 per 1,000s
Egg Plant	-	\$20 to \$755 per 1,000s
Endive	\$50 per 25g	-
Fennel	\$24 to \$60 per 2,500s	-
Garlic	\$16.50 per kg	-
Gherkin	-	\$50 per 2,000s
Leek	\$160 to \$390 per 500g	-
Lettuce	\$160 to \$256 per 500g	-
	\$275 to \$435 per 100,000 pills	-

		Standard	Hybrid
Melon	- Gourmet	-	\$42 to \$59 per 100s
	- Honey Dew	-	\$350 per 2,000s
	- Rock	-	\$250 to \$390 per 5,000s
	- Water	\$72 per 500g	\$210 to \$322 per 100g
Onion	- Brown	\$1,050 to \$4,800 per 10kg	-
		\$170 to \$624 per 500g	\$850 per 250,000s
		\$570 to \$880 per 5kg	-
Parsley		\$150 per 500g	-
Parsnip		\$540 to \$700 per 5kg	\$1,800 to \$2,600 per 5kg
Pea		\$80 to \$240 per 25kg	-
Pepper		-	\$50 to \$795 per 1000s
Pumpkin		\$60 per 500g	\$152 to \$220 per 500g
Radish		\$8 to \$18 per 100 g	\$70 per 100 g
Silver Beet		\$400 to \$530 per 6kg	-
Spinach		-	\$300 to \$420 per 5kg
Squash		\$70 to \$80 per 500 g	\$216 to \$375 per 500 g
Sweet Corn		\$730 to \$790 per 10kg	-
Tomato	- Determinate	-	\$60 to \$100 per 10g
		\$12 to \$14 per 10g	\$40 to \$270 per 1,000s
Turnip		\$22.50 per 500 g	\$460 per 500g
Zucchini		-	\$45 to \$285 per 500 g

2.8.7 Flower Seeds/Bulbs/Plants

Seeds and Plants:

There can be a wide range in cost of flower seeds, depending on the variety of seed.

The following are indicative prices only.

Green Harvest Pacific Ltd:

Amaranthus varieties	95c to \$2 per g, \$5.70 to \$26 per 1000 seeds
Aster varieties	\$1 to \$9.95 per g
Calendula varieties	\$0.35 to \$0.80 per g
Campanula varieties	\$0.90 to \$85.00 per g
Delphinium varieties	\$3.50 to \$10.30 per g
	\$39.95 to \$285 per 1000 seeds
Dianthus varieties	\$0.95 to \$49.00 per g
Echinacea varieties	\$0.75 to \$3.30 per g
Freesia varieties	\$10.80 per g
Helianthus (Sunflowers) varieties	\$1.10 to \$2.50 per g
	\$50.00 to \$60.00 per 1000 seeds
Hibiscus varieties	\$9.00 per g
Larkspur varieties	\$0.45 to \$3.00 per g
	\$27.50 to \$30.00 per 1000 seeds
Lisianthus varieties	\$38.00 to \$57.00 per 1000 seeds
	\$500.00 per g Rose Double (Raw Seed)
Marigold varieties	\$145 per 1000 seeds
Statice varieties	\$5.10 per g
Stock varieties	\$13.50 to \$36.95 per g

Bulbs:*Green Harvest Pacific Ltd:*

Anemone varieties	\$0.35 to \$0.64 each
Ranunculus varieties	\$0.35 each

Blue Mountain Gardens:

	Per 10 bulbs
Brodiaea	\$2.00
Camassia	\$6.50
Colchicum varieties	\$7.00 to \$40.00
Crocus varieties	\$3.00 to \$3.50
English Bluebell	\$3.50
Erythronium varieties	\$5.50 to \$50.00
Fritillaria	\$50.00
Snowdrop	\$14.00
Iris varieties	\$2.80 to \$40.00
Leucojum	\$6.00
Narcissus varieties	\$3.20 to \$20.00
Tulip varieties	\$4.00 to 6.50

Plants for Cut Flowers*Green Harvest Pacific Ltd:*

Agapanthus varieties	\$2.50
Gypsophila varieties	\$2.90 to \$3.75
Hydrangeas varieties	\$2.50 to \$ 4.75
Statice varieties	\$2.80
Viburnum varieties	\$2.00 to \$2.25

Allenton Nurseries Ltd: (orchardists and trade suppliers only)

Forsythia	\$5.10
Lilac (Syringa) varieties	\$8.25
Viburnum	\$4.40 to \$6.10

Rose plants 2 yr old P.B.6.5 (<i>Kauri Creek Ltd.</i>)	\$7.70
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2.8.8 Fruit Trees and Plants

(see also *Section 2.22.1* for shelter plants)

Fruit Trees:*Allenton Nurseries Ltd: (orchardists and trade suppliers only)*

Discount available on orders over 1,000 trees (5%).

Apples	\$8.25 to \$9.25
Apricots	\$8.75
Nectarines	\$8.75
Peaches	\$8.75
Plums	\$8.75

Pears	\$8.40
Cherries	\$9.15
Quinces	\$8.75

Copperfield Nurseries:

Grapefruit	\$8.90
Lemons	\$5.50 to \$8.90
Limes	\$8.90 to \$9.90
Mandarins	\$8.90 to \$9.90
Oranges	\$8.90
Tangelos	\$8.90
Tangors	\$8.90
Plums	\$8.50
Feijoa Sellowiana PB 6.5	\$3.50

Note: Nett Bagged F.O.R. Tauranga – minimum order 10 trees. All on Trifoliata rootstock.

Harrisons Trees:

	Grade	Retail prices
Apples on MM106	120 to 160 cm	\$8.90
Apples on M26 Dwarf	90 to 120 cm	\$8.90
Apricots	90 to 120 cm	\$8.90
Cherries – compact Stella	120 to 160 cm	\$8.90
Figs	90 to 120 cm	\$5.95
Nectarines	120 to 160 cm	\$8.90
Peaches	120 to 160 cm	\$8.90
Pears on Quince rootstock	90 to 120 cm	\$9.85
Plums	120 to 160 cm	\$8.90
Quinces	120 to 160 cm	\$8.90

The above prices are wholesale rates if a minimum of 5 of a variety is purchased.

Waimea Nurseries: (Nelson)

Feijoa varieties	\$8.30 to \$9.50 each
Fig varieties/Loquat/Nashi – Asian Pear	\$9.40 each
Persimmon	\$18.00 each

All prices for 5 to 24 trees of one variety. Discounts apply for larger orders. Minimum order 25 trees.

Tharfield Nurseries: (Te Puna)

Banana Mons Mari	\$8.50
Casana	\$5.25
Casimiroa varieties	\$15.00
Fig varieties	\$6.95
Guava varieties	\$5.25 to \$5.95
Loquat	\$9.95
Mountain Pawpaw	\$8.50
Pepino	\$5.25

Kauri Creek Ltd.: (wholesale)

Citrus trees 2yr old P.B.12	\$8.90
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Nut Trees:

Waimea Nurseries: (Nelson) (Prices are for 1 to 24 trees minimum order 25 trees)

Almond varieties	\$9.40
Dwarf Almond	\$11.90
Hazelnut varieties	\$7.90 to \$9.90
Pine Nut	\$7.40
Walnut varieties	\$27.00

Allenton Nurseries Ltd: (orchardists and trade suppliers only)

Almonds – Burbank/Monovale/Fabrin	\$8.75
Sweet Chestnut (Castanea)	\$8.80 each per 25
Hazelnut (Corylus)	\$8.50 each per 25
Walnut (Juglans regia)	\$5.50 to \$6.20 each per 25

Harrisons Trees:

	Grade	Retail prices
Almonds	120 to 160 cm	\$9.05
Black Walnut (1yr seedlings)	60 to 90 cm	\$2.36
Chestnuts (Budded)	160 to 200 cm	\$12.00
Hazelnuts (from layers)	60 to 90 cm	\$5.40
Hazelnuts (pollinators grafted)	40 to 60 cm	\$9.20
Walnuts from seed	120 to 160 cm	\$8.60
Walnuts grafted	40 to 60 cm	\$20.00

Note: The above prices are wholesale rates if a minimum of 5 of a variety is purchased.

Tharfield Nursery Ltd: (Te Puna)

Pine Nut	\$7.95
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Olives:

Allenton Nurseries Ltd: (orchardists and trade suppliers only)

Ascolana / Barnea / El Greco / Manzanilla / Souri / Verdale	\$5.95 each per 25
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Elliotts Wholesale Nursery:

Picholine	\$10.50 each
Barnea / Frantoio / J2 / Koroneiki	100 or less \$10.00 each
Leccino / Manzanillo / Mission	100 to 1000 \$8.50 each
Picual / Verdale	1000 plus \$7.65 each

Note: All plants are in pb6.5 bags.

Waimea Nurseries: (Nelson) (Prices are for 1 to 24 trees minimum order 25 trees)

Olive varieties (pb 6.5)	\$8.50 each
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Tharfield Nursery Ltd: (Te Puna)

Olives – Frantoio, J2, J5, Koroneiki, Manzanillo, Picual varieties	\$6.95
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Vines:*Hide-Away Nurseries: (Kiwifruit rootstock –18 month old plants)*

Females	Males	Price per hundred	Price per thousand
Haywood	Chieftian	\$9.30 to \$9.50 each	\$9.00 each
	M56	\$9.30 to \$9.50 each	\$9.00 each
New Varieties:			
Zespri Gold (Hort 16A)	CK02 (Sparkler)	\$9.30 to \$9.50 each	\$9.00 each
	CK03 (Meteor)	\$9.30 to \$9.50 each	\$9.00 each

Tharfield Nursery: (Te Puna)

Grape Albany Surprise	\$5.95
Kiwifruit Hayward	\$8.25
Passiflora - ligularis, quadrangularis	\$6.25
Tamarillo varieties	\$4.25

Berryfruit:*Waimea Nurseries (Nelson): (Prices are for 1 to 24 trees minimum order 25 trees)*

Cranberry	\$7.90 each
Currant	\$6.90 each
Mulberry	\$10.40 each

Tharfield Nursery (Te Puna):

	Variety	Price
Blackberry	Black Satin	\$6.95
Blackcurrant	Magnus	\$5.95
Blueberry	Blue Dawn, Blue Magic	\$7.50
Cape Gooseberry		\$5.25
Cranberry	Bergman, Crowley	\$5.95
Elderberry	Double Pete	\$8.95
Loganberry	Waimate	\$6.95
Raspberry	Selwyn	\$6.95

Harrisons Trees:

	Grade	Retail prices
Currants – red and black	40 to 60 cm	\$4.40
Grapes – on own rootstock	60 to 90 cm	\$5.10

The above prices are wholesale rates if a minimum of 5 of a variety is purchased.

2.8.9 Planting/Propagating Expenses

(See also *Section 2.11.5* for Packaging materials).

Athco Industries: (Auckland) Price per 1000

Standard Planters	- 0.5 to 5.0 litre – pack size 700 to 138	\$140 to \$520
Maxi-Planters	- 1.5 litre/1.9 litre - pack size 338/384	\$240/\$280
SV House Plant Pots	- 0.2 to 1.3 litre – pack size 2000 to 550	\$100 to \$320
RP House Plant Pots	- 0.1 to 1.1 litre – pack size 2600 to 540	\$130 to \$480
(includes saucer)		

Square 'Spacesaver' Pots	- 10 to 15cm - pack size 1150 to 300	\$120 to \$320
Commercial Round Pots	- 10 to 20cm - pack size 760 to 120	\$160 to \$600
Teku Lightweight Pots	- 8 to 12 cm – pack size 1000	\$55 to \$130
Palm Pots	- 1.3 litre	\$500
Plant Labels	- 125 mm (pack size 2000)	\$35
Plant Label Stakes	- pack size 3000	\$50
Orchid Tubs	- 8 litre/15 litre- pack size 50	\$1,650 to \$3,150
Large standard planters	- 4 to 30 litre - pack size 20 to 100	\$760 to \$8,000
Recycled plastic planters	- 6 to 18 litre - pack size 100 to 25	\$1,300 to \$3,500
Tubs with handles	- 43 cm/51 cm - pack size 5/3	\$7,500/\$11,500
Propagation & forestry tubes	- 5.5 cm/7 cm - pack size 1512/1848	\$70/\$100
Reko Bottomless	- 4.2 to 9.0 cm	\$80 to \$310
Propagation Tubes	- pack size 960 to 384	
Nursery Trays:	- pack size 190 to 25	\$0.80 to \$4.00 ea
	- Tube tray (pack size 50)	\$5.50 each
	- Tube tray legs – small/large	\$0.60/\$0.80 each
Seedling Punnets:	- Taglock 140 x 82 x 45	\$120
	- Standard 150 x 100 x 50	\$120
	- Maxi 7 cm/10 cm	\$140/190
Flight Punnets:	- Half Punnet to 12 Cavity	\$90 to \$210
Cell Trays	5 to 45 ml, 273 to 60 cells	\$4.50 to \$6.75 ea
Planterbags:	- PB ¾ to PB 8 - pack size-6000 to 1000	\$30 to \$135
	- PB 10 to PB 28-pack size-1200 to 500	\$130 to \$280
	- PB 40 to PB 150 - pack size- 400 to 50	\$365 to \$5,400
Easi-Lift planter bags	- 25 litre to 380 litre - pack size 10/5	\$2.10 to \$21.00ea

Cosio Industries Ltd:

Planter bags		
PB 3/4 to PB2	price per 1000	\$30.99 to \$45.62
PB3 to PB6.5	price per 1000	\$48.30 to \$93.78
PB8	price per 800	\$109.40
PB10/PB12	price per 1000	\$129.40/\$185.76
PB18/PB28	price per 700	\$150.80/\$182.85

Newfield Marketing:

Seedling Trays

Herkuplast Quick Pot Cell Trays:			
(<100 trays)	(100 to 975 trays)	(1000 to 4975 trays)	(5000+ trays)
<u>1 to 3 cartons</u>	<u>4 to 39 cartons</u>	<u>40 to 199 cartons</u>	<u>200+ cartons</u>
\$5.95 per tray	\$5.75 per tray	\$5.45 per tray	\$4.95 per tray

Transplant Systems Ltd:

Plantek Seedling Trays	- 25 to 256 cells per tray	\$7.35 to \$10.00 per tray
Landmark Trays	- 50 to 512 plug tray and 84 Hexagonal	\$2.90 to \$3.60 each (sold in cartons of 100)

Water Absorbent Polymers	- 25 kg bag	\$375.00
	- 5/ 10 kg pail	\$112.50/\$190.00
	- 1 kg pack	\$25.00
Pottputki Planting Tubes	- 49 to 68mm	\$185.00 to \$216.00
	- Kidney-shaped plant holder	\$109.00
Ecopots	- 433 to 1525 cell per sq m	\$5.51 to \$6.77 per carton
Plastic Growing Trays for Paperpots/ Ecopots		\$6.30 to \$7.20 per tray
Paperpots	- vary in size	\$2.62 to \$10.73 per set
Thermoformed Plastic Pots	- 7 to 15 cm	\$0.03 to \$0.20 per pot
Dosmatic Proportional Injector	- range of flow rates	from \$796.50

Quickheat:

Thermogro plant raising panels (230 volt)		
400 x 500mm		\$60.00
450 x 750mm/450 x 1200mm		\$72.00/\$88.00
600 x 750mm/600 x 1200mm/600 x 1520mm		\$76.00/\$97.00/\$120.00

Evergreen Horticulture and Hydroponics Ltd:

Cell trays:		
- 16/25/45 ml square, 198/144/60 cells per tray		\$3.35 each (50 trays)
Planter Bags - PB ¾ to PB 95 (per 1000)		\$26.80 to \$927.20
Hydroponic growing pots		\$0.06 to \$0.24 each
Misting controllers		From \$75.00
Misting Nozzles		from \$1.50
Solenoid valves 24 volt x 20mm		\$36.30
24 Volt Transformer		\$41.25
Heatgrow plant raising panels	1.5m x 0.5m wide to 6.0 x 0.5m	\$150.90 to \$389.00
“Camplex” heating cables	75 watt 6.09 m cable	\$101.00
	150 watt 12.18 m cable	\$146.00
	300 watt 24.38 m cable	\$222.00
	600 watt 48.76 m cable	\$376.00
	1000 watt 81.38 m cable	\$648.00
Thermostats	- ET 0 to 40 standard	\$75.00
	- ET 0 to 40 with phase interruption plug	\$95.00
Vibro Hand Seeder		\$160.00

Hortlink New Zealand Ltd:

Planter Bags	PB ¾ to PB 40	\$38.00 to \$446.00 per 1000
	PB 60 to PB 95	\$0.87 to \$1.49 each
Computer Labels (unprinted)	White/coloured	\$35/\$40 per 1000
Grow lights	24” Full spectrum fluorescent tubes	\$19.30
	48” Full spectrum fluorescent tubes	\$23.72

2.8.10 Growing Medium

Laings Gardenmakers:

Soil/Soil conditioners:	Price per full scoop
Superfine/standard/budget screened soil	\$29.95/\$10.85/\$7.95
Lawn topdressing soil mix	\$29.95
Screened garden soil mix	\$15.95
Bark/Fine bark nuggets	\$19.95/\$18.95
Fine bark mulch/screened bark chip	\$11.95
Mill bark mix	\$8.95
Chunky bark (price per large bag)	\$5.95 per bag
Cow manure and sawdust compost	\$13.95
Pig manure and sawdust	\$12.95
Fresh sawdust	\$7.95
Bio-mix soil conditioner	\$19.95

Evergreen Horticulture and Hydroponics:

Pumice (kiln sterilised)	Grades fine, 1 to 5mm, 3 to 8mm, coarse, 50 litre sack	\$21.50 to \$25.00
Pumice (kiln sterilised)	Grades fine, 1 to 5mm, 3 to 8mm, coarse, 1700 litre bulk bag	\$272.00
Perlite	Grades medium, coarse, super coarse 100 litre sack	\$38.00 to \$42.00
Vermiculite	Grades fine, medium and coarse 100 litre sacks	\$30.00
Hydroton (expanded clay)	Grades 1 to 4 mm, 4 to 8mm, 8 to 16mm 50 litre sacks	\$33.75
Pot Mix	Mixture vermicast, Peat and pumice 30 litre bag	\$14.00
Aqua Palm Peat Bricks	Makes 50 litres of growing medium	\$7.35
Rockwool	Range of plug /cube sizes, slab of 200	from \$12.10/slab

Hortlink New Zealand Ltd:

Perlite horticultural grade, no fines/Vermiculite horticultural grade	100 litre	\$43.50
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2.9 WEED, PEST AND DISEASE CONTROL

2.9.1 Weed, and Pest Control - Budget Figures

Depending on the type of farm, location and other factors, typical weed and pest control costs are:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$0.97
Waikato/Bay of Plenty Intensive	\$0.83
Central North Island Hill Country	\$0.76
Gisborne Large Hill Country	\$0.84
Hawkes Bay/Wairarapa Summer Dry	\$0.51
Hawkes Bay/Wairarapa Summer Moist	\$0.79
Manawatu/Rangatikei Intensive	\$1.01
South Island Merino	\$1.02
Canterbury/Marlborough Hill Country	\$0.84
Canterbury/Marlborough Breeding and Finishing	\$1.52
Otago Dry Hill	\$0.99
Southland/South Otago Hill Country	\$1.07
Southland/South Otago Intensive	\$0.99
National	\$0.92
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$15
Waikato/Bay of Plenty	\$8
Lower North Island	\$5
Canterbury	\$7
Southland	\$5
West Coast	\$8
National	\$8
<i>Deer</i>	<i>(per su)</i>
North Island	\$1.19
South Island	\$0.91
<i>Arable</i>	<i>(per ha)</i>
Canterbury	\$161
<i>Horticulture</i>	<i>(per ha)</i>
Kiwifruit	\$975
Hawkes Bay Pipfruit	\$1,845
Nelson Pipfruit	\$2,269

Source: MAF Monitoring Reports - July 2001

For further examples see *Section 3*, Gross Margins.

See individual items in this section for accurate budgeting.

2.9.2 Weed, Pest and Disease Control - General

Some herbicides, fungicides, and insecticides are produced by more than one chemical company and come in a range of strengths. Hence the trade names shown are to serve only as examples of the chemical concerned.

No preferential endorsement by *Lincoln University* is implied, nor is any criticism implied of any chemical which does not appear in this Manual.

The following coding has been employed to distinguish between the various Agrochemical companies:

AV	Aventis	M	Merial
B	BASF	MO	Monsanto
BY	Bayer	N	Nu Farm
CC	CropCare	NO	Novartis
CW	Crop Watch	O	Orion
CY	Cyanamid	PM	Pest Management Services
D	Du Pont	S	Syngenta
DO	Dow AgriScience	T	Taranaki NuChem
FF	Fruitfed Supplies	W	Wrightson
K	Key Industries	Y	Yates

2.9.3 Herbicides

For detailed information on products, active ingredients, application and dilution rates and for suitability of various chemicals for individual situations, farmers should consult their local Chemical company representative or refer to publications such as the "N.Z. Agrochemical Manual" (obtainable from rural retailers).

Trade Name	Active Ingredient (%)	Code	Unit Size	Retail Price
Amine 24-D	2,4-D amine (40)	DO	20 litre	\$152.89
Acheive	tralkoxydim (40)	CC	4.5 kg	\$396.44
Afalon	linuron (45)	AV	5 litre	\$193.20
Answer	metsulphuron (20)	D	20 litre	\$3,678.22
Asulox	asulam (40)	AV	5 litre	\$170.20
Avadex Xtra	triallate (40)	MO	20 litre	\$440.88
Axall	bromoxynil (7.5), ioxynil (7.5), mecoprop (34.5)	AV	5 litre	\$135.70
			20 litre	\$450.80
Banvel 200	dicamba (20)	O	5 litre	\$140.44
			20 litre	\$500.44
Banvine	2,4-D (20)	DO	1 litre	\$46.22
			5 litre	\$187.55
Basagran	bentazone (48)	B	5 litre	\$198.22
			10 litre	\$393.77
Betanal	phenmedipham (7.9)	AV	5 litre	\$273.70
	desmedipham (7.9)			
Bladex	cyanazine (50)	CY	10 litre	\$216.00
Buster	glufosinate-ammonium (20)	AV	1 litre	\$44.28
			5 litre	\$163.30
			20 litre	\$615.25

Caragard 500 FW	terbuthylazine (25)	O	5 litre	\$165.33
	terbumeton (25)		20 litre	\$576.89
Centurion 240 EC	clethodim (24)	N	500 ml	\$95.11
Centurion Plus	clethodim (24)	N	1 litre	\$129.78
Combine	bromoxynil (20), ioxynil (20)	AV	10 litre	\$437.00
Commando	L-flamprop, isopropyl(20)	CY	20 litre	\$631.11
Cougar 20G	diflufenican (10), isoproturon (50)	AV	5 litre	\$258.75
Duplosan Super	dichlorprop (60)	B	10 litre	\$147.56
Duplosan KV	mecroprop-P (60)	B	10 litre	\$192.89
Escort	metasulfuron (60)	D	40 g	\$54.22
			200 g	\$221.33
Foresite	oxadiazon (38)	AV	1 litre	\$92.00
			5 litre	\$402.50
Frontier	dimethanamid (90)	B	10 litre	\$520.89
Fusilade WG	fluazifop-butyl (25)	S	1 kg	\$101.33
			5 kg	\$456.00
Gallant NF	haloxyfop (10)	DO	5 litre	\$423.11
			20 litre	\$1,591.11
Gardoprim 500 FW	terbuthylazine (50)	O	20 litre	\$216.00
Gesagard 500 FW	prometryn (50)	O	5 litre	\$239.11
Gesaprim 500 FW	atrazine (50)	O	5 litre	\$60.00
Gesatop 500FW	simazine (50)	O	5 litre	\$64.89
Glean DF	chlorsulfuron (75)	D	200 g	\$120.89
Glyphosate G360	glyphosate (36)	N	110 litre	\$948.44
Gramoxone 250	paraquat (20)	S	5 litre	\$96.89
Granstar	methylbenzoate complex (75)	D	200 g	\$150.22
Grazon	trichlopyr (60)	DO	20 litre	\$773.33
Harmony	thifensulfuron methyl	D	100 g	\$152.89
Jaguar	diflufenican (2.5),bromoxynil (25)	AV	10 litre	\$374.90
Kerb 500F	propyzamide (40)	BY	5 litre	\$396.44
Lasso MicroTech	alachlor (48)	MO	10 litre	\$149.33
Lexone Mitribuzin	metribuzin (75)	D	2.5 kg	\$224.89
Linuron 50	linuron (50)	D	2.5 kg	\$108.44
MCPA	MCPA (37.5)	DO	20 litre	\$131.56
MCPB	MCPB (40)	DO	20 litre	\$242.67
Mossoff	benzalkonium chloride (50)	T	1 litre	\$22.84
	copper sulphate (19.7)			
Mostox	dichlorophen (43.2)	AV	5 litre	\$166.75
Nortron	ethofumesate (50)	AV	5 litre	\$391.00
Pasture - Kleen	2,4-D ethylhexylester (52)	DO	20 litre	\$208.89
Preeglone	diquat (6), paraquat (12)	S	20 litre	\$305.78
Pulsar	bentazone (20) MCPA (20)	B	10 litre	\$102.22
Puma S	fenoxaprop-p-ethyl (6.95)	AV	10 litre	\$1000.50
Pyramin DF	chlolidazon (43)	B	1 kg	\$60.89
Radiate	picloram (15) clopyralid (22)	DO	5 litre	\$839.11

Reglone	diquat (20)	S	20 litre	\$399.11
Roundup Renew Extra	glyphosate (49)	M	100 litre	\$1,339.56
Salvo	dicamba (1.7), dichlorprop (23.3) MCPA (10.7), mecoprop (21)	CY	20 litre	\$288.00
Sencor 70 DF	metribuzin (70)	BY	2 kg	\$184.00
Stomp 330E	pendimethalin (33)	CY	20 litre	\$571.56
Surrender	benalkonium chloride (50)	Y	5 litre	\$111.11
Targa	quizalofop-p-ethyl (50)	CY	5 litre	\$296.89
Tigrex	diflufenican (1.2), MCPA (60)	AV	10 litre	\$172.50
Topik 240 EC	clodinafop-propagul (24)	NO	1 litre	\$657.78
Topogard 500 FW	terbutryn (35)	O	5 litre	\$234.67
	terbuthylazine (15)			
Tordon Brush-Killer	picloram (10)	DO	5 litre	\$344.00
	triclopyr (30)			
Tordon 2G	picloram (2)	DO	5 kg	\$70.22
Totril Super	ioxynil (25)	AV	10 litre	\$370.88
Tribunil WP	methabenzthiazuron (70)	BY	2kg	\$107.56
Tridan	trifluralin (48)	AV	20 litre	\$241.50
Trimec	mecoprop (60) MCPA (15)	CC	20 litre	\$320.89
	dicamba (1.8)			
Trophy	acetochlor (84)	DO	20 litre	\$330.67
Triflur 40	trifluralin (40)	N	5 litre	\$87.11
Tropotox	MCPA (2.5), MCPB (37.5)	AV	20 litre	\$270.25
			200 litre	\$2587.50
Versatil	clopyralid (30)	DO	20 litre	\$1,592.89
Velpar 75 DF	hexazinone	D	10 kg	\$874.67

2.9.4 Insecticides

Refer to *Section 2.9.2* for key to Company codes.

For detailed information on products, active ingredients, application and dilution rates and for suitability of various chemicals for individual situations, farmers should consult their local Chemical company representative or refer to publications such as the "N.Z.Agrichemical Manual"

Trade Name	Active Ingredient (%)	Code	Unit Size	Retail Price
Actellic Dust	pirimiphos-methyl (50)	S	15 kg	\$206.22
Actellic	pirimiphos-methyl (50)	S	1 litre	\$80.89
Actellic SmokeGen	pirimiphos-methyl (50)	S	90 g	\$20.09
Ascend 200SC	lipronil (20)	AV	1 litre	\$454.25
Basudin 600EW	diazinon (80)	NO	5 litre	\$152.89
Baygon 20EC	propoxur (20)	PM	1 litre	\$62.00
Counter 20 G	terbufos (20)	CY	15 kg	\$221.33
Decis Forte	deltamethrin (2.75)	AV	1 litre	\$63.25
			5 litre	\$281.75
Dimilin 25W	diflubenzuron (25)	N	500 g	\$104.00

Drisan 10G		BY	20 kg	\$297.78
Dismissal	thiodicarb	W	20 kg	\$133.33
Folidol M50	parathion-methyl (60)	BY	5 litre	\$190.22
Gesapon 20G	diazinon (20)	BY	22 kg	\$336.00
Icon 10WP	lambda-cyhalothrin (10)	CC	50 g	\$18.84
Karate Zeon	cyhalothin (5)	S	1 litre	\$472.00
Lorsban 50 EC	chlorpyrifos (40)	DO	5 litre	\$131.56
Mavrik	fluvalinate (24)	N	1 litre	\$165.33
Mesuroil snail bait	methiocarb	BY	10 kg	\$168.00
Mesuroil 75WP	methiocarb (2)	BY	400 g	\$69.33
Monitor	methamidophos (60)	B	10 litre	\$321.78
Perfekthion	dimethoate (50)	B	5 litre	\$117.33
Phorate 20G	phorate (20)	N	15 kg	\$130.67
Pirimor 50	pirimicarb (50)	S	1 kg	\$76.00
Presto	lipronil (20)	AV	1 litre	\$454.25
Sevin Flo	carbaryl (50)	AV	10 litre	\$189.75
Sumi-Alpha	esfenvalerate (5),xylene (74)	N	1 litre	\$83.56
SusCon Green	chlorpyrifos (10)	CC	15 kg	\$307.56
Tamaron 600SL	methamidophos (60)	BY	10 litre	\$354.67
Vydate L	oxamyl (24)	D	3.8 litre	\$195.56

2.9.5 Fungicides

Refer to *Section 2.9.2* for key to Company Codes.

Trade Name	Active Ingredient (%)	Code	Unit Size	Retail Price
Acrobat MZ690	dimethomorph (7.5) mancozeb (66.7)	CY	10 kg	\$468.44
Afugan	pyrazophos (30)	AV	1 litre	\$74.75
Aliette	fosetyl-aluminium (80)	AV	1 kg	\$88.55
Aliette Super	fosetyl-aluminium (52.8) thiabendazole (12.9)thiram (17.2)	AV	2.9 kg	\$291.01
Alto	cypronazole	N	5 litre	\$672.89
Amistar	azoxystrobin (25)	S	5 litre	\$634.67
Amistar WG	azoxystrobin (50)	S		\$804.44
Baytan Universal	triadimenol (15)	BY	10 litre	\$1,077.33
Beret Dust	fenpicloril (25)	NO	1 kg	\$37.69
Cereous 250EC	triadimenol (25)	BY	5 litre	\$480.89
Chinosol W	8hydroxyquinoline sulphate(67.5)	AV	2.5 kg	\$342.70
Euparen 50DF	dichlofluanid (50)	BY	2 kg	\$144.89
Folicur 430SC	terbuconazole (25)	BY	5 litre	\$702.22
Kocide 2000	cupric hydroxide (50)	D	10 kg	\$161.78
Manzate 200DF	mancozeb (48)	D	10 kg	\$95.11
Monceren 12.5DS	pencycuron (12.5)	BY	20 kg	\$702.22
Monceren IM 13.3D	pencycuron (25) imazall (6)	BY	20 kg	\$718.22
Monceren IM 270FS	pencycuron (25) imazall (2)	BY	5 litre	\$553.78
Octave	prochloraz (46.2)	AV	1 kg	\$299.00
Opus	epoxiconazole (12.5)	B	10 litre	\$593.78

Previcur N	propamocarb (60)	AV	1 litre	\$207.00
Ridomil Gold MZ	metalaxyl (8)	S	5 kg	\$239.11
WG	mancozeb (64)			
Rovral Flo	iprodione (25)	AV	5 litre	\$274.85
			20 litre	\$1007.40
Rovral Gold	iprodione (75)	AV	1 kg	\$158.70
Rubigan FLO	fenarimol (12)	DO	1 litre	\$109.33
Scala	pyrimethanil (40)	AV	5 litre	\$368.00
Score 250 EC	difenoconazole (10)	S	5 litre	\$979.56
Shirlan	fluazinam (50)	CC	5 litre	\$714.67
Sportak	prochloraz (45)	AV	5 litre	\$264.50
Sumisclex granules	procymidone (10)	CC	16 kg	\$321.78
Sumisclex 500SC	procymidane (25)	N	10 litre	\$968.89
Syllit Plus	dodine (40)	AV	10 litre	\$189.75
Tilt 250EC	prop-isoconazole	S	5 litre	\$471.11
Topas 200 EW	penconazole (20)	NO	1 litre	\$239.11
Topsin M-4A	thiophanate-methyl (40)	DO	5 litre	\$198.22
VitaFlo 200	carboxin (20)	N	20 litre	\$623.11
	thiram (20)			

2.9.6 Algaecides

Dominion Chemicals

Coptrol Algaecide	1 litre	\$56.10
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2.9.7 Rabbit/Rodent/Opossum Control

Refer to *Section 2.9.2* for key to Company Codes.

Trade Name	Code	Unit Size	Retail Price
Pindone Possum/Rabbit Pellet	PM	25 kg	\$80.00
Talon 20P Possum Pellets	PM	10 kg	\$40.00
Feracol Paste	PM	4.5 kg	\$236.00
Ferafeed Lured Pellets	PM	10 litre	\$46.00
Possum Lures (1 L fragrances and oils)	PM		\$40.00 to \$162.00
N0 Possum 1080 Gel Bait	PM	40	\$12.75
Wallaby Pellets	PM	10 kg	\$28.00
Ferret Paste	PM	450 g	\$18.50
Racumin Paste	PM	2.5 kg	\$34.80
Ditrac rodent bait	PM	1.8 kg	\$28.00
Contrac rodent bait	PM	1.8 kg	\$36.00
Rabbit/Possum/Ferret Traps	PM		\$22 to \$97
Rodent Traps	PM		\$0.50 to \$26.00
Larbait	AV	10 kg	\$163.30
Talon Possum Bait	CC	10 kg	\$56.00

2.9.8 Bird Repellants

Eaton's 4 The Birds	PM	300 g/4 litres	\$10.80/\$74
Bird Free	PM	4 litres / 19 litres	\$105/\$400

Alphachloralose wheat	PM	1.5 kg/4 kg	\$20/\$55
Alphachloralose barley	PM	1.5 kg/3 kg	\$24/\$40
Alphachloralose peas	PM	1.5 kg/4 kg	\$24./\$60
Alphachloralose paste	PM	500 g	\$30.00

2.9.9 Bactericides

Streptomycin	streptomycin (17)	K	1.2kg	\$103.11
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2.9.10 Wetting, Spreading and Marking Agents

Citowett	alkylaryl polyglycol ether	B	5 litre	\$62.67
Contact		FF	5 litre	\$79.80
Sprayfast Rainfast	Spray marker dye	K	1 litre	\$56.89
Landmark		FF	1 litre	\$59.30
Nu Film 17		FF	4 litre	\$184.50
Spraystay		FF	5 litre	\$155.52

2.9.11 Penetrants

Pulse (for Roundup herbicide)		MO	5 litre	\$162.67
Triton		M	15 litre	\$520.00
Boost		DO	5 litre	\$171.56
			20 litre	\$637.33
Guardall Liquid		Y	200 ml	\$16.53

2.9.12 Growth Regulants

Cycocel 750	chlomequat (75)	B	10 litre	\$107.56
Ethrel	chlorthethphon (48)	AV	1 litre	\$74.75
			20 litre	\$839.50
Moddus	trinexapac-ethyl (25)	NO		
Terpal	mepiquat chloride (30.5)	B	5 litre	\$217.78
	chlorthethphon (15.5)			

2.9.13 Oil Sprays

D-C Trate	Int. spraying oil	B	20 litre	\$111.11
Sunspray	Oils-mineral- insecticidal (97)	B	5 litre	\$47.11
			20 litres	\$122.67

2.9.14 Soil Fumigants

Basamid Granules	dazomet (99)	B	20 kg	\$296.89
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2.9.15 Root Forming Hormones

Seradix 1,2	beta-indolyl butyric acid	500 grams	\$26.00
Seradix 3	beta-indolyl butyric acid	500 grams	\$50.75
Liba 10,000	gamma-indolylbutyric	200 mls	\$22.20
Promolin		500 mls	\$265.40
Grocell GA3		10 x 10 gms	\$46.26

2.9.16 Spraying Costs - Aerial and Ground

Aerial Spraying

Canterbury:

Pasture and crop spraying	\$25 to \$55 per hectare
Brushweed spraying	\$95 to \$185 per hectare
Forestry spraying	\$60 to \$150 per hectare

Note: All spraying prices are dependent on water rate requirement and area to be done.

Bay of Plenty:

Pasture weeds	from \$18 per hectare
Gorse	from \$270 per hectare

Waikato:

Pasture weeds	\$17 to \$18 per hectare
Gorse	\$250 to \$300 per hectare

Ground Spraying (crops)

Canterbury:

Rates vary depending on chemical used, application rate and crop being sprayed.

Boom spraying costs on average	\$25 to \$30 per ha
Gun spraying	\$100 per hour

Hawkes Bay:

Ground spraying of squash	\$25 per ha
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Bay of Plenty:

Boom Spraying	\$25 to \$30 per ha
Gun Spraying	\$55 to \$65 per hour

2.10 SELLING, HANDLING, PROCESSING CHARGES, AND LEVIES

2.10.1 Yard Fees

These are usually charged on a per head basis, and vary between stock and station agents.

Canterbury

	Vendor	Purchaser
Sheep and lambs	\$0.55	\$0.25
Prime cattle	\$6.00	\$2.00
Store cattle	\$5.00	\$2.00
Prime pigs	\$3.00	\$1.50
Store pigs	\$1.65	\$1.00
Bobby calves	\$2.00	\$1.00
Dairy cattle	\$6.00	\$2.00

North Island sales yards levy approximately 12c per head for sheep. For cattle, liveweight selling has a levy payable of \$1.50 per head by vendor and \$2.00 per head by purchaser.

2.10.2 Commissions on Stock and Plant Sold Through a Stock and Station Agent

Canterbury

Sale Yards		Clearing Sales	
Sheep	5.50%	Sheep	5.50%
Prime/Store Cattle	5.50%	Store Cattle	5.50%
Vealers	5.50%	Dairy Cows	7.50%
Bulls Stud	8.50%	Horses	10.00%
Dairy Cattle	7.50%	Stud Sheep/Cattle	8.50%
Pigs	6.25%	Pigs	6.25%
Deer	5.50%	Dogs	8.50%
Goats	5.50%	Plant	10% to 15%
Bobby Calves	7.50%	Deer	5.50%
Stud Deer	8.50%		

The above commission rates are for auction sales only. Most rates for private selling are slightly higher.

Central North Island

Sales Yards		Clearing Sales	
Sheep	5.50%	Sheep	5.50%
Cattle	5.50%	Store Cattle	5.50%
Vealers	5.50%	Pigs	5.50%
Bulls Stud	9.00%	Dairy Cows	5.50%
Dairy Cattle	7.50%	Horses	5.50%
Pigs	7.50%	Stud Cattle	9.00%
Deer- weaners	6.00%	Stud Sheep	9.00%
Deer- breeding	6.00%	Dogs	10.00%
Deer- stud	6.00%	Plant	10% to 15%
Goats - G2 – feral	5.50%		

2.10.3 Wool Selling Charges

Brokers Charges	14.0c/kg
Greasy Wool Testing – Yield, Mean Fibre Diameter and Colour	\$56 per test per lot
NZWB levy	2% of gross proceeds less brokers charges and wool testing charges

Broker's charges cover receiving, warehousing, weighing, lotting, cataloguing and advertising. Reclassing, binning and inter-lotting are not included. The fee quoted here is an average for the whole country and is likely to vary between companies depending on the services provided and the quality of those services.

2.10.4 Goat Fibre Charges

Mohair Pacific's classing and handling charges are as follows. Levies are included.

All fibres attract the following in-store charges:

Classing	55 cents per minute
Warehouse Fee	22 cents per kg
Marketing	5% on net sold

Mohair:

No levies are being deducted on behalf of *Mohair NZ* at this present time. However with some proposed research projects currently being formulated, levies will be looked at as a means of additional funding.

Cashgora and Cashmere:

Classing warehousing and marketing as for Mohair. There are no levies on these fibres.

2.10.5 Velvet Charges

The *Velpool Group* charges for consolidation and grading costs are as follows:

- Seller charged 3.5% for commission.
- Seller charged \$4.00 per kg for handling and grading costs.
- Buyer packing fee \$1.00 per kg

See also *Section 2.10.7 for Game Industry Board* levies.

2.10.6 Killing and Inspection Charges

Killing Charges:

Livestock procurement policies vary widely between meat processing/exporting companies. Significant differences between North and South Island policies can also be observed.

Generally a farmer has a choice of the following selling options - on farm selling, on schedule, company pool, direct contract.

In most cases the price paid is net of processing costs. Consequently the concept of "killing charges" for individual companies or plants is no longer relevant. Processing costs are not shown on weight notes or killing sheets.

Deductions are usually made only for livestock transport to the killing plant and for compulsory levies recovered by companies for other parties.

Meat Inspection Fees :

These fees are payable by meat companies under a compulsory cost recovery contract negotiated with *Assure New Zealand Ltd* (formally *MAF Quality Management*) each year. The contract includes the recovery of the direct costs of front line meat inspection as well as off-plant programme costs and overheads. These charges are a matter of agreement between *Assure New Zealand* and its industry clients, and are not available for publication.

Meat inspection fees are usually treated as an internal cost by companies in the South Island and are not shown as a deduction on the killing sheet. In the North Island the fees are often treated as an external cost and are shown separately. Variation in rates may occur between plants because of the different nature and pattern of kill between plants

As a guide only, the 2002 levels of meat inspection costs are approximately:

Lamb	\$1.35 per head	Goats	\$1.50 per head
Sheep	\$1.50 per head	Bobby Calves	\$1.50 per head
Cattle	\$12.65 per head	Deer	\$7.20 per head

2.10.7 Livestock Levies.

By law, levies are collected by meat companies from the owners of stock at the time of slaughter. The chart below lists the levy rates *MAF* collects for the listed organisations (effective from 3 September 2001). These are GST inclusive.

Levies per head:	Adult cattle	Calves (up to 27kg)	Vealers (27 to 160kg)
Bovine -TB Cattle Levy ² (Animal Health Board)	\$15.75	-	\$15.75
Meat New Zealand	\$4.05	\$0.225	\$4.05
TOTAL LEVIES	\$19.80	\$0.225	\$19.80

Levies per head:	Lambs	Sheep and Goats	Pigs
Meat New Zealand	\$0.45	\$0.45	-
Pork Industry Board ¹ .	-	-	\$4.50
TOTAL LEVIES	\$0.45	\$0.45	\$4.50

Note: Adult Cattle includes heifers, steers cows and bulls.

Sheep includes hoggets and rams, and other adult sheep.

¹. The Pork Industry Board levy applies to all pigs slaughtered, notwithstanding that there may be carcasses wholly condemned as unfit for human consumption.

See also *Section 1.8.1*

². In the case of the Bovine -TB levy for the *Animal Health Board* and *Meat New Zealand* levies, a nil rate of levy applies to any animal slaughtered where the carcass, in its entirety, is unfit for human consumption (ie a nil rate of levy applies to any animal which is wholly condemned for any reason following slaughter up to the point of sale).

Pork Industry Council Administration and Pork Marketing Stabilisation Levies

See previous page and also *Section 1.8.1*

Wool Board Levy - see *Section 2.10.3*

Deer/Game Industry Board Levies

NZ Game Industry Board levies effective from 1 October 2001:

	Velvet (c/kg)		Venison (c/kg)	
	Fallow	Other	Fallow	Other
GIB	\$0.50	\$3.00	\$0.07	\$0.10
AHB	\$0.746	\$0.746	\$0.069	\$0.069
DFA	\$0.12	\$0.12	\$0.025	\$0.025

The venison levy is paid on all farmed deer going through Deer Slaughter Premises. A nil levy is charged on all condemned animals, and the levy is waived for animals that are TB reactor positive.

2.10.8 Dairy Company Shares/Peak Notes

All farmers who wish to supply milk to a dairy company need to apply to become a Supplying Shareholder, obtaining shares in the company before milk can be sold.

Fonterra Co-Operative Group Ltd.:

New suppliers who apply during the application period (15 December to 28 February) pay an application fee of \$500. The application fee for existing suppliers intending to split their supply is \$250 and no fee is payable for existing suppliers who want to increase their supply.

Shares

The following examples, supplied by *Fonterra Co-Operative Group Ltd*, illustrate how the price of shares will be determined. These examples are extreme and are for illustrative purposes only. They are not intended to reflect what may, in fact, occur.

On 15 December *Fonterra* publishes a price for Shares of \$3.30

On 15 January *Fonterra* changes this price to \$3.70.

On 15 February *Fonterra* again changes the price to \$3.00.

On 31 May *Fonterra* sets the June Price at \$3.40.

Supplier A applies on the 15 December and does not elect the June Price. Supplier A therefore pays the Default Price. In this case, the Default Price will be the June Price of \$3.40 (because the June Price is within + or – 7.5% of the Published Price at 15 December).

Supplier B applies on the 15 January and does not elect the June Price. Supplier B therefore pays the Default Price. In this case, the Default Price will be the Published Price at 15 January minus 7.5%, which equals \$3.43 (because the June Price falls below the published price at 15 January by more than 7.5%).

Supplier C applies on the 15 February and does not elect the June Price. Supplier C therefore pays the Default Price. In this case, the Default Price will be the Published Price at 15 February plus 7.5%, which equals \$3.23 (because the June Price exceeds the Published Price at 15 February by more than 7.5%).

Supplier D applies on 15 December and elects the June Price (which has not been published at the time of the application). Supplier D therefore pays \$3.40.

2001 Share Price

The initial published share price as at December 2001 was \$3.85 per share.

Peak Notes

In addition to holding shares, supplying shareholders are also required to hold Peak Notes. The Peak Note is a means by which the supplier contributes to the peak processing capacity costs of the company.

The issue price of each Peak Note is fixed at \$30.00

2.10.9 Herbage Seed Levy

The Commodity Levies (Non Proprietary and Uncertified Herbage Seeds) Order 1997 gives provision for a variable levy rate. The rate set for 2002 is 1.2% of an estimated farm value for the cultivars that are covering their full maintenance costs through the levy. The remaining non proprietary cultivars (NPC) will carry a levy of 1.5%.

Cultivar	AgResearch NPC Maintenance Rate
Red Clover	Grasslands Pawera 1.5%
	Grasslands Turoa 1.5%
White Clover	Grasslands Huia 1.2%
	Grasslands Pitau 1.5%
	Uncertified White Clover 1.2%
Timothy	Grasslands Kahu T. 1.5%
Ryegrass	Grasslands Manawa 1.5%
	Grasslands Moata 1.5%
	Grasslands Nui 1.2%
	Grasslands Ruanui 1.5%
	Grasslands Tama 1.5%
	Uncertified Ryegrass 1.2%

2.10.10 Arable Crop Growers Levies

United Wheatgrowers levy (Wheat insurance costs) - \$2.50 per tonne, on wheat only. (Valid from the 1st February 2002 until 31 January 2003.)

Foundation for Arable Research (FAR) levy - payable at first point of sale or transfer of crops. Crops that are being levied for research have had their *FAR* levy set for the 2002 year as follows:

Maize (including cribbed maize and popcorn)	0.4% of sale value
Herbage and amenity seed	0.6% of assessed value
All other grain and seed crops (cereals, pulses, brassicas, etc)	0.6% of sale value

Specialist, high value, vegetable and brassica seed should not be levied at an amount (per kg seed) higher than that payable on non-hybrid seed.

2.10.11 Wheat Royalties

Variety	Rate per tonne (on end point tonnage)
Belfield, Torlesse	\$2.20
Commando, Domino	\$2.00
Monad, Otane, Amorock, Regency, Clear	\$3.00

2.10.12 Horticultural Levies

Berryfruit:

Blackcurrants:

A levy of 4 cents per kilogram shall be paid in respect of all blackcurrants sold for processing or export.

Blueberries:

Levies are: 10 cents (fresh) and 3 cents (frozen) per kilogram for local market sales and 25 cents (fresh) and 3 cents (frozen) per kilogram export market.

Boysenberries:

A voluntary levy of 2 cents per kilogram on local market sales.

Export levies are set each year according to budget.

Raspberries:

There are now no levies payable to the *Raspberry Marketing Council*.

Other Berryfruit:

There are no separate levies at this stage for strawberries, blackberries or other berryfruit.

Citrus Fruits:

The New Zealand Citrus Growers Inc. imposes voluntary levies on all citrus fruit growers.

Mandarins	2c/kg	Oranges/Tangelos	1c/kg
Lemons/limes/grapefruits	2c/kg	Processed citrus fruit	0.003c/kg

Summerfruits:

Levy on:	Local Market	Export Market
Nectarines	1.5%	1.5%
Apricots	1.5%	1.5%
Peaches	1.5%	1.5%
Plums	1.5%	1.5%
Cherries	0.75%	0.75%

Other Fruits:

	Local Market Grower	Export Market Grower
Nashi Pears	1c per kg	30c per 4kg tray
Avocados	3.0%	15c per 5.5kg tray
Feijoas	2.0% at first point of sale	2.0% at first point of sale
Persimmons	-	20c per 4kg tray

Orchard Levies:

N.Z. Fruitgrowers Federation:

Orchard Fruit Commodity Levies apply to all fruit grown in orchard type conditions except berryfruits, e.g. kiwifruit, pip and stonefruit. The levy rate is 0.07% of the gross sales value (\$7.00 per \$10,000 of sales) of all orchard fruit. This rate is effective from 10 September 2001 to 30 September 2002.

Vegetables:

Below are the rates under the commodity levy:

Fresh vegetables (domestic sector)	\$0.45 per \$100 of sales
Fresh vegetables (export sector)	\$0.325 per \$100 of sales
Process vegetables	\$0.5625 per \$100 of sales
Potatoes	\$0.75 per \$100 of sales
Process Tomatoes	\$0.15 per \$100 of sales
Fresh Tomato	\$1.00 per \$100 of sales
Asparagus	\$0.15 per \$100 of sales
Export Squash	\$0.15 per \$100 of sales

The *Asparagus Council* has a commodity levy on hectares currently \$80 per ha per annum.

2.11 SUNDRY CROPPING AND HORTICULTURAL EXPENSES

2.11.1 Seed Certification Charges

AgriQuality New Zealand Ltd:

The following fees comprise the total Seed Certification Charge:

- a) Grower Fee - per paddock
- b) Plot Testing Fee - per line
- c) Per Kilogram Fee - per kg MD seed

Grower Fees:

Crops requiring one inspection (additional charges may apply to crops requiring more than one inspection):

Crop eligible 1st or 2 nd Generation	\$62 per paddock
Crop eligible Breeders or Basic	\$124 per paddock
Plus travel	\$5.50 to \$56.00 per paddock
Late fee	\$50
Crops withdrawn before inspection date	\$25

Plot Testing Fee: \$10 per line

Per kilogram fee:

	cents/kg MD Seed: (sack weight in brackets)	
Cereals	0.70 (50kg)	0.60 (70kg)
Grasses/Brassicas	1.29 (25kg)	1.03 (40kg)
Herbage Legumes	2.32 (25kg)	1.96 (50kg)
Redressing and Downgrading	18¢ per sack	

Uncertified Seed:

Per Line Fee	\$35 per line	
Per Kilogram Fee	cents/kg MD Seed: (sack weight in brackets)	
Cereals	0.36 (50kg)	0.26 (70kg)
Grasses/Brassicas	0.84 (25kg)	0.57 (40kg)
Herbage Legumes	1.40 (25kg)	1.05 (50kg)

Example Calculation:

1st Generation crop of Perennial Ryegrass

Line size 6500kg MD seed

Grower fee	- Crop eligible 1st Generation	\$62.00
	- Travel	\$8.00
Plot Testing		\$10.00
Per kg fee - 6500 kg MD ryegrass x 1.29 ¢ per kg MD seed		\$83.85

2.11.2 Grain Drying Charges

Carr Contracting Ltd.: (Ashburton)

All grain drying	- up to 16% moisture	\$17.00 per tonne
	- greater than 16% moisture	\$20.00 per tonne
Wheat Screening		\$30.00 per tonne
Seed sampling for certification (plus mileage)		\$25.00 per sample

SGS New Zealand Ltd.: (Timaru) - Grain Terminal charges 2002

Wheat/Barley/Oats:

% Moisture	Price per metric tonne
0 to 15.0%	\$16.00
15.1% to 17.0%	\$17.50
17.1% to 18.0%	\$19.50
18.1% to 20.0%	\$21.50
20.1% to 24.0%	\$26.50
Above 24%	P.O.A.

Peas:

0% to 18%	\$37.50
18.1% to 20.0%	\$42.50
Above 20%	\$47.50
above 24%	P.O.A.

The cost of drying and screening is equal to the cost of drying plus 75% of the normal screening charge.

Manawatu and Rangitikei (*Wrightson Seeds*)

% moisture	price (\$ per tonne)	
	Milling Wheat	Feed Grain
14.6 to 16.5	\$16.25	\$16.75
16.6 to 18.0	\$19.25	\$20.00
18.1 to 18.9	\$24.75	\$26.00
19.0 to 19.9	\$27.50	\$29.00
20.0 to 20.9	\$31.00	\$32.90

A Canterbury contractor offers contract drying of grain with a diesel dryer at \$70 per hour (approximately 4 tonnes is dried per hour, depending on moisture levels).

Maize

% moisture	Drying cost (\$ per tonne)
20%	\$21.00 per tonne (Gisborne)
22%	\$24.00 per tonne (Waikato)

2.11.3 Consolidated Dressing and Store Handling Charges

These rates include receiving, delivering, sampling, weighing, dressing, brushing of sacks and disposal of offal. (Prices based on machine dressed weight)

Ryegrasses	Perennial and Italian	15 to 16 cents per kg
Cocksfoot		33.00 to 35 cents per kg
Clovers	White, Red and Alsike	30 to 36 cents per kg
Lucerne		30 to 35 cents per kg
Grass seed (Fine)	Browntop, Dogstail and Timothy	38 to 48 cents per kg
	Fescue	20 to 25 cents per kg

Field dressed ryegrasses, clovers and timothy usually dress out approximately 15% to 20% offal and field dressed cocksfoot from 25% to 35% offal.

Turnips, Chou Moellier, Kale and Mustard	20 cents per kg
Rape	20 cents per kg
Prairie Grass	65 cents per kg
Yarrow	85 cents per kg
Chemical treating	\$33 per tonne plus materials
Blending clovers and blending grass seeds	\$70 per tonne

Machine Dressing (prices based on field dressed weight)

Wheat and Ryecorn	\$47 to \$55 per tonne
Barley	\$47 to \$50 per tonne
Field Peas and Lupins	\$53 to \$61 per tonne
Garden Peas, Beans and Lentils	\$60 to \$65 per tonne
Oats (dressing and clipping)	\$47 to \$66 per tonne

Sampling is charged at \$28 per line and dumping of disposable offal is \$10 per tonne.
Health certificates cost \$20 per line.

Grading

SGS New Zealand Ltd.: (Timaru) - Laboratory charges 2002

Grading Service Charges	Price
Pulses – (Peas, Lentils, etc)	\$2.55 per metric tonne
General Purpose Wheat/Barley	\$1.05 per metric tonne
Peas/Grains tested to Merchants Stores	\$15.00 per unit load
Opinion on Samples – Pulses	\$13.00 per sample
Milling/Biscuit Wheat	\$2.55 per metric tonne
Malting Barley	\$1.35 per metric tonne

Screening

SGS New Zealand Ltd.: (Timaru) - Grain Terminal charges 2002

Grains:

% Screening Level	Price per metric tonne
Up to 20%	\$15.00
20.1% to 25.0%	\$17.50
Above 25%	P.O.A.

The cost of drying and screening is equal to the cost of drying plus 75% of the normal screening charge.

Storage Charges

SGS New Zealand Ltd.: (Timaru) - Grain Terminal charges

Standard storage charge = \$0.09 per metric tonne per day

Receiving and delivery charges:

	Grains	Pulses
Receiving	\$2.60 per metric tonne	\$3.60 per metric tonne
Delivery to Road	\$2.60 per metric tonne	\$3.60 per metric tonne
Delivery to Container	\$3.00 per metric tonne	\$3.00 per metric tonne

A cartage fee of \$2.00 per metric tonne applies on all product delivered from the Grain Terminal to any facility with the *Port of Timaru. Ltd* compound.

Wrightson (Manawatu/Rangitikei) - \$2.60 to \$3.00 per tonne per month

A Canterbury company charges \$1.50 per tonne per week for small seeds and \$0.80 per tonne per week for pulses and cereals.

2.11.4 Seed Testing Fees

AgriQuality NZ Ltd: (National Seed Laboratory)

Purity and Germination Tests:	Cost per Sample
Purity and Germination combined	\$115.00
Purity only	\$88.00
Germination only	\$90.00
Germination only Field Dressed	\$58.00

Additional Tests or Services:

Endorsed Certificate for Export	\$70.00
Downgrading	\$45.00
Seed Weight	\$15.00
Fluorescence	\$40.00
Moisture	\$80.00
Tetrazolium	\$100.00
Vigour	\$100.00
Buried clover seed content in soil sample	\$100.00
Health tests	\$110.00
Priority Service – same day start	\$80.00 extra

Seed-borne Disease tests:

<u>PhytoSanitary, Quarantine and Consultancy</u>		
Tests for	- Fungi	\$121.00
	- Bacteria	\$121.00
	- Viruses	\$121.00
	- Nematodes	\$121.00
Combined Tests	- Pea Bacterial Blight (PBB) and Pea Seedbourne Mosaic Virus (PSBMV)	\$198.00
	- PBB, PSBMV and Ascochyta	\$253.00

Endophyte Tests Ryegrass and Fescue:

Seed-borne test	\$121.00
Grow out test	\$121.00

Carr Contracting Ltd.: (Ashburton)

<u>Separate Lab Tests on Milling Wheat</u>	
Protein/Moisture (NIR)	\$9.50
Falling Number	\$13.00
Black Point	\$8.00
Kernel Weight	\$6.00

Screenings (Rotoscreen)	\$3.50
Test Weight	\$3.00
Full Range of Lab Tests on Milling Wheat	\$35.00

SGS New Zealand Ltd.: (Timaru) - Laboratory charges

	per sample
Moisture (NIR)	\$8.00
Moisture (Air Oven)	\$32.00
Moisture/Protein (NIR)	\$14.00
Germination (Aubrey Method)	\$38.00
Germination (Aubrey Method) - with Certificate	\$60.00
Germination (Vitascope Method)	\$16.00
Protein (NIR)	\$8.00
Protein (Kjeldahl)	\$45.00
Kernel Weight/Screenings (Rotary)/Bushel Weight,	\$8.00
Falling Number (Meal and Flour)	\$22.00
Black Point/Skinings/Admixture	\$8.00
Full Test (Wheat) - M%, P%, Scr%, B/P%, Kg/HI, K/w, F/n, Admix	\$36.00
Full GP Barley Test - M%, Scr%, Kg/HI, Admix	\$20.00
Full Feed Wheat Test - M%, Scr%, Kg/HI, Protein, Admix	\$22.00
Full Malting Barley Test - M%, Scr%, Pro%, Kg/HI, Vitascope, Admix	\$30.00

Wrightson (Manawatu/Rangitikei)

Milling wheat - \$1.95 per tonne.

2.11.5 Tree Webbing and Weed Protection

Fruitfed Supplies: (Donaghys Products)

Weedtex	91cm x 50m roll	\$53.54
Tree webbing	Per 100m	\$26.58

2.11.6 Crates, Packaging and Weighing Equipment

Crate Hire

Fruit Case Company:

F80	610 x 420 x 445mm 80 litre	
F75	600 x 400 x 394mm 75 litre	
F/R47	600 x 400 x 247mm 47 litre (green/red)	\$11 deposit + \$1.00 hire fee
F35	600 x 400 x 193mm 35 litre	
F25	600 x 400 x 140mm 25 litre	
Plastic Bin	1200 x 1000 x 738mm	\$200 deposit plus \$15 hirage fee
Pallet	1200 x 1000mm	\$25 deposit plus \$2 hirage fee
South Island		
Cantabin	1210 x 1000 x 738mm	\$60 deposit plus \$9.50 hirage fee

Trays

Hutamaki Moulded Fibre:

	Price per 1000
Kiwifruit Fluted Trays	\$150
Summerfruit Trays	\$200
Avocado Trays	\$150
Apple Trays	\$165
Pear Trays	\$180
Small Retail Packing Trays	\$100
Wine Packaging	Price per 1000
Stand up Wine Dividers	\$229
Laydown Wine Bottle Dividers	\$355
Egg Packaging	Price per 1000
Egg Cartons Dozens Printed	\$235
Egg Cartons twin Sixes	\$243
Egg Trays 30 cell / 20 cell	\$195

Flower Packing

Pacific Growers Supplies Ltd:

Freesia Sleeve	Plain	\$35.69 per 1000
	Perforated	\$38.44 per 1000
Spray Carnation Sleeve	Plain - 450 x 210 x 100	\$42.00 per 1000
	Perforated - 450 x 210 x 100	\$44.56 per 1000
Chrysanthemum Large Sleeve	Plain - 450 x 350 x 185	\$64.06 per 1000
	Perforated - 450 x 350 x 185	\$67.06 per 1000
Orchid Polypropylene Sleeve	160 x 600mm Packs	\$38.67 per 1000
	205 x 600mm Packs	\$47.44 per 1000
Lily Sleeves	Plain 600 x 350 x 120	\$77.09 per 1000
	Perforated 600 x 350 x 120	\$79.25 per 1000
Polypropylene Long Roll	Plain 300 - 450 wide x 2500m	\$6.06 per kg
	Perf. 300 - 450 wide x 2500m	\$6.88 per kg
Polypropylene Short Roll	Plain 300 - 450 wide x 1000m	\$6.74 per kg
	Perf. 300 - 450 wide x 2500m	\$7.56 per kg
Acid Free Tissue	Acid free 510x750m-1000 per pack	\$62.26 per pack
Calla Wrap Sheets	440 x 250 mm sheets	\$191.80 per 1000
Calla Wrap Rolls	250mm x 75m - 1 to 20 rolls	\$40.25 per roll
	250mm x 75m - 20 rolls plus	\$38.50 per roll
Flower Boxes	P1 960 x 360 x 100 inside base	\$1.98 each
Printed Base and Lid	P2 1000 x 400 x 125	\$2.50 each
	P3 1000 x 400 x 150	\$2.96 each
Printed Long Box and Lid	P15 1200 x 195 x 120	\$2.08 each

Evergreen Horticulture and Hydroponics:

Freesia Sleeve	Perforated 350 x 220 x 80mm	from \$45.00 per 1000
Carnation Sleeve	Perforated 450 x 270 x 120mm	from \$54.50 per 1000
Spray Carnation Sleeve	Perforated 450 x 210 x 100mm	from \$46.50 per 1000
Chrysanthemum Sleeve	Perforated 450 x 350 x 150mm	from \$64.00 per 1000

Flower Cartons	(extensive range)	from \$1.35
White carton liner	1120mm x 25m roll	\$22.00
Acid free tissue	500 x 750mm. Ream 1000 sheets	\$59.00
Tetron	Widths:200mm,250,400,500,800 mm 50m roll	\$9.00 to \$34.50
Calla Wrap	Widths:75mm,100,150,200,250 mm 75m roll	\$20.95 to \$44.55
Jap Hooks		\$64.00 per 1000
Jap Band	Sizes 67W,68W,105 Bag 599	\$20.00 to \$33.00
Ice Pack, Thermogard	175mm x 175mm	from \$0.75 each
Ice Pack, Envirofreeze	6 x 2 sheet	from \$0.40 each

Post harvest treatment for flowers:

Chrysal AVB	1 litre	\$120.00
Chrysal CVB	1000 tablets	\$37.50
Chrysal LVB	5 litres	\$166.00
Chrysal OVB	5 litres	\$63.00
Chrysal RVB	5 litres	\$89.00
Chrysal SVB	250 pills	\$108.00
Silver Nitrate	100 gm	\$56.00
Sodium Thiosulphate	1 kg	\$5.00
Hydroxyquinolene Citrate Biocide	50 gm	\$20.00
Rogard Clear/Gold/Silgard	3.8 litre	\$75/\$69/92
Hydraboost	3.8 litre	\$51.00
Florisant 100	1 litre	\$64.00
Florisant 410	5 litre/25 litre	\$65/\$260

Kiwifruit Tray Component Prices

Traypac Packhouse & Coolstores Ltd.:

Standard single layer tray		\$1.01
Euro Double tray		\$1.11
Euro Bulk tray		\$1.49
Pallet P10		\$21.00
Cap P10		\$4.40
Standard pallet		\$10.30
Standard cap		\$4.60
Container pallet		\$12.40
Container cap		\$5.90
Plateau cap		\$4.30
Labour		\$0.05 per box
Glue		\$0.02 per box
VertV Boards		\$1.00

Flight Group Ltd:

Seedling trays	T1686	485 x 350 x 70mm	\$3.30 to \$3.50 per tray
	T1685	485 x 326 x 50mm	\$3.15 to \$3.25 per tray
Ace Pots	T1203	75 x 75 x 63mm	\$54.50 to \$45.50 per thousand
	T1204	100 x 100 x 83mm	\$97.50 to \$81.00 per thousand

Punnets	T1664	160 x 115 x 60mm	\$114.00 to \$95.00 per thousand
	T2189	152 x 108 x 63mm	\$98.50 to \$82.00 per thousand
	T1880	6 cavity punnet	\$147.50 to \$123.00 per thousand
	T2346	6 cavity punnet	\$119.50 to \$99.50 per thousand
These ace pots and punnets fit seed tray T1686			
Punnets	T1408	100 x 150 x 50mm	\$93.00 to \$77.50 per thousand
	T2131	100 x 150 x 60mm	\$95.00 to \$79.00 per thousand
	T1863	6 cavity punnet	\$117.50 to \$98.00 per thousand
These punnets fit seed tray T1685			
Propagation	T2642	45ml round cell 60	\$3.35 to \$2.70 per tray
Cell trays	T2643	30ml sq. cell 144	\$3.35 to \$2.70 per tray
	T2644	16ml sq. cell 198	\$3.35 to \$2.70 per tray

Twine:

Fruitfed Supplies: (Donaghys products)

No:16 Twine	\$26.20 per ball
No:32 Twine	\$24.77 per ball

2.11.7 Grading and Packing Charges - Horticultural Produce

See also *Section 3, Export Fruit Gross Margins*.

Contract Grading/Packing

Apples

Grading charges for one South Island firm are \$60 per bin but extra costs which include calcium drenching, individual labelling of fruit, cartons, strapping, pellets and thermal labelling of cartons bring those costs to around \$67 per bin. North Island prices are expected to be similar.

The average costs for packing across varieties and sizes and pack types are around \$3.20 per Tray Carton Equivalent or Retail Display Tray. (ENZA)

Avocado (Avocado Industry Council Ltd.)

Export avocados	\$3.50 to \$4.00 per tray
	\$7.00 to \$7.50 per double layer box
Local market avocados	\$3.50 to \$4.00 per crate

Kiwifruit (Note: These are average costs, which vary by pack type.)

<i>Seeka Kiwifruit Industries:</i>	Pack and Packaging
Hayward CK (Green)	\$1.60 per tray
Gold	\$2.50 per tray

2.11.8 Cool Storage

One Canterbury company charges the following:

Freezing:		
Fresh Fruit, Vegetables, Meat, approximately. 70 cents per kg		
Storing Frozen Goods	Fresh Fruit	\$24.00 per tonne per month or part thereof
	Vegetables	\$20.00 per tonne per month or part thereof
	Meat	\$25.00 per tonne per month or part thereof

A grower in Canterbury pays \$10 per apple bin per month for cool storage.

2.11.9 Pollination

Hive Hire

One Hawkes Bay company charges the following:

Stone, pipfruit and squash:	\$50 to \$65 per hive
Kiwifruit:	\$80 to \$90 per hive

Pollination (\$ per hive)	1999/2000	2000/2001
Pipfruit, stonefruit and berryfruit	45.00 - 50.00	45.00 - 50.00
Kiwifruit:		
Hawkes Bay	70.00 - 80.00	70.00 - 80.00
Taranaki	60.00 - 70.00	65.00 - 70.00
Auckland	50.00 - 75.00	60.00 - 80.00
Bay of Plenty	50.00 - 90.00	70.00 - 130.00

Source: Horticulture Monitoring Report – July 2001

Canterbury:

Vegetable seeds i.e. Cabbage, Cauliflower and Radish	\$80 per hive
Clover and Brassica	No charge
Carrot	\$100 per hive (extra if hives require feeding sugar syrup)

Hive Purchase

Nucleus Hive (4 frames with bees, a queen bee, brood and honey) \$35 to \$50

Source: Horticulture Monitoring Report July 2001

Bumble Bees (Purchase)

Zonda Resources: per hive

Serves up to 1,500 square metres. Both indoor and outdoor. \$70 to \$125

2.11.10 Weighbridge Charges

Fulton Hogan Ltd (Canterbury) - \$12.00 per weigh.

Another Canterbury company charges \$10 per weigh (for a truck and trailer)

Wrightson (Manawatu/Rangateiki) - \$8.00 per weigh (weighbridge is only 30ft so a truck and trailer would require two weighs).

2.12 REPAIRS AND MAINTENANCE

Expenditure on repairs and maintenance varies widely between farm types, districts and seasons. Farm profitability or otherwise is very often a major factor. Where records are not available the following should be used as a guide only.

2.12.1 Total Repairs and Maintenance per Farm/Orchard

Average figures are as follows:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$3.32
Waikato/Bay of Plenty Intensive	\$2.53
Central North Island Hill Country	\$3.31
Gisborne Large Hill Country	\$2.99
Hawkes Bay/Wairarapa Summer Dry	\$2.64
Hawkes Bay/Wairarapa Summer Moist	\$2.79
Manawatu/Rangatikei Intensive	\$1.50
South Island Merino	\$2.47
Canterbury/Marlborough Hill Country	\$2.41
Canterbury/Marlborough Breeding and Finishing	\$2.51
Otago Dry Hill	\$2.01
Southland/South Otago Hill Country	\$2.43
Southland/South Otago Intensive	\$3.20
National	\$2.67
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$78
Waikato/Bay of Plenty	\$79
Lower North Island	\$81
Canterbury	\$58
Southland	\$58
West Coast	\$75
National	\$75
<i>Deer</i>	<i>(per su)</i>
North Island	\$5.65
South Island	\$3.85
<i>Arable</i>	<i>(per ha)</i>
Canterbury	\$74
<i>Horticulture</i>	<i>(per ha)</i>
Kiwifruit	\$1,525
Hawkes Bay Pipfruit	\$410
Nelson Pipfruit	\$638

Source: MAF Monitoring Reports - July 2001

2.12.2 Repairs and Maintenance - Farm Improvements, Plant and Machinery

Where precise information is unavailable, expenditure on repairs and maintenance of farm improvements and plant may be estimated by using the following rates:

% capital value per annum		
Dwellings	1 to 3%	depending upon the age of the building
Farm buildings	1 to 3%	
Piggeries	2 to 5%	
Water supply	Up to 5%	depending on water type
Implements and plant	5 to 15%	depending upon use
Roads, tracks and culverts	1 to 5%	depending on locality
Yards and dip	2.5 to 5%	
Fences	1%	

Farm Vehicles

Where no other figures are available use 100% of cost over the economic life of the vehicle. See *Section 2.13.2* for tractor examples.

2.13 VEHICLE EXPENSES

2.13.1 Total Vehicle Running Expenses

The following figures can be used as estimates for budgeting purposes where details are not available for the farm or orchard. Depending on the locality and type of property, typical total vehicle running expenses (including fuel, oil, repairs and maintenance, registration etc) on all farm vehicles including private car use, are as follows:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$1.42
Waikato/Bay of Plenty Intensive	\$1.34
Central North Island Hill Country	\$0.84
Gisborne Large Hill Country	\$0.48
Hawkes Bay/Wairarapa Summer Dry	\$1.02
Hawkes Bay/Wairarapa Summer Moist	\$1.00
Manawatu/Rangatikei Intensive	\$1.82
South Island Merino	\$1.28
Canterbury/Marlborough Hill Country	\$1.30
Canterbury/Marlborough Breeding and Finishing	\$1.33
Otago Dry Hill	\$1.30
Southland/South Otago Hill Country	\$1.17
Southland/South Otago Intensive	\$1.91
National	\$1.21
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$31
Waikato/Bay of Plenty	\$22
Lower North Island	\$36
Canterbury	\$22
Southland	\$21
West Coast	\$26
National	\$26
<i>Deer</i>	<i>(per su)</i>
North Island	\$1.98
South Island	\$2.40
<i>Arable</i>	<i>(per ha)</i>
Canterbury	\$54
<i>Horticulture</i>	<i>(per ha)</i>
Kiwifruit	\$1,090
Hawkes Bay Pipfruit	\$826
Nelson Pipfruit	\$686

Source: MAF Monitoring Report - July 2001

For details see individual items in this section.

See also Section 2.12.3 for estimates of the repairs and maintenance component of expenditure on vehicles.

2.13.2 Tractor Running Costs

A useful calculation to determine the fuel requirements of a tractor is:
0.21 litres per kilowatt hour.

Guide to Tractor Fuel Requirements for Individual Field Operations.

Operation	Fuel Consumption litre/ha
Subsoiling	15
Ploughing	21
Heavy cultivation	13
Light cultivation	8
Rotary cultivation	13
Fertiliser distribution	3
Grain drilling	4
Rolling	4
Mowing, tedding, baling	3
Forage harvesting	15
Spraying	1

Source: "Choosing and Using Farm Machines", B. Whitney, 1988.

Guide for Fuel Consumption under Minimum Cultivation and Normal Cultivation Conditions.

(This guide is based on 0.24 and 0.32 litres per kW hour.)

Tractor Power		Minimum Cultivation	Normal Cultivation
HP	kW	(0.24 l per kW hr)	(0.32 l per kW hr)
16	11.5	2.76 litres per hour	3.68 litres per hour
30	22.0	5.28 litres per hour	7.04 litres per hour
40	30.0	7.20 litres per hour	9.60 litres per hour
50	37.0	8.88 litres per hour	11.84 litres per hour
64	48.0	11.52 litres per hour	15.36 litres per hour
75	55.7	13.37 litres per hour	17.82 litres per hour
80	60.0	14.40 litres per hour	19.20 litres per hour
103	77.2	18.53 litres per hour	24.70 litres per hour
160	119.0	28.56 litres per hour	38.08 litres per hour

Total Tractor Running Costs - Examples**(i) 75 kW (100 HP) 2WD Tractor**

Replaced after 3500 hours (6 years)

Initial Cost \$78,000; Resale Price \$40,000

Running: Average 585 hours per year

<i>Fixed costs per annum:</i>		
Opportunity cost \$78,000 at 5.5% (Real)	\$4,290.00	
Replacement cost \$78,000 - \$40,000		
\$38,000 x sinking fund factor (5% for 6 years) 0.180975	\$6,877.05	
Annual licensing fee	\$26.55	
Insurance	\$500	
		\$11,693.60
Total fixed cost per hour (585 hours/year)		\$19.99
<i>Variable costs per hour:</i>		
Fuel usage - 18 litres at 53¢/litre	\$9.54	
- based on minimum cultivation conditions		
Oil and filters 15% of fuel cost	\$1.43	
Repairs and maintenance 100% of purchase price over 'economic life' of tractor (10000 hrs)	\$7.80	
Total variable costs per hour excluding labour		\$18.77
Total cost (fixed plus variable) per hour		\$38.76

(ii) 95 kW (124 HP) 4WD Tractor

Replaced after 4000 hours (6 years)

Initial Cost \$118,300; Resale Price \$65,000

Running: Average 670 hours per year

<i>Fixed costs per annum:</i>		
Opportunity cost \$118,300 at 5.5% (Real)	\$8,281.00	
Replacement Cost (\$118,300 to \$65,000)		
\$53,300 x Sinking fund factor (5% for 6 years) 0.180975	\$6,506.50	
Annual licensing fee	\$26.55	
Insurance	\$650.00	
		\$16,829.02
Total fixed cost/hour assuming 670 hours per year		\$25.12
<i>Variable costs per hour:</i>		
Fuel usage - 25 litres at 53¢/litre	\$13.25	
- based on minimum cultivation conditions		
Oils and filters 15% of fuel cost	\$1.99	
Repairs and maintenance 100% of purchase price over 'economic life' of tractor (10000 hrs)	\$11.83	
Total variable cost per hour excluding labour		\$27.07
Total cost (fixed plus variable) per hour		\$52.19

(iii) 150 kW (200 HP) 4WD Tractor

Replaced after 4500 hrs (6 years)

Initial Cost \$210,000; Resale Price \$115,000

Running: Average 750 hours per year

<i>Fixed costs per annum:</i>	
Opportunity cost \$210,000 at 5.5% (Real)	\$11,550.00
Replacement cost (\$210,000 - \$115,000)	
\$95,000 x Sinking fund factor (5% for 6 years) 0.180975	\$17,192.63
Annual licensing fee	\$26.55
Insurance	\$750.00
	\$29,519.18
Total fixed cost/hour assuming 750 hours per year	\$45.41
<i>Variable costs per hour:</i>	
Fuel usage - 40 litres at 53¢/litre	\$21.20
- based on minimum cultivation conditions	
Oil and filters 15% of fuel cost	\$3.18
Repairs and maintenance 100% of purchase price over 'economic life' of tractor (10000 hrs)	\$21.00
Total variable cost per hour excluding labour	\$45.38
Total cost (fixed plus variable) per hour	\$90.79

2.13.3 Car Operating Costs

Source: Automobile Association; Directions, Autumn 2001

Petrol-driven vehicles estimated on 12,000km per year, first five years of ownership

	Up to 1,300cc	1,301-1,600cc	1,601-2,000cc	above 2,000cc
Total fixed costs:	\$4,459	\$5,735	\$7,596	\$8,850
Running costs:				
Petrol	\$803.09	\$888.26	\$1,107.29	\$1,326.31
Oil	\$36.48	\$36.48	\$36.48	\$36.48
Tyres	\$130.58	\$151.35	\$157.18	\$162.77
Repairs & Maintenance	\$703.18	\$761.78	\$836.87	\$823.88
Total Running Costs	\$1,673.32	\$1,837.87	\$2,137.83	\$2,349.44
Running Cost per km	49.3 cents	58.7 cents	74.0 cents	88.0 cents
Fixed + Running Costs	\$6,132	\$7,573	\$9,734	\$11,199

Fixed cost is made up of the cost of depreciation, interest on outlay, insurance, licensing and warrants of fitness.

Extended Operating Costs from 10,000 to 50,000 km per year (2001 figures).

km per year	up to 1300cc	1301-1600cc	1601-2000cc	Over 2000cc
10,000	57.5 c	69.1 c	89.7 c	\$1.05
12,000	51.1 c	63.1 c	81.1 c	93.3 c
20,000	32.7 c	39.7 c	51.3 c	58.1 c

30,000	24.9 c	29.8 c	38.4 c	43.1 c
40,000	19.7 c	23.1 c	30.0 c	33.8 c
50,000	18.5 c	21.3 c	27.2 c	31.0 c

2.13.4 Fuel, Oil and Grease

Petrol	- Unleaded	(91 octane)	87.42 cents per litre
	- Unleaded	(96 octane)	91.43 cents per litre
Diesel			52.9 cents per litre

Note: Petrol and diesel prices are bulk delivered to farm.

Oil - One major N.Z. Company's oil prices:

	Container size	Wholesale (delivered)
Universal Tractor Oil 20	209 litre	\$3.86 per litre
Gear Oil 80 EP	60 litre	\$4.46 per litre
(Two Stroke Oil)	60 litre	\$4.46 per litre
Multi-purpose grease, heavy duty	20 kg	\$7.83 per kg
Hydraulic Fluid HLP46	60 litre	\$3.58 per litre
Antifreeze	20 litre	\$4.25 per litre
Grease:		
Gun cartridge		\$6.50
Carton of 12 cartridges		\$57.38
Bucket	2.5 kg	\$21.95

Agmax Industries Ltd: (Prices includes freight on orders over \$135)

Super Tractor Oil Universal (SAE 20W-30)	20 litre / 205 litre	\$72.89/\$666.67
Vacuum Pump Oil	20 litre / 205 litre	\$66.67/\$573.33
Grease Cartridges – heavy duty NLGI Class No. 2		\$53.33 per dozen

2.13.5 Tyres and Tubes

Bridgestone and Firestone:

	Price each
Tubes:	
Tractor/Earthmover/Forestry and Loader tubes, 9-24 to 30.5-32	\$32.00 to \$180
Tyres:	
Radial 45 degree rear tractor tyres, 11.2R24F7000 to 18.4R38F7000	\$500 to \$1,350
Cross-ply rear tractor tyres, 9-20ATC6 to 11-42RT10	\$300 to \$1,085
Farm/implement/utility tyres,	
All track utility, 12/12.5-18ATU12 to 16.9-28ATU10	\$630 to \$1,000
Rancher, 400-12RANCH4	\$44
Open centre, 600-16/6T133 to 750-16/8T133	\$125 to \$195
Farm, 10-15.3FARM10 to 11.5-15.3FARM16	\$200 to \$340
Forestry tyres, 28L26FS14 to 30.5-32FS16	\$3,655 to \$4,250

2.13.6 Licensing/Road Charges

Re- Licensing Fees - (12 months) as at 24th January 2002 (including G.S.T.)

Private Car		\$202.85
Agricultural Machinery	Exempt Class B	\$29.50
Farmers Car	Exempt Class B	\$56.50
Farmers Motorcycle	Exempt Class B, 61cc and over	\$35.10
Trucks (not subject to TLF)	Up to 3500kg	\$202.85
	3501kg and over	\$204.35
Farmers Truck	Exempt Class B up to 3500kg	\$56.50
	Exempt Class B over 3500kg	\$56.50
Tractor	Exempt Class B	\$35.10
Trailer	Exempt Class B up to 3500kg	\$35.10
	Exempt Class B over 3500kg	\$56.50
Domestic Trailer	up to 3500kg	\$35.10
ATV	Exempt Class B	\$35.10

6-month licences are available and are usually approximately 50% of the 12 month fees.

Road User Charges (RUC)

The cost of using New Zealand's road is recovered from road users via levies in the price of some fuels or via Road User Charges (RUC).

A vehicle subject to RUC is any vehicle that is diesel powered or has a manufacture's gross vehicle mass (GVM) of more than 3.5 tonnes (3500kg) or is powered by a fuel not taxed at source. Where the manufacture's GVM is more than 3.5 tonnes (3500kg) an approved hubodometer must be fitted to a non-lifting axle on the left-hand side of the vehicle. A current RUC licence label must be displayed while operating the vehicle on public roads.

Fuels taxed at source are petrol, compressed natural gas (CNG) and Liquified Petroleum Gas (LPG).

There are three types of RUC licence to choose from. In the majority of cases a **distance** licence will be required. Distance licensed vehicles are classified according to whether the vehicle is powered or unpowered, the number of axles, and the number of tyres per axle. Distance licences are purchased in units of 1000 km or 621 miles or multiples thereof. Vehicles must be continuously licensed. This means that a new licence must be purchased before the distance covered by the old licence is exceeded.

In March 2002 a 10,000 km distance lisenre for a 2 tonne vehicle cost \$195.16 (including GST), however all charges were to be increased on 1 April 2002.

Time licences are purchased for a period of one to 12 months. They are required for those vehicles being driven with dealer plates and special machinery (front-end loaders, trailer scrapers, self-propelled trench diggers and excavators, etc).

Supplementary licences are available for carriers of heavier than normal loads for a short distance. These licences are purchased in units of 50 km or 31 miles and replace the original licence for the distance. Once the Supplementary licence has expired the original licence will again be in force. Both licences must be displayed.

All licences must match the vehicle concerned, i.e. loaded weight, vehicle weight, vehicle

type and registration plate. It is important that the correct licence weight is bought. To determine the correct unladen weight of the vehicle the vehicle manual or local dealer should be referred to. In all cases the expected vehicle load should be added to the unladen weight to establish the licence weight. This weight is then rounded up to the nearest tonne for the licence weight to be purchased.

2.13.7 Combine Harvester Running Costs

148 kW (200 HP) Header Harvester - Total Running Costs:

Replaced after 3000 hours (15 years) 200 hours per year

Initial Cost \$295,000; Trade in Value \$115,400

<i>Fixed costs per annum:</i>		
Opportunity cost \$295,000 at 5.5% (Real)	\$12,650.00	
Replacement cost (\$295,000 - \$115,400)		
\$179,600 x sinking fund factor		
(5% for 15 years) 0.046342	\$8,323.02	
Annual licence (6 months)	\$13.28	
Insurance	\$1,500.00	
		\$22,486.30
Total fixed costs per hour assuming 200 hrs per year		\$112.43
<i>Variable costs per hour:</i>		
Fuel (.24 litres/kW hr) 30.48 litres at 53c/litre	\$16.15	
Oil and filters 15% of fuel cost	\$2.42	
Repairs and maintenance 100% of purchase price		
over economic life (5000 hours)	\$59.00	
Total variable costs per hour excluding labour		\$77.57
Total costs (fixed plus variable) per hour		\$190.00

2.14 PROFESSIONAL FEES

2.14.1 Accountancy Fees

Accountants base their fees on input of time taken in compiling financial statements, tax returns and other services. Some of the reasons why fees vary considerably (time being one of the most important factors) are:

- The adequacy of the presentation of farm records to the accountant by the farmer.
- The form of ownership - individual, company or partnership, and if there is a trust entity involved.
- The amount of information the farmer wants: advice on management, financial advice, trial balances, etc.
- The degree of intensification of the farming operations.
- The amount of administration undertaken by the accountant i.e. G.S.T. returns, budgetary control, receiver/payee of all income/expenditure for the farmer.

An approximate range of fees typically charged for pastoral and cropping farms would be from \$1000 to \$4000 per annum, depending on service provided, with a typical fee for a standard ownership and trading structure, being around \$2300 for a 3500 su farm.

A correctly prepared reconciled cash book either manual or computerised with all other records being well presented for a standard ownership and trading structure, would reduce that typical fee to between \$1,500 and \$2,000.

2.14.2 Farm Consultancy Charges

Consultancy charges are usually based on a rate of between \$60 to \$120 per hour. The fee charged will depend on travelling and administration expenses and computer time.

Agriculture New Zealand Ltd provides a full range of consultancy services covering on-farm advice in the Dairy, sheep and beef and Horticulture Sectors, agribusiness advice to industry and government and has a significant rural training business.

Consultancy fees are normally based on half day or full day rates within the hourly range discussed above. Rates will vary depending on the complexity of the job and the experience of the consultant(s) involved. Travelling is charged at \$0.60 per kilometre, administration at \$30 per hour and other disbursements are also charged at cost.

Livestock Improvement Corporation offers the *FarmWise* service which makes highly experienced advisors available to individual farmers at an hourly or half-day visit rate. Half day visits vary from \$320 to \$360 or you can have a set six visit package which consists of six half days of consultancy. Their services include all aspects of dairy farming including business planning, budgets/cashflows, feed planning, employment of staff, contracts and bench marking.

2.14.3 Land Transfer Fees

This fee is charged by the *Land Titles Office* on all land transactions, such as transfers, mortgages and related documents. Registration of any instrument is \$38.00, however, the first Certificate of Title is free. Every Certificate of Title, other than the first, cost \$5.00 each. The cost of an ordinary transfer of title is \$128.00, however, if the land is in more than one title the cost of transferring each additional title is \$5.00.

The cost of registration of a mortgage with one Certificate of Title is \$38.00

2.14.4 Legal Fees

The former system of a N.Z. wide scale of minimum and maximum charges has been abolished. Fees are now worked out on a more appropriate basis, taking into account the nature of the job and expenses incurred by the solicitor or law firm. In general they are based on an hourly rate (in the region of \$120 to \$220.) Lawyers are encouraged to give written estimates for the cost of a job. Anyone seeking a solicitor's help or advice should ask for an estimate (in writing) and both parties should have a clear understanding of what work that estimate is to cover.

Property Purchase

Fees charged vary widely depending on circumstances and how much work is involved. Generally around \$600 to \$1000 for the average situation, depending on whether finance is required.

Where the vendor is registered for GST and there is a dwelling house on the property, there is deemed to be two supplies – exempt supply (dwelling and curtilage) and a taxable supply (balance of property). The two must be arrived at by an apportionment along IRD guidelines and definitions. These can be completed by a registered valuer or by *Quotable Value N.Z.* at a cost of +\$80. Examples where a dwelling and curtilage is required are where a residential use is combined with commercial/industrial use, for example, lifestyle blocks and farms.

Stamp Duty

This has been phased out.

Family Trusts

A trust is a legal arrangement between two parties where one party (the trustee) holds assets for the benefit of others (the beneficiaries). The trustee is the legal owner of the trust assets but is not normally a beneficiary of the trust.

Before estate duty was abolished in 1992, trusts were regarded as a way for wealthy people to avoid costly estate duties. Contrary to popular belief, trusts have been used more often as a way to manage the transfer of assets from one generation to another.

Guardian Trust:

Charges are based on the complexity of the trust and time spent thereon, however, for the preparation of a standard trust the cost is \$1250.

2.14.5 Real Estate Charges

There is now no scale or recommended fee relating to any real estate transaction. However most agents still work on a commission basis. The most common fee structures are in the following approximate ranges:

Farm Sales:

Basic fee of \$375 plus commission of 3.75% up to \$350,000 and 2% thereafter. The general criteria by which agents fix fees now relate to the level of professional services which the individual company offers. When vendors select intensive marketing programmes, higher fees may be levied. If vendors participate in advertising costs then lower basic fees may be rendered. Sole agencies may attract lesser fees than general agencies.

Auction Sales (Sales other than mortgagee sales):

In general these are levied at the same rate as residential sales. The auctioneer may, in addition, with the vendor's authority, charge to the vendor all auction advertising, flagging, other promotional costs and disbursements.

In addition, an auctioneer may levy an offering fee if the property is not sold at auction or, alternatively, seek a term of sole agency after the auction sale to enable a sale to be concluded.

2.14.6 Valuation Charges

Valuation charges are no longer subject to any minimum scale of charges. Valuers may now set their own charges which are usually based on an hourly rate and vary depending on the degree of skill or responsibility required, expenses incurred and other factors. Travelling allowance (mileage) is normally charged at the average State Service rate.

Examples:

- For a valuation of a 366 ha property in North Canterbury the valuation would take approximately 14 hours and cost \$1,000 to \$1,200 (plus travel and GST).
- For a valuation of a small (100 ha) pastoral property - about \$450 to \$500 (plus travel and GST).
- For a valuation of a 10 ha orchard property the cost would be about \$600 to \$800 plus GST (at least one day's work).
- For a glasshouse property (about ½ day) - \$400 to \$600.
- For residential property in a rural district \$250 (plus travel and GST)

2.14.7 Survey Fees

Connell Wagner Limited:

Subdivision of rural property requires an application to Council in terms of the District Plan and the completion of a legal survey so that new Certificates of Title can be issued. Survey fees are charged on a time basis plus expenses incurred and will vary depending on the location and size of the property being subdivided. Average fees would be expected to be:

For smaller subdivisions - typically 2 to 3 lots	\$4,000 to \$6,000
For medium size subdivisions - typically 3 to 10 lots	\$6,000 to \$25,000
For large subdivisions	from \$25,000

Council's processing fees	\$1,000 to \$2,000
<i>Land Information New Zealand</i> fees	\$1,000 to \$2,000
plus Solicitor's fees and costs of complying with Council's subdivision conditions (eg water supply, access etc).	

2.15 ADMINISTRATION EXPENSES

Refer also to *Section 2.14. Professional Fees.*

2.15.1 Average Administration Costs

Total annual administration expenses vary widely between farms and orchards.

The following are indicative costs:

<i>Sheep and Beef</i>	<i>(per su)</i>
Northland	\$3.18
Waikato/Bay of Plenty Intensive	\$3.01
Central North Island Hill Country	\$1.98
Gisborne Large Hill Country	\$2.24
Hawkes Bay/Wairarapa Summer Dry	\$2.49
Hawkes Bay/Wairarapa Summer Moist	\$2.14
Manawatu/Rangatikei Intensive	\$2.73
South Island Merino	\$1.82
Canterbury/Marlborough Hill Country	\$2.29
Canterbury/Marlborough Breeding and Finishing	\$2.49
Otago Dry Hill	\$2.14
Southland/South Otago Hill Country	\$2.01
Southland/South Otago Intensive	\$3.15
<i>Dairy</i>	<i>(per cow)</i>
Northland	\$52
Waikato/Bay of Plenty	\$47
Lower North Island	\$48
Canterbury	\$29
Southland	\$37
<i>Deer</i>	<i>(per su)</i>
North Island	\$3.77
South Island	\$4.37
<i>Horticulture</i>	<i>(per ha)</i>
Kiwifruit	\$1,534
Hawkes Bay Pipfruit	\$1,248
Nelson Pipfruit	\$1,356

Source: MAF Monitoring Reports - July 2001

2.15.2 Telephone Costs

Telecom:

Residential Products and Services		
Connections:	Features	Cost per month
HomeLine	Unlimited local calls	\$33.82
HomeLine Economy	20c per local call, calls longer than 2hrs are charged at an additional 20c for each 2hr period	\$22.00
Second Line:		
Second HomeLine		\$26.62

Second HomeLine Economy		\$22.00
Second Line	One-off connection charge	\$40.00
Connection		
Call Plans:		
Residential National Calling		
Favourite Place –	Unlimited calls 24hrs a day (minimum rental 1	\$17.73
Neighbouring Area	month)	
Favourite Place –	Unlimited off-peak calls (minimum rental 1	\$25.78
NZ	month)	
National Plans for private dwellings (prices include GST)		
Quick Call Plan	Monthly charge plus \$0.09/min off-peak,	\$5.00
	\$0.29/min peak	
\$5 Anytime Plan	\$5 is the most you'll pay for any call in NZ up to 2hrs. Calls cost	
	\$0.19/min up to \$5 off-peak and \$0.45/min up to \$5 peak	
\$3 Weekends &	\$3 is the most you'll pay on weekends and weeknights. Calls cost	
Weeknights Call	\$0.19/min up to \$3 on weekends/weeknights and \$0.45/min on	
Plan	weekdays.	
Home to Mobile Calling Plans (Price includes GST)		
Off Peak Plan	\$0.49/min off-peak, \$0.71/min peak	
Anytime Plan	\$0.71/min anytime	

Small Business Products and Services

Connections:

BusinessLine		\$58.42
Multiple Business Lines	2 to 5 lines, wiring in place or required	\$74/\$106
(to existing jackpoint)	6 or more lines wiring in place or required	\$63/\$87
SmartLine	Inbuilt range of smartphone features incl. call diversion, call waiting, auto callback, auto recall and last number redial. (12 month contract with penalty for early disconnection)	\$59.95
SmartLine Plus	Six standard smartphone services plus \$25 worth of free calling per month	\$79.95
MessageLine For Business	Standard business line rental plus call minder (minimum 12 months)	\$59.95
MessageLine Plus	Standard business line rental, call minder and \$25 worth of free calling per month	\$79.95
FaxLine	Standard Business line rental plus FaxAdvantage (minimum 12 months)	\$59.95
FaxAdvantage	\$35 installation fee plus monthly rental	\$10.50

Business National Calling:

NZ Wide Plan	Calls within region \$0.09/min, within island \$0.29/min, between islands \$0.39/min, landline to mobile \$0.42/min
Flat Rate Plan	National calls \$0.25/min, landline to mobile \$0.42/min

Toll Charges - Refer to Telephone Directory

Mobile Phone Plans

Telecom: These prices include GST

Plan	Mthly Fee	Free Minutes	Peak National	Off Peak National
Go Prepaid	None	None	\$1.35	\$0.49
Go Mobile – Off Peak	\$14.95	50 off peak	\$1.29	\$0.49
Go Mobile – Anytime	\$14.95	15 anytime	\$1.29	\$0.49
Go Free 30	\$24.95	30 anytime	\$0.99	\$0.49
Go Free 100	\$24.95	100 off peak	\$0.99	\$0.49
Go Free 200	\$29.95	200 off peak	\$0.99	\$0.49
Go Ahead 65	\$75.00	65 anytime	\$0.45	\$0.25
Go Ahead 200	\$125.00	200 anytime	\$0.44	\$0.25
Go Ahead 400	\$190.00	400 anytime	\$0.37	\$0.25
Go Ahead 750	\$300.00	750 anytime	\$0.35	\$0.25

Off peak national calling is from 7pm to 7am weeknights, as well as all weekends and national statutory holidays.

MetPhone - The New Zealand Meteorological Service provides a telephone weather forecast service for the whole of the country. Forecasts can be accessed from any part of New Zealand through Telecom for a charge of \$1.15 a minute. Forecasts for each region can be obtained by 'phoning **0900 999** then the STD number for the region. e.g. 03 for Canterbury.

Also:

N.Z.Brief Forecast

0900 999 64

N.Z.Mountain Forecast

0900 999 66

MetFax – weather when it matters 0900 77 999. Calls cost \$5.40 for the first minute and 99 cents per minute thereafter.

2.15.3 Internet Charges

Telecom: These prices include GST

Xtra Value Pack	Flat rate access	\$27.95 per month
Xtra Daytime Pack	Surf all day until 5pm and all night after 11pm	\$19.95 per month
Xtra Prepay 10	10 hours access	\$10.00 per month
Sky Fi	Flat rate access, Sky TV plus home phone	\$99.00 per month

Paradise Net:

Primary Plan	20 hours internet access	\$10.00 per 28 days
Paradise Plan	250 hours internet access	\$20.00 per 28 days

Thug:

Diamond Account	Flat rate internet access	\$29.95 per month
Gold Account	250 hours internet access	\$24.95 per month*
Bronze Account	15 hours internet access	\$20.00 per month*
Take 5 Account	5 hours internet access	\$10.00 per month*
Anytime	Pay as you go – no monthly fee	\$2.50 per hour

*\$2.00 per extra hour used above limit.

2.15.4 Postage

Domestic Rates and Services: These prices are GST inclusive

Envelope size	Standard Post	Fast Post
Medium (up to 120mm x 235mm)	\$0.40	\$0.80
Extra Large (260mm x 385mm)	\$0.90	\$1.30

Packets:

PacketPost: (New Zealand Post)

Delivery Targets	Post	Fastpost
Across Town	next day	next day
Within Island	1 to 2 days	next day
Between Islands	2 to 3 days	next day

Service	Ticket	Maximum weight	Price per unit	Tickets per book	Price per book
Post	500g	up to 500g	\$1.80	20	\$36.00
	1 kg	up to 1kg	\$2.00	20	\$40.00
	1.5 kg	up to 1.5 kg	\$2.80	20	\$56.00
FastPost	500g	up to 500g	\$2.40	20	\$48.00
	1kg	up to 1kg	\$2.80	20	\$56.00
	1.5 kg	up to 1.5 kg	\$3.51	20	\$70.20

Parcels:

ParcelPost: (New Zealand Post)

Target delivery

Destination	Delivery times
Across town	Next working day
Within Island	1 to 2 working days
Between Islands	2 to 3 working days

Parcel Ticket	Maximum weight per ticket	Price
Across town	For first 25 kg	\$3.00
Short haul up to 150km within Island	For first 15 kg	\$5.95
	For each extra 10kg	\$4.00
	For first 10kg	\$7.95
Within Island over 150km	For each extra 5kg	\$4.50
	For first 5kg	\$10.95
Between Islands	For each extra 5kg	\$9.00
	Up to 1kg	\$3.50
Nation-wide	Up to 2kg	\$4.75

2.15.5 Courier Charges

New Zealand Couriers:

Point of origin - Christchurch

Ticket Type	Area	Weight or Volume	Cost
South Island:			
Local	Christchurch Metro including Lyttelton, Belfast, Templeton	0.1m ³ / 25kg	\$3.17
Outer Area	South to Ashburton North to Kaikoura	0.1m ³ / 25kg	\$3.83
Shorthaul	South Island North of Dunedin	0.025m ³ / 15kg	\$5.55
Longhaul	South of Dunedin (Central Otago)	0.025m ³ / 5kg	\$8.33
North Island:			
Capital Link	Wellington Metro including Otaki and Hutt Valley	0.025m ³ / 5kg	\$10.04
Inter Island	Rest of the North Island	0.025m ³ / 5kg	\$17.00

Post Haste Couriers:

Code	Ticket Type – Description	Weight or volume	Ticket Rate
LTR	Express Pak Letter 225mm x 115mm (DLE)	Unlimited weight	\$1.95
SML	Express Pak Small 265mm x 200mm (A5)	Unlimited weight	\$2.35
MED	Express Pak Medium 350mm x 260mm	Unlimited weight	\$4.40
LGE	Express Pak Large 450mm x 360mm	Unlimited weight	\$5.85
MS	Localink Chch metro area	Per 0.125m ³ /25kg	\$1.95
RS	Ruralink Up to 75km from major towns	Per 0.050m ³ /10kg	\$2.80
RN	Regionalink Up to 150km from major towns	Per 0.050m ³ /10kg	\$3.90
PE	Intra Parcel (Rest of Sth Is.) Next morning business delivery	Per 0.030m ³ /8kg	\$6.95
NE	Inter Parcel (Nth Is.) Next morning business delivery	Per 0.030m ³ /8kg	\$12.95
SG	Signature Express (Within Is.) Next morning business delivery	Per 0.012m ³ /3kg	\$3.50
SPBI	Small Parcel Between Islands Inter island next day delivery	Per 0.012m ³ /3kg	\$6.50
TD	Two Day Inter island two day service	Per 0.030m ³ /8kg	\$8.90
SD	Saturday Delivery (Nationwide)		\$2.75

NZ Couriers International Direct:

Code	Area	Days to delivery
A	Australian Main Centres	1 to 2
B	Australian Other Centres/Fiji	1 to 3
C	South Pacific/South East Asia	2 to 3
D	North East Asia/USA/Canada	1 to 3
E	United Kingdom	2 to 3
F	Europe/South America/Middle East	2 to 4
G	Rest of the World	3 to 5

Express Documents

Weight	A	B	C	D	E	F	G
0.5 – 2.0	\$17-\$44	\$24-\$54	\$34-\$88	\$40-\$115	\$42-\$120	\$44-\$122	\$64-\$160
2.5 – 4.0	\$53-\$76	\$64-\$92	\$106-\$140	\$140-\$185	\$146-\$198	\$148-\$202	\$192-\$260
4.5 – 6.0	\$83-\$100	\$101-\$124	\$148-\$170	\$195-\$223	\$211-\$244	\$216-\$250	\$278-\$322
6.5 – 8.0	\$105 –120	\$131-\$152	\$177-\$198	\$232-\$259	\$254-\$284	\$260-\$290	\$335-\$374
8.5 – 10.0	\$125-\$140	\$159 -180	\$205-\$226	\$268-\$295	\$294-\$324	\$300-\$330	\$387-\$426
Per kg	\$5	\$10	\$13	\$13	\$16	\$21	\$25

Express Parcels

Weight	A	B	C	D	E	F	G
0.5 – 2.0	\$36 - \$66	\$44 - \$74	\$53 - \$113	\$65 - \$137	\$62 - \$140	\$66 - \$144	\$85 - \$181
2.5 – 4.0	\$76 - \$98	\$94 - \$112	\$133-\$167	\$161-\$207	\$166-\$216	\$170-\$222	\$213-\$277
4.5 – 6.0	\$104-\$120	\$121-\$144	\$174-\$195	\$218-\$249	\$228-\$262	\$235-\$270	\$293-\$333
6.5 – 8.0	\$125 –130	\$151-\$172	\$202-\$223	\$259-\$289	\$273-\$306	\$281-\$314	\$345-\$381
8.5 – 10.0	\$135-\$160	\$179-\$200	\$230-\$251	\$299-\$329	\$317-\$350	\$325-\$358	\$393-\$429
Per kg	\$5	\$10	\$13	\$13	\$16	\$21	\$25

Up Grade Services

9am Express (Express documents only)	Australia	\$5 surcharge
	Asia	\$65 surcharge
Noon Express (Express documents only)	Australia	\$45 surcharge
	Asia	\$55 surcharge
Priority (Express documents and parcels)	Anywhere in the world	\$40 surcharge
Import Direct – collection of Express documents or parcels from over 50 countries		\$20 surcharge

Express Pack Envelope

New Zealand Couriers:

E10 – DLE	Paper – 225mm x 115mm	20 per packet	\$1.69
E11 – DLE	Plastic – 225mm x 115mm	20 per packet	\$1.90
E20 – A5	Plastic – 190mm x 260mm	20 per packet	\$2.11
E30 – Legal	Paper – 225mm x 115mm	20 per packet	\$3.33
E40 – A4	Plastic – 325mm x 235mm	20 per packet	\$4.16
E50 – Foolscap	Plastic – 390mm x 280mm	10 per packet	\$5.55
E60 – A3	Plastic – 415mm x 360mm	10 per packet	\$7.93
Document Pack	Paper – 260mm x 379mm	10 per packet	\$3.81
PP	Plastic – 440mm x 450mm	10 per packet	\$11.63

CourierPost:

Pre-paid TrackPak	Dimensions	Maximum weight	Price per Trackpak	Quantity per pack	Pack price
DLE	130mm x 240mm	3kg	\$1.95	25	\$48.60
A5	190mm x 280mm	3kg	\$2.20	25	\$55.00
A5 Bubble	190mm x 280mm	3kg	\$3.20	10	\$31.85
A4	257mm x 325mm	3kg	\$4.30	25	\$108.00
A4 Bubble	257mm x 325mm	3kg	\$5.15	10	\$51.30
Foolscap	280mm x 380mm	3kg	\$5.70	25	\$143.10
Line flow	400mm x 440mm	3kg	\$10.25	25	\$256.50

2.15.6 Subscriptions (Magazines/Farming Organisations)

Some examples are:

Magazines

"Dairy Exporter"	\$35.00 per year or \$5.00 per copy
"Grape Grower NZ"	\$20.00 per year or \$4.95 per copy
"Growing Today"	\$59.40 per year or \$4.95 per copy
"Hort News"	\$60.00 per year or \$5.00 per copy
"Lifestyle Farmer"	\$25.00 per year or \$4.95 per copy
"The Orchardist"	\$81.00 per year or \$9 per copy
"The Deer Farmer"	\$79.95 per year (11 issues)

Organisations*Young Farmers:*

Senior member	\$44.44
Tertiary (with documented proof)	\$31.11
School	\$8.89
Advisory	\$8.89

2.15.7 Aerial Photographs and Farm Maps**Aerial Photographs***New Zealand Aerial Mapping Ltd.:***Mapping and Land information**

Postage and Processing Fee per order (approx. 5 day delivery)		\$24.00
Archival Fee for “Classic Photography” taken pre 1995 – priced per “Flight Run”		\$32.00
Photographic Enlargements (Most Recent Colour and/or Black and White Imagery:		
Contact Prints	23 x 23	\$26.67
A4 (21 x 29)	23 x 34	\$57.78
A3 (29 x 42)	34 x 46	\$75.56
A2 (42 x 59)	46 x 70	\$124.44
A1 (59 x 84)	70 x 95	\$160.00
Other sizes		\$0.027 per cm
Half Tones:		
A4	21 x 29	\$102.22

A3	29 x 42	\$115.56
A2	42 x 59	\$128.89
A1	59 x 84	\$160.00
A0	70 x 95	\$177.78
Scans for Farm Management Packages:		
A4 Digital Scan (including cost of A4 enlargement)		\$124.44
A3 Digital Scan (including cost of A3 enlargement)		\$142.22
A2 Digital Scan (including cost of A2 enlargement)		\$213.33
Other Available Products (separate quotes)		
Contour Maps		
Digital Terrain Models		
Land Feature Capture		
The following additional fees may apply:		
Archive Research Fee		
First 15 minutes		no charge
Per 15 minutes		\$23.11
Over 2 hours		negotiated price
Urgent Processing Fee (enlargements/contacts and halftones)		List price + 50%

Farm Maps

N.Z Land Information Services:

NZLIS offers a mapping service to farmers, whereby farm maps can be prepared from aerial photographs. Maps can be prepared to suit individual requirements and may include:

- Paddock area calculations only.
- Paddock area calculations, fencelines, etc. redrawn in ink, paddock numbers/names/areas noted and 50 reduced copies of the map are included.
- Same as above but the map would show the information typeset and produced using hi-tech gear. Additional information is also provided, e.g. graphic scale, extra data such as sheds, gates etc. A clear overlay foil is provided.

There is no standard pricing structure for this service. Prices on application only.

2.15.8 Travelling

Cost of travel is fully tax deductible when the purpose is farm business. This can represent a large expenditure item with some systems of management or some types of farms, e.g. stud farms.

2.15.9 Bank Fees and Stock Company Charges

(see *Section 2.17 Financial Charges*)

2.16 STANDING CHARGES

2.16.1 Insurances

Stock Insurance

Wrightson: All the prices/quotes include earthquake cover.

Livestock on farm (fire and electrocution only)	\$0.08 per \$100
Mortality and loss of use by accident, illness and disease	
Pedigree bulls:	9.5% of value for 12 months
Run bulls:	9.5% of value for 12 months
Stud rams: (including loss of use)	11.25% of value for 12 months
Deer - Stag: (including loss of use)	9.5% of value for 12 months
Deer - Hinds:	7.5% of value for 12 months

Crops

Wrightson Insurance:

Period of Insurance

Inception date as shown on policy but not until full emergence of the crop and in respect of frost, 15 November.

Expiry at heading, but not later than 30 June except Maize which is 31 August and in respect of storage, 12 months from date of harvest.

Warranted that no liability for losses occurring within 48 hours of acceptance of proposal.

The policy is subject to average conditions. Do not under insure.

Perils insured

A. Standard perils are fire and lightning

B. Extended perils are fire, lightning, frost, hail, windstorm and impact by land vehicles or aircraft.

Premiums per \$1000 Cover

Perils	Rates	Crops
A	\$7.25	All Crops
B (1)	\$24.00	Carrot, Dogstail, Lucerne, Potato (seed/main crop), Red Clovers, Sulla.
B (2)	\$29.00	Broccoli (process), Broome, Browntop, Buckwheat, Celery, Chicory, Chinese Cabbage, Cocksfoot, Echinacea, Fescue, Fodder Radish, Fodder Rape, Lentils, Linseed, Lotus, Lupin, Maize, Mustard, Oilseed Rape, (Canola) Peas, Phacelia, Phalaris, Plantain, Prairie Grass, Radish (seed), serradella, Swede, Timothy, Turnip, White Clovers, Yarrow, Yorkshire Fog.
B (3)	\$28.50	Barley, Borage, Broccoli (seed), Canary Seed, Chrysanthemum (seed), Evening Primrose, Kale, Oats, Potato (new), Ryecorn, Ryegrass, Spinach (seed), Sweetcorn (process/fresh), Triticale, Wheat.
B (4)	\$40.00	Asparagus, Beans (process/seed), Beetroot, Broad Bean (seed), Cabbage (seed), Fodder Beet, Onion (seed), Parsley (seed), Peppers, Red Beet, Sunflower (seed), Sweetcorn (seed), Swiss Chard, Tomato.
B (5)	\$50.00	Kumara

Transit and Storage are included in these rates.

P.G.G. Insurance:

Option A: Combined perils cover over cereals for fire, lightning, explosion, windstorm, hail, flood, snow, frost, wandering stock, impact, theft, transit and malicious damage.

Premium rate of \$27.50 per \$1,000 insured.

Option B: Restricted cover available for peas and small seed crops. The cover is for the same elements as in option A, excluding wind damage.

Peas - Premium rate of \$22.00 per \$1,000 insured.

Small seeds - Premium rate of \$22.00 per \$1000 insured, excluding frost.

Option C: Fire cover only for all crops.

Premium rate \$5.50 per \$1,000 insured.

For wheat growers the cover provides a 'Top Up' over the \$200 per tonne payable under the wheat scheme at a rate of \$27.50 per \$1,000 insured including windstorm damage.

Wind, hail and frost damage will not be paid unless the damage exceeds 30% of the expected yield.

Earthquake cover is available. Additional Premium rate of \$0.50 per \$1,000 insured.

The insured shall bear the following amount of all losses,

- Fire, lightning or explosion - Excess Nil.
- Hail, frost or windstorm - Excess 15%.
- Except where there have been one or more losses in the previous three growing seasons for crop loss or damage at the property caused by the same peril the excess shall be - 30%
- All other losses - Excess 15%

There is no cover under this policy for loss, or damage, directly or indirectly caused by a number of situations including:

- Subsidence, landslip, or erosion,
- Insects, vermin, wildlife, or any crop disease, blight, or spouting.
- Deterioration resulting from delayed harvest
- Earthquake, volcanic eruption.

Forestry

See Section 2.22.2

Farmers' Mutual Group:

An average farm package insurance in the Canterbury region is approximately \$1,800 to \$3,000. This includes insurance for farm vehicles, house, contents, farm buildings and public liability.

Insurances are very much individual, a farm package is tailored to suit the needs of the client and their lifestyle.

An example is given of some policies that a farmer may require depending on his/her situation. All premiums can vary with the nature of the risk and the value of items.

There are many things that can reduce premiums, such as higher voluntary excesses, burglar alarm discounts, and good risk management practises resulting in a good claims history.

An example of a Farm Package Insurance Quote: (annual premiums)

Policy	Item	Sum Insured	Excess	Premium
Dwelling	Homestead	Full Replacement	voluntary	\$252.44
Farm Building	Woolshed	Full Replacement	\$500	\$338.58
Farm Contents	Indemnity Value	\$10,000	voluntary	\$117.61
	Farming Interruption	\$10,000		
	Livestock & Goods in Transit	\$20,000		
	Baled Wool	\$5,000		\$27.08
Contents of Dwelling	Household Contents	\$50,000	voluntary	\$258.79
Motor Vehicle	Private & Farm Use	\$5,000	voluntary	\$160.93
Agricultural Vehicles	Tractor	\$50,000	voluntary	\$362.82
Farm Bikes	2 Wheel Motorbike	\$5,000	voluntary	\$71.11
Farm Trucks and Utes	Toyota Hilux	\$10,000	voluntary	\$111.16
Livestock & Dogs	Working Dog	\$1,000	Nil	\$52.31
Medical	Single parent family, including financially dependant children aged 20 or less	\$60,000 per claim	Nil	\$349.28
Personal Disability	Farmer (male) – actively engaged	\$400 Weekly Benefit	Nil	\$608.50
Public liability	Farmers Liability	\$500,000	Nil	\$88.93
	Forest & Rural Fires Act	\$50,000	Nil	
Life Insurance	Farmer (male) - 35 yrs	\$200,000	Nil	\$231.11

2.16.2 Accident Compensation Commission Levy

See *Section 4.15.8 and 4.15.9* for details of Employer and Self-Employed levy rates.

2.16.3 Rates

See *Section 2.18.8* for stock and rural domestic water supply charges.

In New Zealand rates are charged by District and Regional Councils. District Councils administer the local district plan while Regional Councils deal with region wide issues and administer the regional plan.

The main classes of rates are as follows:

- General rates set by both District and Regional Councils.
- Uniform Annual Charges set by District Councils only on all rateable property.
- Works and Services Rates set by District and Regional Councils, categories dependent on whether District or Regional Council.
- Special rates for repayment of loans for various purposes, eg water treatment works, raised by any local body.
- Water supply charges where stock water is supplied by a local body, e.g. water races, district water schemes.

- Pest Destruction (weed/plant/animal) rates set by the Regional Council where applicable.
- Flood protection and drainage rates set by the Regional Council where applicable.
- Rates can be set on capital, land value or annual value system. Water and pest destruction rates may be assessed on either per hectare, capital value or land value basis.

The examples that follow are based on a 200 hectare rural property with a rateable value of:

Improvements	\$200,000
Land Value	<u>\$500,000</u>
Capital Value	<u>\$700,000</u>

Total rates are approximate only and reflect the district wide rates not specific community rates. This excludes water supply, flood protection, drainage, region specific animal and plant rates eg Bovine TB, sewage disposal, and specific services eg libraries and reserves. Rates are reflected as a cents per dollar of Capital Value or Land Value or alternatively by the area of the property. Some District Councils charge a uniform annual charge. Rates include GST.

Council	District Council		Council	Regional Council	
	U.A.C	General Purpose Rate		General Purposes Rate	Works & Services Rate
Hauraki District	\$230	\$0.3273 (LV) (average)	Waikato	\$0.004005 (CV)	
Matamata Piako District	\$235	\$0.002673 (CV)	Waikato	\$0.004083 (CV)	
Waitomo District	\$108.65	\$0.047936	Waikato	\$0.004020 (CV)	
South Waikato District	\$206	\$0.3177 (CV)	Waikato	\$0.004182 (CV)	
Ruapehu District	\$207	\$0.3217 (LV)	Waikato		
South Taranaki District	\$262	\$0.29073 (CV)	Taranaki		
New Plymouth District	\$200	0.01069 (LV)	Taranaki		
Rangitikei District	\$100	\$0.0865 (CV)			
Horowhenua District	\$229	\$0.4048	Wellington	\$0.0673	
Kaikoura District	\$18.72	\$0.00235861 (CV)	Canterbury	\$0.049187 (CV)	\$0.013435 (CV)
Selwyn District	\$85.00	0.00151170 (CV)	Canterbury	\$0.051420 (CV)	\$0.002296 (CV)
Ashburton District	\$56.25	\$0.001058 (CV)	Canterbury	\$0.048353 (CV)	\$0.005592 (CV)

Waitaki District	\$164 avg	\$0.8629 (LV)	Otago	\$0.00027259 (CV)	\$0.00007796 (CV)
Central Otago District	\$31.60	3.296 (LV) (average)	Otago	\$0.00027476 (CV)	\$0.00006928 (CV)
Queenstown Lakes District	\$316	\$0.001112 (CV)	Otago	\$0.00029050 (CV)	\$0.00005853 (CV)

2.16.4 Rent on Leased Land

Pastoral/Arable Land

Sheep and cattle farms vary as to the type of farming enterprise able to be undertaken, and range up to \$220 per ha or \$10 to \$15 per s.u. For harder hill areas a reasonable rate would be in the vicinity of \$7 to \$10 per s.u.

Canterbury:

The rate for leasing land for stock grazing is dependent upon the production capabilities of the leased area. High producing land costs \$15 to \$17 per stock unit compared to dry East Coast land which is approximately \$10 to \$12 per stock unit. The lessee pays the rates, fertiliser and carries out routine maintenance work.

Paddock lease-

Potato Ground - in the vicinity of \$1200 per hectare per year (lessee pays extra for irrigation).

Larger areas of cultivatable land are in the range of \$450 to \$550 per hectare per year.

Southland:

Dairy milking only	\$600 to \$850 per hectare
Dairy run-off blocks	\$500 to \$700 per hectare
Dairy run-off, partly milked	\$600 to \$700 per hectare
Sheep property	\$250 to \$300 per hectare
Sheep property with dairy potential	\$300 to \$450 per hectare
Sheep and Beef ¹ .	\$250 to \$300 per hectare
Sheep/Beef/Cropping	\$300 to \$450 per hectare

¹Alternatively \$15.00 per SU for flat land and \$8.00 to \$10.00 per SU for harder land.

Waikato:

Dairy Properties – Full farms are typically leased for \$750 to \$1,250 per ha or \$300 to \$400 per acre. Additional land able to be milked on \$650 to \$1,000 per ha, normally no shares included. The average is around \$1.10/kg MS.

Drystock farms around \$550 per ha for cattle finishing land and down to \$100 per ha for hard clean hills. Sheep and cattle \$10 to \$15 per su for hills with no excessive weed problem.

Hawkes Bay:

Apple Orchard in Production	\$1,200 to \$2,500 per ha land & trees only
Process Cropping Land	\$1,000-\$1,400 per ha for crop duration, normally grass to grass
Grazing Land Hill Country	\$10 to \$16 per stock unit or \$100 to \$200 per ha

Bay of Plenty:

Dairy Properties	\$500 to \$750 per hectare
Drystock	\$150 to \$250 per hectare
Dairy run off	\$180 to \$450 per hectare
Forestry lease	\$175 to \$225 per hectare

Taranaki:

Dairy Farms (Generally without <i>Fonterra</i> shareholding)	\$800 to \$1,100 per ha (\$300 to \$400 per acre)
Cropping	\$900 to \$1250 per ha (\$400 to \$500 per acre)
Dry stock - flat - hard hill depending on the quality	\$150 to \$300 per ha (\$60 to \$120 per acre)

Crown Land

Renewed Rents on Crown Renewable Leases are 4.5% of Rental Value, as from 1971 (reduced to 4% for prompt payment). Short term lease rents usually assessed within the range of 4% to 6% of Capital Value. Rental Value is the Land Exclusive of Improvements plus Crown Improvements.

Pastoral Leases - 2.25% of Rental Value, as from 1979, (reducible to 2% for prompt payment).

Renewable Leases: 33 year terms, 11 year rent rests at 4.5% of Rental Value (reducible to 4% for prompt payment).

2.17 FINANCIAL CHARGES

2.17.1 Interest and Bank Charges

Important Note:

Interest rates, where quoted, are as at late 2001 to early 2002, unless otherwise stated. Readers are advised not to rely on these figures for budgeting purposes as market interest rates can change rapidly.

(i) Trading Banks

ASB Bank: ASB BANK Rural lending criteria apply

Term Loans

Term Table loans up to 25 years with interest only options available.

Pricing Variable rates

Fixed rates up to 10 years

An establishment fee may apply

Security Registered first mortgage over land.

Livestock security may also be required.

Usual maximum loan to 60% of Bank's valuation

Seasonal Finance:

Overdraft Incorporates seasonal and revolving credit facilities (i.e. capital requirements)

Facilities An agreed limit may be set high enough to have funds in reserve

Has ability to direct credit income

Withdrawals by cheque, EFTPOS, ATM's, Fastnet Internet Banking and Fastphone.

Security As per the term loan security

Term Facilities requirements are reviewed annually

Fees Transaction fees and service commitment fees may be charged

Application Information:

Budget and cashflow (including capital budget)

Current statement of position

Accounts and balance sheets for last 3 years (if available)

Bank of New Zealand:

The following are the specialised farm finance packages offered by the *Bank of New Zealand* which are packaged under the Farm First Brand:

Farm First Mortgage

Uses: Purchase of land, stock, or plant, refinancing of existing debt and other capital expenditure.

Amount: Minimum \$10 000, no maximum.

Pricing: Variable rates, or fixed rates up to 10 years.

Ratelock rates – allows the client to pre-book a fixed interest rate up to 12 months in advance of drawdown.

Security: Mortgage over farm property up to 70% of the market value of the farm property.

Term:	Mortgage secured - maximum 15 years while repayments can be scheduled up to 20 years.
Repayments:	Interest only option over a maximum of 3 years available. Table/Non Table. Repayments can be weekly, fortnightly, monthly or quarterly.
<i>Farm First Dairy Share Loan</i>	
Uses:	Purchase of additional Fonterra shares and/or peak notes, refinancing of existing debt, or purchase of/conversion to a dairy farm.
Amount:	Minimum \$10 000, no maximum.
Pricing:	Variable rates, or fixed rates up to 10 years. Ratelock rates – allows the client to pre-book a fixed interest rate up to 12 months in advance of drawdown.
Term:	Up to 15 years.
Repayments:	Interest only option over a maximum of 3 years available. Table/Non Table. Repayments are made monthly by Fonterra, via a deduction from the suppliers monthly milk cheque.
Security:	Mortgage over dairy shares and peak notes (up to 100% of value). Assignment over Milk Cheque.
<i>Farm First Revolving Credit</i>	
Uses:	Any farm business and seasonal expenditure requirements.
Amount:	Minimum \$20,000, maximum by arrangement (up to 50% of property valuation).
Pricing:	Variable rate.
Security:	First mortgage over farm property.
Term:	As per requirements, normally reviewed annually.
Repayments:	Account balance to remain within the agreed credit limit.
Credit	Calculated on the daily balance of the account and is paid monthly.
Interest:	
Access:	Withdrawals may be made by cheque, EFTPOS, ATM's, Internet, Telephone banking, PCBB (pc based banking) or teller transaction.
<i>Farm First Rapid Repay</i>	
Uses:	Purchase of land, stock, or plant, refining of existing debt and other capital expenditure; working capital/seasonal requirements. Combines the freedom of a cheque account with the disciplined structure of a table term loan.
Amount:	Minimum is the lesser of one third of total bank debt, or \$100 000.
Pricing:	Variable rate assigned and revised periodically by the bank.
Security:	Mortgage over farm property, up to 70% of market value.
Term:	Up to 15 years.
Repayments:	This is a term loan and transaction account rolled into one. The credit limit reduces like a table term loan, but funds are accessible at any time. All farm income can be credited tpo this account. Greater and more regular contributions contribute to paying off the loan faster and saving on interest costs.
Access:	Full acces is available including 24 hour banking cards for ATM and EFTPOS access and cheque books. Automatic and direct debits may also be loaded.

Farm First Tailored Lending Products

- Uses: Purchase of land, stock, or plant, refining of existing debt and other capital expenditure.
- Amount: Minimum \$250,000, no maximum.
- Pricing: Fixed rates up to 5 years, related to market swap rates.
Forward start rates – allows the client to pre-book a fixed interest rate up to 12 months in advance of the drawdown.
Pricing options include capped rate, flexible maturity, flexible drawdown, delayed entry, convertible fixed rate, customised average rate.
- Security: Mortgage over farm property, up to 70% of market value.
- Term: 1-5 years.
- Repayments: Interest only option available. Non Table. Repayments can be weekly, fortnightly, monthly or quarterly.

First Farm Overdrafts

- Uses: Any farm business and seasonal expenditure requirements..
- Amount: No minimum, maximum determined by debt servicing criteria.
- Pricing: Variable rate.
- Security: Mortgage over farm property, stock.
- Repayments: At any time. Account balance to remain within the agreed credit limit.
- Access: Withdrawals may be made by cheque, EFTPOS, ATM's, Internet, Telephone banking, PCBB (pc based banking) or teller transaction.

Bank Charges and Fees

- Fees: Establishment and investigation fees up to 1% of the loan value may be charged.
Overdraft and Revolving Credit accounts – Base Account, Service Commitment and transaction fees may apply.
Term loans – additional fees may apply when booking an interest rate for drawdown on a future date.
- Pricing: Current Interest Rates are available from any Agribusiness Manager.

Financial Data Required

Minimum requirements generally are: Past three years balance sheet and accounts; cash flow forecast and status quo budget; personal statement of assets and liabilities.
Other considerations: Knowledge/experience in farming; character and capacity; past borrowing record; repayment capacity (debt servicing normally not exceeding 25% of gross farm income).

The National Bank of New Zealand Limited:

Term Lending

- Uses: To purchase land, stock, plant, machinery and other capital expenditure, or to refinance existing debt.
- Security: A registered First Charge Mortgage. Livestock security may also be required.
- Loan Type: The Bank provides the following term lending options:
- Floating Rate Loan
- Fixed Rate Loans* 6 months, 1-5 year fixed terms
forward fixed rates for future draw down available
-

	<ul style="list-style-type: none"> - Bill Rate Loan 30,60,90, 120 and 180* day bill rate terms a margin is applied to the bill rate and is transparent to the customer
	*Early repayment Recovery applies to fixed rate loans and 180 day bill prices loans
Repayment:	<p>The following repayment options are available:</p> <ul style="list-style-type: none"> - Table: Repayments of interest and principal in equal monthly instalments (maximum term 25 years) - Straightline: Monthly repayments of a set principal amount plus the full monthly interest cost (maximum term 25 years) - Interest Only: Payments of interest (maximum term 5 years)
Interest Rate:	<p>Floating rate</p> <p>Fixed interest rate - 6 months, 1,2,3,4 and 5 year terms</p> <p>Forward fixed interest rates for future drawdown available.</p>
	<i>Currency Risk Management Solutions</i>
Uses:	<p>Currency Risk Management products to manage the exchange rate risk farmers are exposed to.</p> <ul style="list-style-type: none"> - Currency Cover – a forward exchange contract specifically for rural customers. Currency Cover effectively hedges farmers’ income against movements in the exchange rate. - Currency Option – an option may be likened to insurance, where the holder pays an up front premium and receives insurance in the form of a guaranteed exchange rate.
	<i>Seasonal Finance – FreePlan</i>
Uses:	A working account designed to bring together all farm finance requirements - term, seasonal and savings (or any combination) into one account.
Credit Interest:	Credit balances earn competitive interest, paid monthly.
Account Fees:	<p>The following account fees apply to FreePlan Accounts:</p> <ul style="list-style-type: none"> - Fixed monthly fee of \$12.50, which covers all standard transactions - An overdraft management fee of 0.083% per month (1% pa) may apply to seasonal accounts
Account Access:	<p>Access to accounts is easy with many alternatives including:</p> <ul style="list-style-type: none"> - Cashpoint card - for use in ATM and EFT-POS facilities - Chequebook - Rural Freephone – dedicated, operated assisted freephone for day to day banking requirements. A telephone banking (touchtone) option is also available. - Freepost - for depositing cheques - Internet On-line Banking - DirectLink – PC Banking compatible with many farm accounting software applications
Payments:	Electronic payment services such as automatic payments, direct debits, direct credits and bill payments
Information:	<p>The following information is required to support applications:</p> <ul style="list-style-type: none"> - Budget and cashflow forecasts - Financial statements for the previous years

Rabobank New Zealand Limited:

Term Loans

- Uses: Available for land purchase, stock purchase, financing existing debt, diversification, plant and machinery purchase and off-farm investment.
- Term: Available for terms of 1 year to 15 years. Interest-only, principal and interest and table mortgage options available
- Interest Rates: Variable rate as well as 90 day, 180 day 1, 2, 3, 4 and 5 years (other rates by negotiation). Forward booking of interest rates available
Flexible repayment terms to meet particular needs
- Security: Land, livestock or plant.

Seasonal Finance

- Uses: To fund ongoing expenditure throughout the year
- Term: Generally for 12 month, thereafter reviewed and renewed
- Interest Rates: Competitive interest rates calculated on daily drawn balance
No transaction or overdraft fees
- Security: Instrument over livestock, plant or a mortgage over land

Client Cashflow Management System

Finance management system that integrates transactions through farm accounts and provides comprehensive monthly overviews.

Rabo Equipment Finance

Provides flexible and competitive methods of financing essential farm plant and equipment. Is available for a broad range of equipment used in agriculture related enterprises. Offers payment structures designed to accommodate the seasonality of farm incomes.

Deposit: Rabobank offers a range of short and long-term deposit options. Call deposits and term deposits from 90 days to 3 years are available.

A.N.Z. Bank:

Farm Finance Loans

- Description: To purchase land, stock or plant, capital expenditure and to refinance existing debt
- Terms: Terms of up to 15 years are available, sometimes more, consisting of fixed and/or variable interest rate options. Interest-only terms are also available.
“Forward Start” allows the client to pre-book a fixed interest rate up to 12 months in advance
- Fixed Interest: ANZ Fixed Rate Farm Loans allow the client to lock in an interest rate.
- Variable Interest: ANZ Redraw lets clients apply surplus funds to an ANZ Variable Rate Farm Loan, repaying the principle ahead of schedule when cash flow allows to minimise interest rate cost. Should clients need to reborrow these funds later, ANZ Redraw lets them do so easily.
- Repayments: Can be varied to suit individual requirements, eg. fortnightly, monthly, quarterly or yearly
- Pricing: Each client is priced individually to reflect their unique situation
- Security: Registered first mortgage over land. Livestock security may also be required.
-

Farm Equity Credit Line

Description	A working capital account that has no fixed repayment arrangements. Drawings are allowed up to an approved limit in line with the farm's cash flow position.
Control	Night and Day Card for cash and EFT POS facilities Cheque books ANZ Phone-Direct access to the client's account to transfer funds, pay bills and make other account inquiries, 24 hours a day ANZ Direct. A computer based banking package for managing daily financial requirements on a personal computer
Security	Registered first mortgage over land. Livestock security may also be required

General Information:

Electronic payment facilities such as direct debit, automatic payments and direct credits are available. Establishment fees of up to 1% of the value of the loan to a maximum of \$1,000 may be charged. A monthly management fee may also be payable. A range of personal accounts, credit cards and term deposits are available if required. ANZ lending criteria and charges will apply.

WestpacTrust:

All loans are subject to meeting *WestpacTrust's* credit criteria.

WestpacTrust can provide:

Overdrafts for farm seasonal requirements.

- Amount by negotiation;
- Term subject to annual review, on presentation of annual cashflow budget and financial accounts;
- Interest charged monthly and based on *WestpacTrust's* Farm Lending Rate plus a margin based on the individual credit assessment of the borrower.
- Line of Credit charge may apply at 0.1% per month, calculated on the overdraft facility limit. An establishment charge of up to 1.0% may apply.
- Facility can be accessed by cheque book, or a range of telephone, card access, and computer banking options to suit.

Term Loans for farm purchase, stock or other capital expenditure.

- Amount by negotiation.
- Terms: Up to 15 years against farm mortgage security, with up to 3 years interest only; or 5 years against livestock security, with up to 6 months interest only.
- Repayments of principal normally arranged on a monthly basis. Depending on the farm's cashflow patterns, flexibility can be applied, with combined monthly Principal and Interest (P and I) repayments, or principal repayments based on quarterly, half yearly or annual cycles in lieu of monthly, or "ballooned" repayments during the term of the loan.
- Interest is charged monthly to the farm working account (unless P and I repayments are arranged) and based on *WestpacTrust's* Farm Lending Rate plus a margin based on the individual credit assessment of the borrower. Fixed

interest rate terms available up to 5 years and rates may be fixed forward by up to 12 months ahead of drawdown.

- An establishment charge of up to 1.0% may apply.

Security

WestpacTrust will normally require a registered first mortgage over the farm property and will lend up to 60% of the farm's valuation (registered or as assessed by *WestpacTrust*).

Where the loan to security ratio is over 50%, *WestpacTrust* will also seek a registered charge over livestock or crop lien to support the loan.

Where lending is against livestock security, *WestpacTrust* will lend up to 60% of the market value (as assessed by *WestpacTrust*) of dairy livestock and 50% of market value of other classes of livestock.

(ii) Finance Companies

AGC Finance:

AGC Finance specialises in asset and lease finance and offers the following products.

All applications are subject to credit and lending criteria.

Asset Purchase

Description:	Method of acquiring plant and equipment without tying up large amounts of capital.
Amount:	Minimum loan amount \$15,000
Deposit:	Varies depending on type of equipment being financed. Normally a deposit of between 25% to 33% is required.
Terms:	Between 12 to 60 months.
Repayments:	Payments are fixed. The payment structure can be tailored to meet your cash flow requirements.
Interest rates:	Fixed for the term of the loan.
Fees:	An establishment fee of 0.5% will apply. Minimum fee is \$300.
Security:	The asset being financed.

Financial Lease.

Description:	Available for a range of assets including cars, tractors, trucks and truck trailers, light commercials and most mobile commercial equipment.
Amount:	Minimum loan amount \$15,000
Deposit:	Varies depending on type of equipment being financed. Normally a deposit of between 25% to 33% is required.
Terms:	Minimum term must exceed 75% of the assets economic life (as determined by IRD guidelines.)
Repayments:	Payments are fixed. The payment structure can be tailored to meet your cash flow requirements.
Fees:	An establishment fee of 0.5% will apply. Minimum fee is \$300.
Security:	The leased asset.

Operating Lease:

Description:	Available for a range of assets including cars, tractors, trucks and truck trailers, light commercials and most mobile commercial equipment.
Amount:	Minimum loan amount \$15,000
Deposit:	One rental payment in advance.

Terms:	Minimum term must exceed 75% of the assets economic life (as determined by IRD guidelines.)
Repayments:	Monthly lease payments are fixed with no lump outlay. At the end of the term there are no payments and you have three options: <ol style="list-style-type: none"> 1. Return asset with no residual obligation. 2. Upgrade to new asset under a new Operating Lease. 3. Continue to lease the asset on a month by month basis.
Fees:	An establishment fee of 0.5% will apply. Minimum fee is \$300.
Security:	The leased asset.
<i>Insurance Premium Funding:</i>	
Description:	A method of short term lending that allows you to spread the cost of your business insurance premiums, including ACC, to suit your cash flow.
Amount:	Available to businesses with an annual premiums of \$5,000 or more.
Deposit:	Not required.
Terms:	Up to 12 months.
Interest rates:	Fixed for the term of the loan.
Fees:	Minimum fee is \$300.
Security:	Generally no other security is required other than the insurance policy.

(iii) Stock and Station Agencies

The finance departments of most Stock and Station Agencies have both seasonal and term lending facilities available. Loan facilities are offered to all new and existing farmers.

Pyne Gould Guinness Ltd:

Seasonal Finance:

Provided on a seasonal basis with annual review and secured against livestock, plant, crops or land. Part of the initial costs of purchase of livestock and plant may be approved in individual cases.

Livestock loans:

Funds are available for the purchase and finishing of livestock in approved cases. Acceptable security is required and will include the stock being purchased.

Term Loans:

Term finance at competitive rates and flexible terms for all farm capital requirements.

Available for land purchase; significant farm development, plant and machinery purchases; refinance of existing or family debt; agricultural diversification.

Offering competitive rates; terms of 3 to 5 years with review and rollover; interest only (flat) or reducing loans available; flexible terms.

Interest and Fees:

Calculated on the daily balance with credit interest paid. No application or annual fees. Cheque fees apply.

(iv) Trust Companies

Guardian Trust offers both floating and fixed interest rate mortgages secured by farm land and buildings. Terms are available up to 20 years, and interest only loans for a maximum of five years are available. The maximum loan size is \$5.5m and the minimum \$100,000. The maximum loan ratio to the property value is 50%. When interest rates are fixed, borrowers may repay 25% of the debt annually without penalty.

Current farm rates are as follows:	Floating	7.00%
	Fixed One Year	6.60%
	Fixed Three Years	7.60%

Perpetual Trust Ltd.:

Rural Lending Criteria

Loan Types:	Flat mortgage, reducing mortgage and table equivalent types available
Interest Options:	Fixed interest, floating interest and a combination of both available.
Term:	Normal term is three years. At the end of the term borrowers will be given the option of renewing the mortgage for a further term subject to security and debt servicing remaining within Perpetual Trust's criteria at the time.
Amount of Loan:	No minimum amount. Maximum advance \$6m.
Security:	Registered first Mortgage over the freehold title of land and buildings.
Loan/Value Ratio:	Maximum of 66% of the property's value. The "value of the property" will be determined by Perpetual Trust Limited. In most instances the lower of the "sale price" or "registered valuation" will be used in assessing this ratio where a property purchase is involved.
Application fee:	Depends on the complexity of the application but will typically be around 0.25% of the principal borrowed.

(v) Other Institutions

Under certain circumstances several other institutions will lend money for land, stock and plant purchase, development or other agricultural and related projects. These include Building Societies, Life Insurance Companies and solicitors. Interest rates and terms are usually negotiated for individual situations.

2.17.2 Cost of Table Mortgages - Monthly/Quarterly/Annual Payments

(i) Monthly Payments

(Monthly Payments on Amortised Loans).

The monthly payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Years (Mortgage Term)

	5	10	15	20	25
Interest Rate	\$ p.m.	\$ p.m.	\$ p.m.	\$ p.m.	\$ p.m.
6%	19.33	11.10	8.44	7.16	6.44
6.5%	19.57	11.35	8.71	7.46	6.75
7%	19.80	11.61	8.99	7.75	7.07
7.5%	20.04	11.87	9.27	8.06	7.39
8%	20.28	12.13	9.56	8.36	7.72
8.5%	20.52	12.40	9.85	8.68	8.05
9%	20.76	12.67	10.14	9.00	8.39
9.5%	21.00	12.94	10.44	9.32	8.74
10%	21.25	13.22	10.75	9.65	9.09
10.5%	21.49	13.49	11.05	9.98	9.44
11%	21.75	13.77	11.37	10.32	9.80
11.5%	22.00	14.06	11.68	10.66	10.16
12%	22.24	14.35	12.00	11.01	10.53
12.5%	22.50	14.64	12.33	11.36	10.90
13%	22.75	14.93	12.65	11.72	11.28
13.5%	23.01	15.23	12.98	12.07	11.66
14%	23.27	15.53	13.32	12.44	12.04
14.5%	23.53	15.83	13.66	12.80	12.42
15%	23.79	16.13	14.00	13.17	12.81
15.5%	24.05	16.44	14.34	13.54	13.20
16%	24.32	16.75	14.69	13.91	13.59
16.5%	24.58	17.06	15.04	14.28	13.98
17%	24.85	17.38	15.39	14.67	14.38
17.5%	25.12	17.70	15.75	15.05	14.78
18%	25.39	18.02	16.10	15.43	15.17
18.5%	25.67	18.34	16.47	15.82	15.57
19%	25.94	18.67	16.83	16.21	15.98

(ii) Quarterly Payments

(Quarterly Payments on Amortised Loans).

The quarterly payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Years (mortgage Term)

	5	10	15	20	25
Interest Rate	\$ p.q.	\$ p.q.	\$ p.q.	\$ p.q.	\$ p.q.
6%	58.25	33.43	25.40	21.55	19.38
6.5%	58.97	34.20	26.22	22.43	20.30
7%	59.70	34.98	27.06	23.33	21.25
7.5%	60.43	35.76	27.91	24.24	22.22
8%	61.16	36.56	28.77	25.17	23.21
8.5%	61.90	37.37	29.65	26.11	24.21
9%	62.65	38.18	30.54	27.07	25.23
9.5%	63.40	39.01	31.44	28.04	26.27
10%	64.15	39.84	32.36	29.03	27.32
10.5%	64.91	40.68	33.28	30.03	28.38
11%	65.68	41.54	34.23	31.05	29.46
11.5%	66.45	42.40	35.18	32.08	30.55
12%	67.22	43.27	36.14	33.12	31.65
12.5%	68.00	44.15	37.11	34.17	32.76
13%	68.78	45.03	38.09	35.23	33.89
13.5%	69.57	45.93	39.09	36.31	35.02
14%	70.37	46.83	40.09	37.39	36.16
14.5%	71.16	47.74	41.11	38.48	37.32
15%	71.97	48.66	42.13	39.59	38.47
15.5%	72.77	49.59	43.16	40.70	39.64
16%	73.59	50.53	44.21	41.82	40.81
16.5%	74.40	51.47	45.26	42.95	41.99
17%	75.22	52.42	46.32	44.08	43.18
17.5%	76.05	53.38	47.38	45.23	44.37
18%	76.88	54.35	48.46	46.38	45.56
18.5	77.72	55.32	49.54	47.53	46.76
19%	78.56	56.30	50.63	48.69	47.97

(iii) Annual Payments

(Annual Payments on Amortised Loans).

The annual payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Years (Mortgage Term)

	5	10	15	20	25
Interest Rate	\$ p.a.	\$ p.a.	\$ p.a.	\$ p.a.	\$ p.a.
6%	237.40	135.87	102.96	87.18	78.23
6.5%	240.64	139.11	106.36	90.76	81.99
7%	243.89	142.38	109.79	94.39	85.81
7.5%	247.17	145.69	113.29	98.10	89.72
8%	250.46	149.03	116.83	101.85	93.68
8.5%	253.77	152.41	120.43	105.68	97.72
9%	257.09	155.82	124.06	109.55	101.81
9.5%	260.44	159.27	127.75	113.48	105.96
10%	263.80	162.75	131.47	117.46	110.17
10.5%	267.18	166.26	135.25	121.49	114.43
11%	270.57	169.80	139.07	125.58	118.74
11.5%	273.98	173.38	142.92	129.70	123.10
12%	277.41	176.98	146.82	133.88	127.50
12.5%	280.85	180.62	150.76	138.10	131.94
13%	284.31	184.29	154.74	142.35	136.43
13.5%	287.79	187.99	157.76	146.65	140.95
14%	291.28	191.71	162.81	150.99	145.50
14.5%	294.79	195.47	166.90	155.36	150.08
15%	298.32	199.25	171.02	159.76	154.70
15.5%	301.85	203.06	175.17	164.20	159.34
16%	305.41	206.90	179.36	168.67	164.01
16.5%	308.98	210.77	183.57	173.16	168.71
17%	312.56	214.66	187.82	177.69	173.42
17.5%	316.16	218.57	192.10	182.24	178.16
18%	319.78	222.51	196.40	186.82	182.92
18.5%	323.41	226.48	200.73	191.42	187.69
19%	327.05	230.47	205.09	196.05	192.49

2.18 WATER SUPPLY, IRRIGATION AND DRAINAGE

Many manufacturers continue to express capacity in gallons and pump pressure in gallons per hour (gph). The conversion figure to obtain the metric rate is: 1 gallon = 4.546 litres.

2.18.1 Water Supply System Costs

The complete cost of a new stock water supply system for a farm depends on an extremely large number of variables. For example, recent figures suggest a cost of around \$20,000 to \$25,000 for the development of a new water supply on an 120 hectare farm being converted from sheep to dairy farming. Refer to Section 2.18.9 for supply charges.

2.18.2 Water Troughs

Concrete

Hynds Pipe Systems Ltd:

Oblong Trough - with internal fittings and cover.	
60 type (250 litres) 1.83m long x 685mm wide x 310mm deep	\$195.00
Round Troughs - cattle and sheep- with internal fittings and cover	
130 type (585 litres) 1.480m diameter x 434mm deep	\$234.00
200 type (900 litres) 1.93m diameter x 380mm deep	\$238.00
Round Troughs - dairy cattle types - with internal fittings and cover	
225 type (1020 litres) 1.63m diameter x 650mm deep	\$334.00
300 type (1360 litres) 2.02m diameter x 620mm deep	\$343.00
Calf Troughs	
585mm x 380mm x 230mm deep	\$52.00
Deer Troughs Round - with covers	
20 type (90 litres) 815mm diameter x 370mm high	\$124.00
40 type (180 litres) 1.12m diameter x 380mm high	\$142.00
Pig Troughs	
915mm long x 405mm wide x 230mm deep	\$88.00
1.37m long x 405mm wide x 230mm deep	\$92.00
1.83m long x 405mm wide x 230mm deep	\$102.00
Cover for the above	\$42.00
Dog Bowls - 300mm diameter x 150mm deep	\$16.00

<i>Humes:</i>	<u>Weight</u>	<u>Price</u>
Rectangular troughs: (includes cover)		
RB 200/300/400	280kg/366kg/525kg	\$137.28/\$145.60/\$187.20
RB Ballcock Cover Only		\$32.17
Round troughs: (includes cover)		
CB 100/150/500	235kg/278kg/470kg	\$109.20/\$135.20/\$171.60
CB 750/1000	680kg/854kg	\$213.20/\$260.00
CB 1500/2500	1034kg/1474kg	\$312.00/\$416.00
CB Ballcock Cover Only		\$22.87
Fittings Required:		
Trough Valve	15mm/20mm/25mm	\$15.95

M&F Elbow (top) CB series	20mm/25mm	\$2.51/\$3.05
HMB Male Elbow (bottom)	20mm/25mm	\$10.21/\$13.23
HRMB 20/25 Reducing Male Elbow		\$12.97
Ball Float	110mm/150mm	\$3.26/\$3.75

Troughs 1000 litres and larger are fitted with 25mm fittings as standard.

Cement Products:

Oblong Troughs					
Litres	Length (m)	Width (mm)	Height (mm)	Weight (kg)	Price
270	2.000	660	380	340	\$134.80

Circular Troughs					
Litres	Diameter (mm)	Height (mm)	Weight (kg)	Price	
225	1,150	310	240	\$105.70	
450	1,350	430	375	\$145.60	
780	1,600	460	650	\$183.30	
1,125	1,970	510	1,040	\$248.10	

All *Cement Products* troughs are fully reinforced and are fitted with 20mm brass inlets except 1,125 litre, which has a 25mm inlet.

2.18.3 Tanks

Plastic - Devan Plastics:

Litres	Gallons	Height(m)	Width(m)	Price (coloured)	Price (black)
25000 ¹	5500	3	3.5	\$2,217	\$2,000
13650 ²	3000	2	3.5	\$1,862	\$1,600
4550 ³	1000	2	1.9	\$1,862	\$977

¹ Includes North and South Island delivery, ² Includes North Island delivery only.

³ Ex Tauranga and Christchurch depots

Humes: Skellerup Rototanks

Size	Black	Coloured
500 litre	\$222.45	\$257.76
750 litre	\$268.36	\$304.84
1,000 litre	\$337.80	\$382.53
2,000 litre	\$535.54	\$606.16
3,000 litre	\$700.32	\$812.13
5,000 litre	\$1,046.35	\$1,235.85
7,500 litre	\$1,505.38	\$1,769.03
10,000 litre	\$1,696.00	\$1,811.56
25,000 litre	\$1,822.23	\$1,911.12
30,000 litre	\$2,000.00	\$2,133.34

Chemical grade tank prices available on request.

Concrete

Cement Products Ltd: (Palmerston North)

Litres	(gallons)	Diameter(m)	Height(m)	Price
13,600	(3000)	2.74	2.44	\$1,577.20
25,000	(5000)	3.42	2.28/2.74	\$2,050.00

Freight costs are additional to the tank prices and are charged at \$4.50 per kilometre for all tank sizes.

Hynds Pipe Systems Ltd:

Volume (litres)	Height	Price
1,830	1.37m	\$675
4,550	1.90m	\$1,050
11,365	2.40m	\$1,550
15,910	1.80m	\$2,250
23,660	2.72m	\$2,380

Timber Tanks and Reservoirs

Timbertank Enterprises:

Capacity (litres)	Diameter	Height	Price
19,447 / 34,550	3.50/4.80	2.00	\$3,775/\$5,500
47,280 / 69,670/96,130	4.80/6.00/6.90	2.70	\$7,060/\$8,875/\$11,590

All prices include liner and construction. Individual quotes are given to take into account location, non-standard pipework, liner and site preparation if required.

Timbertank Enterprises:

Kitsets:

Capacity (litres)	Diameter	Height	Price
19,447	3.50	2.00	\$3,390
11,200	2.80	2.00	\$2,855
8,640	2.40	2.00	\$2,550
4,830	2.00	1.80	\$1,800
2,800	1.80	1.20	\$1,340

Kitset prices are ex-factory, and include standard pipe work and liners.

Reservoirs

95 cubic metre to 3000 cubic metre reservoirs are quoted individually and reservoir linings are custom-made for all tanks and reservoirs - wooden, concrete, or steel. They are used to prolong the life of an existing tank and prices available on application.

Galvanised Iron Tanks

C & F Industries:

1,700 litres (400 gal)	\$602
2,700 litres (600 gal)	\$770
3,600 litres (800 gal)	\$917
1,200 high tank stands	\$586

2.18.4 Pumps and Windmills

(i) Pumps

Bertolini (Diaphragm Pumps)

Medium to high Pressure models	Maximum continuous working pressure	litres per minute	Price
PA 330	40 Bar (600 psi)	30	\$751 to \$1,142
PA 430	40 Bar (600 psi)	40	\$824 to \$1,213
PA 530	40 Bar (600 psi)	55	\$998 to \$1,502
PA 730	40 Bar (600 psi)	70	\$1,150 to \$1,712
PA 908	50 Bar (750 psi)	90	\$1,628
PA 144	50 Bar (750 psi)	145	\$2,599
Low Pressure	15 Bar (220 psi)	70 to 250	\$867 to \$2,906
Motorised models (electrical)	20 Bar (300 psi)	20	\$1,259
(electrical)	40 Bar (600 psi)	30	\$2,048
4 Stroke	20 Bar (300 psi)	25	\$1,732 to \$1,867
	40 Bar (600 psi)	40/70	\$2,491/\$3,838
Ceramic Plunger			
C146P	70 Bar (1000 psi)	145	\$3,675
C220P	50 Bar (700 psi)	220	\$4,389

Onga (NZ) Ltd - Davies and Onga Pumps:

Prices for various pressure systems vary according to tank size.

Farm Pressure Systems. Shallow well jet pumps.

JJ400	750 watt	20 to 40 psi	AP 50 tank	\$1,044
JJ600	1100 watt	20 to 50 psi	AP 50 tank	\$1,254
OJ700	1500 watt	20 to 70 psi	AP 80 tank	\$1,945
OJ800	2400 watt	30 to 75 psi	SR 60 tank	\$3,260

Deep Well – add the following to the above pumps:

4/5/6" deep well injectors	\$305/\$340/\$415
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General Purpose Water Transfer

Hi Flow Self Priming Moulded Centrifugal Pumps

Models	415	750 watt	31psi	240v	\$410
	112	1100 watt	37psi	240/415v	\$698/\$725
	143	2400 watt	60psi	240/415v	\$1,145/\$990

Farm Water Supply (see also shallow and deep well jet pumps above)

Model	Davies B1 Piston Pump std – less motor	300 gallons per hour	\$1,250
	Davies C1 Piston Pump std – less motor	500 gallons per hour	\$2,560

Hydroponics

Moulded Centrifugal Pumps

Model	413	400 watt	21 psi	240v	\$295
	PPP550	550 watt	21 psi	240v	\$620
	PPP750	750 watt	25 psi	240v	\$645

Irrigation

Cast Iron Centrifugal Pumps (Bare Shaft)

Model	DB 50/26 (15000gph @ 130 psi-2900rpm)	\$1,230
	DB 65/26 (24000gph @ 130 psi-2900rpm)	\$1,505
	DB 100/26 (60000gph @130 psi-2900rpm)	\$1,775

Cast Iron Centrifugal Pumps (Motorized Electric)

Model	DBC 40/20 11 kW (6000gph @ 80 psi)	\$3,270
	DBC 50/20 15 kW (13000gph @ 80 psi)	\$3,660
	DBC 65/20 22 kW (24000gph @ 70 psi)	\$5,030

Engine Driven Water Transfer/Irrigation (self-priming)

(performance at 3000 rpm continuous duty)

Model		hp	Flow	Price
350 non – electric start	Honda GX 160	5.5	200 litres/min @ 35m head 100 litres/min @ 43 m head	\$1,370
350 non – electric start	Briggs & Stratton	6.5	200 litres/min @ 35 m head 100 litres/min @ 43 m head	\$1,280
370 non – electric start	Yanmar diesel	4.5	200 litres/min @ 35m head 100 litres/min @ 43 m head	\$3,900

McNeill Pumping & Irrigation: (Grundfos Pumps)

High Pressure Multi Stage

	kW	Pressure	Flow, litres/minute	Price
CR3-15	1.1	70 metre (100psi)	52	\$1,932
CR8-60	2.2	60 metre (85psi)	180	\$2,854
CR16-90	5.5	75 metre (110psi)	220	\$3,738

Farm Pressure Systems

JP6 PT75	0.92	55 metre (80psi)	50	\$1,309
CR3-10 PT75	0.75	45 metre (65psi)	50	\$2,993
CR6-60 PT75	2.2	60 metre (85psi)	180	\$4,382

General Purpose Transfer Pump

MQ3-35	0.58	25 metre (35psi)	40	\$608
MQ3-45	0.67	32 metre (45psi)	40	\$685
CH2-40L	0.39	36 metre (50psi)	18	\$491
CH4-40L	1.05	30 metre (40psi)	36	\$555
CH8-60L	1.41	45 metre (65psi)	65	\$1,411

Domestic Pumps

JPF2 PC	0.44	30 metre (40psi)	17	\$485
JPF4 PT18	0.75	35 metre (50psi)	42	\$572

Submersible Pumps

SQ2-70	0.80	65 metre (90psi)	34	\$1,336
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SQ7-55	1.60	58 metre (82psi)	120	\$2,108
SP8A-18	3.00	75 metre (105psi)	135	\$3,566
SP14A-18	5.50	85 metre (120psi)	230	\$5,047
SP30-13	11.00	110 metre (160psi)	420	\$6,799

Drainage Waste Pumps

KPC300	0.22	4 metre (10psi)	82	\$276
KP250 A1	0.48	6 metre (7psi)	64	\$453
AP12-40-06-A1	0.60	8.5 metre (14psi)	165	\$689
AP50-50-11-A1 Vortex	1.10	9 metre (20psi)	165	\$1,662

Pressure Tanks

Tank	Capacity (litres)	Maximum working pressure	Price
PT18	18	550	\$276
PT75	75	550 Free Standing	\$453
PT121	121	690 Free Standing	\$689
PT450	450	860 Free Standing	\$1,662

Hydra-Cell Pumps Ltd.:

Hydra-Cell F20 Brass Head	up to 4 litre per min up to 1000 psi	\$980
Hydra-Cell D03 Brass Head	up to 9 litre per min up to 1200 psi	\$2,200
Hydra-Cell D10 Cast Iron Head	up to 30 litre per min up to 1000 psi	\$2,950
Hydra-Cell G10 Cast Iron Head	up to 30 litre per min up to 1200 psi	\$2,950
Hydra-Cell H25 Cast Iron Head	up to 76 litre per min up to 1000 psi	\$6,250
Hydra-Cell D35 Cast Iron Head	up to 140 litre per min up to 1200 psi	\$10,950

Rampumps

Oxyman Ltd:

Rampump Models 1.5/2.5	\$2,650/\$4,650
Rampump Models 4/6	\$5,650/\$8,650
Surgetank Models 1.5/2.5	\$210/\$385
Surgetank Models 4/6	\$605/\$860
Drivepipe Filter Models 1.5/2.5	\$39/\$72
Drivepipe Filter Models 4/6	\$94/\$127
Stream Filters for all four models	\$25 to \$85

(ii) Windmills

Ferguson Windmills Company: Freight free to nearest national carrier depot.

1.8m (6ft) complete windmill (includes fan, std mast, pump, accessories)	\$1746.67
Extension mast and accessories	\$395.56

2.18.5 Effluent Pumps, Sumps and Irrigators.

Tulloch:

Reime SP10 manure separator	\$24,590
Reime L-04-100 submersible manure pump	\$11,510

*NuMedic:***Sump Pumps**

Motor Size	Motor and pump price
5.5 kW 1400 rpm/2800 rpm	\$3,058/\$3,039
7.5 /11 kW 2800 rpm	\$3,142/\$3,995
15 /18.5 kW 2800 rpm	\$4,272/\$4,513

Pump price includes motor cover, mounting bracket, lifting bracket, 50mm non return valve and galvanised pipe fittings etc. Chopper pump in the above sizes add \$397.

Floating Pumps with parallel arms

Motor Size	Complete System
	3.2m arms 6.4m arms
5.5 kW 1400 rpm/2800 rpm	\$4,713/\$4,694 \$4,808/\$4,789
7.5/11 kW 2800 rpm	\$4,797/\$5,447 \$4,892/\$5,542
15 / 18.5 kW 2800 rpm	\$5,754 \$5,965 \$5,873/\$6,061

Complete system includes the pump and motor, polyurethane foam filled float, motor cover, lifting bracket, parallel arms, onshore pipe and bracket, hose, tailpieces, 65mm non return valve, flexible couplings, hose clamps and fittings etc. Chopper pump in the above sizes add \$397.

Floating Pumps with slide and rails

Motor Size	Complete System
5.5 kW 1400 rpm/2800 rpm	\$5,056/\$5,037
7.5 / 11 kW 2800 rpm	\$5,140/\$5,790
15 / 18.5 kW 2800 rpm	\$6,121/\$6,309

Complete system includes the pump and motor, polyurethane foam filled float, motor cover, lifting bracket, slide assembly rails, 50mm non return valve, hose and fittings etc. Chopper pump in the above sizes add \$397.

Ecostream Irrigation:

PTO Effluent Pump c/w suction hose, suction screen fitted with bypass connection, primer, primer reservoir, dual 80 mm discharge hose, PTO shaft, pressure and vacuum gauges fully assembled.	\$5,995
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Effluent Screen*NuMedic:*

Inline Effluent Screen	\$895
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*Ecostream Irrigation: Dairy Shed Effluent Disposal Equipment***Effluent Sumps**

Ecostream self cleaning effluent sump 2900 litre (average herd size) includes sump, mesh cover, pump mounting brackets and debris basket	\$1,595 - \$2,495
Ecostream self cleaning effluent maxi sump 9800 litre (large herd size) includes sump, pump float assembly, discharge pipework, electric pump Controller, sump pump switching system and debris basket.	\$6,000 - \$8,500
Ecostream sump pump switch (replaces probes and switches)	\$395 to \$795

Effluent Hydrants (fit 65 and 80 mm PVC and 75 and 90 mm MDPE Rubber Ring Joint or BSPT fittings)

Ecostream No Block effluent hydrant 1 way (used at end of pipeline)	\$125 to \$145
Ecostream No Block effluent hydrant 2 way (connection within a pipeline)	\$260 to \$300
Ecostream No Block effluent hydrant 3 way - straight (tee in a pipeline)	\$260 to \$420
Ecostream No Block effluent hydrant 3 way - triangular (tee in a pipeline)	\$360 to \$420
Ecostream No Block effluent hydrant 4 way (used at a cross in a pipeline)	\$460 to \$540
Ecostream hydrant adaptor complete with camlocks	\$100

Effluent Irrigators

Ecostream Irrigation:

Ecostream Low Pressure, Continuous Drive, Effluent Travelling Irrigator 200 or 300 metres. Many optional extras available.	\$3,795-\$4,495
Ecostream Effluent Stationary Irrigator (steep contours & smaller herds)	\$995
Drag Hose Section 50 mm dia x 50 metre long complete with camlock couplings and hose clamps (typical effluent system uses 3 sections)	\$265

2.18.6 Well Drilling

McMillan Water Wells Ltd:

Price for drilling wells	Price per metre
4 inch (100mm) / 5 inch (125mm)	\$150/\$170
6 inch (150mm) / 8 inch (200mm)	\$190/\$264
10 inch (250mm) / 12 inch (300mm)	\$336/\$393.70

Developing charged at \$120 per hour. Compressing and test pumping for 150mm and 200mm charged at \$120 per hour. Compressing and test pumping for 250mm and 300mm charged at \$145 per hour. Install telescoped casing for 250mm or 300mm well if applicable, charged at \$120 per hour. All prices include drilling and steel pipe. Stainless steel screens are normally fitted, and range in price from \$396 per metre for 100 mm to \$871 per metre for 300 mm. However, prices will vary depending on location and depth.

2.18.7 Well Liners

Cement Products:

	Size	Weight (kg)	Price
Plain and porous	900 mm x 1,000 mm	600	\$112.65
Lids	1,050 diameter	95	\$72.73
Offal lids	1,350 diameter	190	\$65.00
Distribution boxes		86	\$94.36

2.18.8 Pipes and Fittings

Hansen Products (N.Z) Ltd: Polythene Pipe Fittings:

Coupling (HS)	15mm to 50mm	\$4.38 to \$23.96
Reducing couplings (HRS)	20x15mm to 50x40mm	\$5.69 to \$23.96
Long repair coupling (HLS)	15mm to 25mm	\$5.54 to \$8.64
Female couplings (HFS)	15mm to 50mm	\$4.91 to \$17.79
Reducing female couplings (HRFS)	20x15mm to 50x40mm	\$5.69 to \$17.79
Male couplings (HMS)	15mm to 50mm	\$3.90 to \$17.65

Reducing male couplings (HRMS)	20x15mm to 25x20mm	\$4.84 to \$5.79
Bends (HRMS)	15x20mm to 25x20mm	\$4.84 to \$5.79
Female bends (HFB)	15mm to 50mm	\$10.48 to \$25.66
Female reducing bends (HRFB to HRS)	15x20mm to 50x40mm	\$10.46 to \$25.66
Male bends short (HMBS)	15mm to 25mm	\$9.51 to \$14.67
Male bends long (HFB)	15mm to 50mm	\$9.51 to \$25.30
Reducing male bends (HRMB)	15x20mm to 20x25mm	\$9.51 to \$14.67
Tees (HT)	15mm to 50mm	\$8.42 to \$45.65
Reducing tees (HRT)	15x20x15mm - 50x40x50mm	\$10.00 to \$45.65
Female tees (HFT)	15mm to 50mm	\$10.60 to \$45.41
Male tees (HMT)	15x20x15mm - 50x20x20mm	\$7.72 to \$9.30
Bracket elbow (HBE)	15mm to 20mm	\$9.20 to \$12.25
Hex socket (SS)	15mm to 50mm	\$2.11 to \$7.48
Hex plug (SP)	15mm to 100mm	\$0.87 to \$25.37
Reducing hex socket (SRS)	15x20mm to 50x40mm	\$2.90 to 7.48
Threaded male/female elbows (HTMF)	15mm to 50mm	\$3.20 to \$9.25
Threaded tees (ST)	15mm to 50mm	\$3.63 to 11.04
Reducing brush (SRB)	20x15mm to 100x80mm	\$2.25 to \$26.21
Hex caps (SC)	15mm to 50mm	\$1.67 to \$5.30
Hex nipple (SHN)	15mm to 100mm	\$1.23 to \$32.02
Reducing hex nipple (SRHN)	20x15mm to 100x80mm	\$1.60 to \$32.03

MICO Pipelines: PVC Pressure pipe, metric pipe series (available in 6m lengths).

Class B – red print			
Size (mm)	Socketed one end	Size (mm)	Rubber ring joint
40 to 65	\$53.91 to \$107.07	80 to 125	\$172.63 to \$365.16
80 to 100	\$165.23 to \$247.95	150 to 200	\$464.93 to \$840.47
Class C – blue print			
50 to 65	\$90.24 to \$134.08	50 to 100	\$96.04 to \$325.67
80 to 100	\$195.81 to \$317.06	125 to 200	\$500.68 to \$1149.68
Class D – green print			
32 to 50	\$56.78 to \$109.99	50 to 100	\$116.56 to \$429.38
65 to 100	\$156.44 to \$420.94	125 to 200	\$664.63 to \$1568.79
Class E – brown print			
15 to 40	\$21.44 to \$85.67	50 to 100	\$142.84 to \$517.03
50 to 100	\$136.28 to \$506.65	125 to 200	\$804.61 to \$2140.91
Class F – yellow print			
20 to 32	\$39.07 to \$80.29	-	-
50 to 80	\$142.80 to \$372.31	-	-

MICO Pipelines: Novakey PVC Pressure Pipe Fittings

Size	Plain 90° Elbow	Formed 90° Bend
15 mm to 32 mm	\$2.36 to \$8.09	\$4.67 to \$15.33
40 mm to 80 mm	\$10.50 to \$39.82	\$25.58 to \$74.49
100 mm to 125 mm	\$65.15 to \$446.03	\$114.78 to 412.03
150 mm to 200 mm	\$717.67 to \$1560.30	\$495.98 to \$1072.06

	Plain 45° Elbow	Formed 45° Elbow
15 mm to 32 mm	\$2.53 to \$7.70	\$4.67 to \$15.33
40 mm to 80 mm	\$8.38 to \$39.23	\$25.58 to \$74.49
100 mm to 125 mm	\$97.73 to \$429.59	\$150.16 to \$404.76
150 mm to 200 mm	477.23 to \$1249.67	\$427.44 to \$792.32

Low Density Polyethylene Pipe

Coil Length	Pipe size					
	15mm	20mm	25mm	32mm	40mm	50mm
25m	\$17.89	\$18.95	\$23.70	\$29.34	\$36.10	\$47.39
50m	\$52.83	\$37.92	\$47.39	\$58.68	\$72.20	\$94.79
100m	\$105.67	\$75.83	\$94.79	\$117.35	\$144.40	\$189.57
200	\$211.33	\$151.65	\$189.57	\$234.72	\$288.80	-

Medium Density Polyethylene Pipe (Redline)

Coil Length	Pipe size					
	20mm	25mm	32mm	40mm	50mm	63mm
50m	\$29.31	\$41.13	\$50.39	\$66.84	\$104.88	\$158.35
100m	\$58.62	\$82.26	\$100.78	\$133.68	\$209.77	\$316.70
200m	\$117.24	\$164.52	\$201.56	\$267.35	\$419.53	\$633.41

Flexible Medium Density Polyethylene Pipe (Greenline)

Coil Length	Pipe size					
	20mm	25mm	32mm	40mm	50mm	63mm
50m	\$26.33	\$34.80	\$43.25	\$52.66	\$81.35	\$124.12
100m	\$52.66	\$69.60	\$86.50	\$105.32	\$162.68	\$248.24
200m	\$105.32	\$139.20	\$173.00	\$210.64	\$325.36	\$496.48

Horticultural Lateral Tube. (Maximum working pressure: 3.1 bar/310kpa/45psi)

Coil Length	Pipe size			
	13mm	16mm	19mm	25mm
100m	\$30.57	\$36.15	\$47.26	\$60.08
400m	\$122.30	\$144.55	\$141.75(300m)	\$122.85(200m)

Effluent Pipe. Medium density polyethylene pipe.

Coil Length	Pipe size		
	63mm	75mm	90mm
50m	\$131.65	\$305.62	\$416.11
100m	\$263.30	\$611.24	\$832.22

Evergreen Horticulture and Hydroponics:

Low Density Black Polythene Pipe	Price per 100 m
15/20/25/32/40/50mm	\$53.00/\$101.00/\$126.40/\$156.40/\$192.60/\$252.80
Low Pressure Lateral Tube	
13/16mm/19mm/25mm	\$28.00/\$33.35/\$42.65/\$64.00

PVC Pipe Class E 6m lengths	
15mm/20/25/32/40/50mm	\$10.75/\$15.31/\$21.95/\$33.49/\$42.95/\$68.30
Valves	
Solenoid valves	from \$36.30
Polypropylene ball valves	from \$7.97
PVC ball valves	from \$8.30
Brass ball valves	from \$10.78
Brass gate valves	from \$9.32
Check valves	from \$22.08
Pressure reducing valves	from \$22.00
Trough valves	from \$29.50

Steel & Tube N.Z. Ltd.:

Galvanised wrought steel pipe fittings:	10 mm	20 mm	40 mm
Tee	\$3.10	\$4.10	\$11.90
Bend	\$9.60	\$14.85	\$34.46
Elbow	\$2.25	\$3.00	\$8.90
Barrel and Piece	\$4.65	\$5.35	\$8.85
Galvanised black malleable fittings:			
Elbows - banded equal	\$1.42	\$1.90	\$5.69
- banded reducing	\$1.86	\$2.09	\$6.64
Tees - banded equal	\$1.96	\$2.59	\$7.58
- banded reducing	\$2.97	\$2.97	\$8.85
Plugs	\$1.48	\$1.65	\$4.20
Ball Valves - full flow brass ball	\$10.40	\$15.85	\$57.00
- brass, T bar handle		20mm (male/female)	\$11.50

Jobe Valves Ltd:

Reservoir Valves - Megaflo

Drop	20 mm	25 mm	32 mm
100 mm	\$77.00	\$77.00	\$85.00
300 mm	\$83.00	\$83.00	\$91.00
600 mm	\$89.00	\$93.00	\$99.00

Trough Valve - Megaflo	20 mm	25 mm	32 mm
Side and Bottom Entry	\$29.50	\$29.50	\$35.50
Top Entry	\$32.00	\$32.00	\$38.00
Tank water level indicator (complete)			\$120.00

Trough valve - Rojo	15 mm	20 mm
Side, bottom and top mounting	\$19.95	\$19.95

Gallagher:

AgQuip Stock Proof Trough Valves

20mm/25mm Polycarbonate	\$27.40/\$32.02
Float only	\$8.46

2.18.9 Rural Domestic and Stock Water Supply Charges

Note: These prices are all inclusive of GST.

Ashburton District Council

New and existing users of “large quantities of water” will be charged \$0.17 per cubic metre with a minimum charge of \$17.50 per quarter. (This will generally apply to commercial and industrial properties that have a connection greater than 15mm.)

Buller District Council

\$214.00 for the first 550 cubic metres, 50 cents per cubic metre thereafter.

Central Otago District Council

The rates and charges listed below are based on the Adopted Annual Plan and vary depending on the area.

- per serviced property - \$128.20 to \$455.80
- per serviceable property - \$64.10 to \$227.90

New Plymouth District Council

Residential properties within town – annual water charge of \$180.20 included in the rates account.

Properties on a metered water system – 62 cents per cubic metre of water used plus an annual supply charge of \$50

Rural properties connected to the council water system are on a restricted flow basis. Water is drip fed over a 24 hour period into the customer’s holding tank. Customers choose the quantity of water they wish to receive, and pay accordingly. One cubic metre per day costs \$100 per year.

Queenstown Lakes District Council

For Queenstown and District, Arrowtown and Wanaka and District:

UAC \$100 to \$150

Differential rate \$0.000549 to \$0.000684 (CV) for primary industry

For Other Water Supplies:

Full charge \$160 to \$550

Half charge \$80 to \$275

Hauraki District Council

An annual charge of \$60.00 for each water meter. A charge of \$0.50 to \$0.70 for each cubic metre of water supplied depending on the area and the amount supplied.

Kaikoura District Council

A uniform annual charge of \$135.53 on every separately rateable property connected to the Kaikoura water supply and of \$67.77 on every separately rateable property to which water can be but is not supplied, being a property situated within 100 metres from any part of the Kaikoura water supply.

Papakura District Council

\$1.06 per 1000 litres for water and \$2.33 per 1000 litres for wastewater.

Ruaapehu District Council

\$0.68 to \$1.52 per cubic metre supplied, with a minimum charge of \$200 to \$539 per annum.

South Taranaki District Council

Water is paid for by a meter charge of 17 to 106 cents per cubic metre used, depending on the water supply area in which the property is located. (9 urban supplies and 7 rural water supplies). The minimum quantity charged for is 300 cubic metres. The minimum annual charge ranges from \$180 to \$318. Note: These minimum charges do not apply in all areas.

South Waikato District Council

320 cubic metres per annum is the entitlement within the Uniform Annual Charge. Extraordinary users will pay the UAC as the minimum charge plus 55 to 100 cents per cubic metre of water used above 320 cubic metres, depending on the area.

South Wairarapa District Council

Water rates do not apply to most rural properties however rates can apply to some vineyards close to urban areas. For those areas there is a surcharge of \$368, which allows the property up to 450 cubic metres. For amounts over 450 cubic metres, the cost is 80 cents per cubic metre.

Tasman District Council

All metered connections excluding Motueka Township (other than for industrial usage):

- 10 cents per calendar day plus 47 cents per cubic meter of water supplied.

Motueka Township metered connections (non-industrial):

- 47 cents per cubic metre of water supplied.

Industrial metered connections:

- 25.9 cents per cubic metre of water supplied

Connections using a low flow restricted supply: \$90.00 per annum for each unit.

Waitomo District Council

Metered supply is charged at 70 to 78 cents per cubic metre.

Westland District Council

Water is only supplied to residential areas. The charge is 40 cents per cubic metre.

2.18.10 Water and Discharge Permits

An example of resource consent charges from a North Island Council is shown below.

	Fixed Charge	Additional charge
Land Use Consent for Bore Permit	\$150	N/A
Other Consents	\$500	Based on actual costs
Minor administrative changes or cancellations of Consent conditions	\$120	N/A
Other changes or cancellations of Consent conditions	\$300	Based on actual costs

Review of conditions as specified in Resource Consents	\$300	Based on actual costs
Transfer a Consent to another site	\$300	Based on actual costs
Transfer of resource Consent to new owner/occupier	\$60	N/A
Certificate of Compliance Bore sealing	No charge	
Other	\$100	N/A

The actual costs include time spent by staff in receiving, processing and granting the consent, adding actual disbursements, adding any hearing costs, then subtracting the fixed charge that was paid in advance and any renewal fees paid in advance.

Annual Monitoring Charges:

Monitoring task	Fixed annual charge
Inspection and associated reporting and administration	\$245
Sampling (sampling analysis will be at cost)	\$70
Quarterly water use returns	\$87.50
Monthly water use returns	\$140
Other information returns	\$70

Examples of compliance monitoring fixed charges are:

- Land Use Consent for a culvert - \$245
- Discharge permit for a domestic on-site wastewater discharge - \$385
- Water permit to take surface water and record water used - \$385
- Consent Holders taking water for irrigation from rivers with low flow limits - \$125

Canterbury Regional Council:

Preliminary Fixed Charges. (GST included)

Applications for land use consents to burn vegetation where the activity is classified as permitted in any proposed regional plan.	Nil
Applications for land use consent to install or alter a bore.	\$168.75*
Applications for land use consent to excavate gravel for a period of 3 months or less from a riverbed.	\$168.75*
Application for a coastal permit for a swing mooring.	\$337.50
Application for any other resource consent.	\$675.00
Applications to change or cancel condition(s) of a resource consent.	\$506.25
Applications to transfer a water permit from site to site.	\$506.25
Applications for certificates of compliance	\$168.75
Notification of transfer of a resource consent.	\$56.25

Further Fixed Charges

Site visit, per visit.	\$168.75
Public notification (incl site notice and the identification of affected persons).	\$450.00
Holding formal pre-hearing meeting.	\$731.25
Organise a pre-hearing meeting.	\$112.50
Organise a hearing.	\$281.25
Organise a joint hearing.	\$337.50
Hearing committee or commissioner(s) (per half day).	\$393.75
Writing up and issuing the of the hearing committee or commissioner(s).	\$3375.00

* this charge includes a monitoring charge of \$28.12.

Wellington Regional Council:

Non-notified Consents

- A resource consent is usually not publicly notified if its effects are minor and those who might be affected by it agree to it being granted. The application charges for non-notified resource consents are as follows (GST included):

Discharge to Land (e.g. spray irrigation of dairy effluent)	\$315.00
Discharge to Water (agricultural or sewage)	\$1,181.25
Discharge to Water (other)	\$315.00
Take, Use, Dam or Divert Surface Water	\$315.00 to \$472.50
Take, Use, Dam or Divert Groundwater	\$275.63 to \$393.75

2.18.11 Irrigation Equipment - Pastoral and Horticultural

Rainer Irrigation Ltd.:

Travelling Irrigators

Briggs Model 200 Roto Rainer and Hose Trailer (Standard)	\$35,586
Briggs Model 250 Roto Rainer and Hose Trailer (Standard)	\$42,998
Briggs Model 250 Linear Rain Turbine Drive and Hose Trailer (Standard)	\$50,858
Briggs Model 125 Roto Rainer and Hose Trailer (Standard)	\$33,577
Briggs Model 100 Roto Rainer and Hose Trailer (Standard)	\$26,213
Briggs Model 25 Roto Rainer and Hose Trailer (Standard)	\$18,057
Briggs Model 25 Trailer	\$4,800
Briggs Model 10 Roto Rainer Standard (Effluent Irrigator)	\$3,300
Briggs Model 10 Hose Trailer	\$4,400
Briggs Model 125, 200 or 250 Hose Trailer (Standard)	\$7,158
Briggs Model 100 Hose Trailer	\$5,400

Hoses

Angus or Snaptile

65mm to 75mm	\$19.50 to \$32.00 per metre
89mm to 100mm	\$36.50 to \$45.00 per metre
114mm to 125mm	\$54.00 to \$59.50 per metre

Underground Mainline (PVC pipes)	Class B (per metre)
80/100/125/150/175/200mm	\$7.80/\$9.50/\$11.52/\$14.32/\$22.00/\$25.10

Hydrant outlets cost \$200 to \$350 each. Trenching and laying costs \$2.00 to \$3.50 / metre.

Irrigation and Pumping Services Ltd.:

Southern Cross Irrigators

Irrigator complete with sprinklers, black hose (Angus)

SX 10	25 mm x 56 m hose and sprinkler	\$2,270
SX 20	38 mm x 67 m hose and sprinkler	\$3,416
SX 30	50 mm x 100 m hose and sprinkler	\$9,002
SX 250	75 mm x 150 m hose and gun	\$21,917
SX 350C	89 mm x 200 m hose and gun	\$27,151
SX 550	100 mm x 200 m hose and gun	\$45,326
SX 550	115 mm x 200 m hose and gun	\$46,942

Hoses

Angus Hose	44 mm to 75 mm (black)	\$13.40 to \$28.31 per metre
	100 mm to 150 mm (black)	\$45.30 to \$67.67 per metre

Sprinklers (each)

Naan	233 AF	11 to 62 litres per minute	\$46.65
	5035	11 to 42 litres per minute	\$17.25
	254	18 to 124 litres per minute	\$74.85

Pump Units Complete with Motor - Starline ISO Motorpumps

50 x 32	200	11kW	2P	7 litres per sec	92gpm	65m	\$3,733
65 x 40	250	15kW	2P	9 litres per sec	120gpm	78m	\$4,193
80 x 50	250	22kW	2P	20 litres per sec	264gpm	68m	\$4,795
100 x 65	250	30kW	2P	28 litres per sec	370gpm	68m	\$5,607
100 x 65	250	45kW	2P	35 litres per sec	460gpm	86m	\$7,001
125 x 100	315	90kW	2P	60 litres per sec	790gpm	100m	\$11,872

Taupo Engineering: (North Island prices including freight)

DML – Rainbeau Irrigators:

MK I Travelling effluent irrigator	150m of cable (3 mm cable)	\$3,100
MKIII Travelling water irrigator	150m of cable	\$3,420

Ecostream Irrigation:

Ecostream low pressure, continuous drive, travelling irrigator 200 or 300 metres. Many optional extras available.	\$3,795 to \$4,795
Ecostream stationary irrigator (ideal for steep contours and small areas)	\$995

2.18.12 Irrigation Equipment - Horticultural

Water Dynamics Ltd.

Driplines - Aquatraxx

15 ml x 8"/12" spacing 1373m	\$495
8 ml x 8"/4" spacing x 2285m 56 litre/hour	\$480
4 ml x 8" spacing x 3960m	\$650
8 ml x 8"/4" spacing x 250m	\$115.50

Hydrodrip

35 ml x 90/60 x 1.8 x 600m	\$341/\$374
25 ml x 60/40x 1.8 x 600m	\$374/\$467.50

Note: ml = 1000th of an inch ie 35 ml = 0.90mm wall thickness

Irrigation Controllers

Hunter EC 600 - 6 stations	\$220
Orbit control star - 4 to 12 stations	\$348 to \$725
Sterling control - 4 to 12 stations	\$1,380 to \$4,365
Mini-Click Rain Sensor MC2	\$90
Hunter ICC Expandable 8 to 32 stations	- Metal case \$1,305 to \$2,097
	- Plastic case \$650 to \$1,387

Filters - *Amiad*

Plastic Filters		
Filter AM20AF	- 20mm black with flushing valve	\$66.00
Filter AM25AF	- 25mm with nylon screen and flushing valve	\$146.00
Filter AM40D	- 40mm with grooved disc element	\$300.00
"T" Filter AM50T	- 50mm with moulded stainless steel screen	\$550.00
Super "T" Filter	- 50mm with grooved disc element	\$685.00
Plastic AM80LTS	- 80mm threaded with grooved disc element	\$1,185.00
Steel Filters		
Filter AM50M	- 50mm with moulded stainless steel screen	\$975
Filter AM80MD	- 80mm with grooved disc element	\$1,460
Filter AM100MD	- 100mm with disk or s/s screen	\$2,136

Evergreen Horticulture and Hydroponics:

Drippers For Lateral Pipe		
Button dripper 2/4/8/litres per hour		\$0.40
Junior woodpecker – pressure compensating		\$0.54
2/4/8 litres/hour		
Regulated button dripper – pressure compensating 2/4/8 litres/hour		\$0.90
Driptide T –Tape		
10cm drip spacing 455m roll / 2300m roll		\$139.00 / \$489.20
20cm drip spacing 455m roll / 2300m roll		\$124.00 / \$411.20
30cm drip spacing 455m roll / 2300m roll		\$110.50 / \$400.00
Low Pressure Lateral Tube per 100m		
13mm/16mm/19mm/25mm		\$28.00/\$33.35/\$42.65/\$64.00
Fertiliser Injectors c/w tube / strainer and valve		\$205.00 to \$1,082.00
Dosematic Proportional Feeder		from \$1150.00

AB Products Ltd:

Driplines – Driptide		
15ml x 8"/12" spacing 1373mtr Aquatraxx		\$495.00
8ml x 8"/4" spacing 2286mtr/250mtr Aquatraxx		\$561.00/\$115.50
10ml/5ml x 8" spacing 1829mtr/3810mtr Rodrip		\$544.50/\$687.50
Driplines – Hydrodrip		
35ml x 90cm/60cm spacing x 1.8lph x 600m		\$341.00/\$374.00
25ml x 60cm/40cm spacing x 1.8lph x 800m		\$374.00/\$467.50
Driplines – Driptube		
16mm x 2.2lph pressure compensated x 30cm/60cm x 100m		\$150.00/\$120.00
16mm x 4.0lph pressure compensated x 50cm/1000cm x 100m		\$125.00/\$99.00
16mm x 2.2lph/1.6lph pressure compensated x 60cm x 400m		\$460.00/\$484.00
Sprinklers		
Tornado/Rondo mini sprinkler on stake c/w tube, 2-4m radius, 33-50lph		\$2.70 to \$3.90
½" Full/part circle impact sprinkler plastic, 12m radius		\$14.85
¾" Full circle impact sprinkler, anti-frost plastic or brass, 16 m radius		\$19.80/\$37.40
1" Full circle impact sprinkler brass 23m radius		\$76.80
Hunter I31/PGP gear drive pop up sprinkler 19m/15m radius		\$139.15/\$59.80
Controllers		

Hunter EC4/EC6 Stn controller with plug pack	\$180/\$220
Hunter ICC 8/12 Stn controller in plastic/metal box	\$650/\$1,437
Sterling 12/24 Stn frost controller	\$1,675/\$2,745
Solorain battery timer c/w Hit25 valve – no flow control	\$253
Filters – Plastic	
20mm/25mm Amiad acetyl filter and screen	\$66.00/\$146.00
40mm filter + s/steel screen and flushing valve	\$320.00
Amiad T-2 Filter 50mm c/w s/steel screen	\$550.00
Filter T-2 super filter 50mm and s/steel screen	\$685.00
T-3 Filter 80mm flanged c/w moulded s/steel screen	\$935.00
50/80mm 'T' Autoflush filter, screen and controller	\$5,305.30
Filters – Steel	
Steel filter 50mm/80mm c/w screen	\$975/\$1,460
Steel filter 100mm compact/150mm super c/w moulded s/steel screen	\$2,136/\$3,580
Water Meters	
Water meter 50mm MT-EX-50	\$242
Water meters 80mm to 150mm LXLG	\$435 to \$875
Water meters 80mm to 150mm IRT (Pulse)	\$970 to \$1,790
Valves	
Hunter 25mm Solenoid valve with F/C	\$64.00
Hunter PGV 40mm or 50mm Solenoid valve angle/globe	\$172/\$250
Hunter ICV 25mm to 50mm Solenoid valve c/w flow control	\$138 to \$327
50mm to 100mm Dorot cast iron electric control valve table 'D'	\$458 to \$1,097
50mm to 100mm Dorot cast iron pressure reducing valve table 'D'	\$484 to \$1,246
Fertigation	
Mazzei injector models 283-584 c/w suction tube/strainer & valve	\$205.00-\$259.60
Dosmatic advantage A20-20GPM/A30-30GPM	\$1,150/\$1,190
Amiad TMB injector 250 litre / 50 litre	\$2,995/\$1,200

2.18.13 Irrigation Water Supply Charges

Farm Charges

Charges for irrigation vary depending on the length of time the scheme has been in operation, the size of the scheme, the source of water and the number of farmers participating in the scheme.

Some examples of water charges for the 1999/00 season for community irrigation schemes in the South Island are as follows:

<u>Scheme</u>	<u>Charges</u>
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Amuri Irrigation Co:

- Borderdyke/Spray \$32/\$25 per ha
- Up front cost to buy irrigation rights:
 - \$25.00 per "A" share (one "A" share is one hectare of developed land)
 - \$12.50 per "B" share (one "B" share is one hectare of yet to be developed land).

Ashburton-Lyndhurst Scheme: \$16/ha/year, plus \$50 admin charge

Mayfield-Hinds Scheme: \$15/ha/year, plus \$50 admin charge

Morven, Glenavy and Ikawai Irrigation Co:

- Borderdyke \$20/ha for 1st 810 mm plus 1.20/1000 m³ over 810 mm
- Spray \$12/ha

Lower Waitaki:

- \$9.00 per ha spray irrigation (on demand)
- \$16.00 per ha for borderdyke irrigation (16 day rotation)

2.18.14 Irrigation Scheduling Service

Hydro Services:

Provides agricultural and horticultural properties with irrigation management advice based on weekly soil moisture measurement using a Neutron Probe, Tensiometers, Diviner and other technology.

Canterbury:

Charges per site reduce depending on the number or sites per location.

Dairy Pasture	\$359.10 per site (1 site) to \$264.60 per site (7-10 sites)
Arable-Horticulture	\$359.10 per site (1 site) to \$264.60 per site (7-10 sites)
Vineyards	\$533.70 per site (1 site) to \$397.80 per site (7-10 sites)

2.18.15 Border Dyke Irrigation

Doug Hood Ltd:

Earthworks:

Earthworks only - \$1,200 per hectare or \$3,000 per hectare which includes the borders, headraces etc. This cost includes: All levelling, construction of levees, construction of supply and head races.

Structures:

Concrete Dams

Depends on flow rate of water and will vary depending on water flow but average \$285.

Sills

Standard sills cost on average \$85 each.

There are various other designs which would generally be more expensive.

Cutting out grass sills costs \$85 per group of borders

Weirs

2.5m - \$485 each

Access Crossings

For a 6 metre crossing, cost including installation and pipes:

300mm diameter pipe	\$75 per metre
750mm diameter pipe	\$250 per metre

Head walls for a 6m crossing, pipe diameter 750mm:	\$220 each
Concrete bridge crossing	\$2,880

2.18.16 Drainage and Subsoiling Costs

The cost of intensive pipe/tile and mole drainage depends on a very large number of variables. *Blackley Contractors* of Manawatu quoted typical flatland costs for intensive (20 to 25mm drainage coefficient) systems:

Clay soils, metal backfill with mole drainage	\$2,450 per ha
Clay soils, mole drainage, no metal backfill	\$2,000 per ha
Silts (no moling), metal backfill	\$2,280 per ha
Silts (no moling or metal backfill)	\$1,850 per ha
Mole drainage	\$105 per ha
Difficult sites with poor outlet conditions or flat country may range up to	\$2,800 per ha

Southtile Ltd: Field Tiles

Diameter (mm)	Length (mm)	Per unit for 100	Per unit for 500
75	300	\$0.88	\$0.74
100	300	\$0.97	\$0.82
125	300	\$1.44	\$1.20
150	300	\$2.07	\$1.72
190	300	\$3.10	\$2.58
100	600	\$2.23	\$1.87
125	600	\$3.16	\$2.63
150	600	\$4.53	\$3.77
190	600	\$6.83	\$5.55
225	500	\$10.02	\$8.35
Junction 'T'	75 x 75mm to 225 x 150mm		\$13.80 to \$21.85
Junction 'Y'	75 x 75mm to 225 x 150mm		\$13.80 to \$21.85

MICO Pipelines:

Farmtuff Extra - PVC culvert pipe, available in 3 and 5 metre lengths (prices are frequently discounted for volume).

Pipe Length	110mm	160mm	200mm	250mm	315mm	400mm	500mm
3m			\$58.25	\$72.00	\$108.00	\$210.58	\$332.65
5m	\$33.95	\$71.48	\$92.45	\$120.00	\$180.00	\$334.27	\$527.97

Nexus Novaflo - land drainage system and Nexus Novacoil - unpunched

Coil length	65mm	100mm	110mm	160mm	200mm
3m	\$7.49	-	\$9.34	-	-
5m	-	-			\$75.70
15m	\$33.57	-	\$40.59	-	-
30m	\$65.15	-	\$81.18	-	\$440.22(29m)
45m	-	-	-	\$254.12	-
50m	-	-	\$135.29	-	-
100m	-		\$270.59	-	-
150m	\$325.61	-	-	-	-
200m	-	-	-	\$1129.41	-
450m	-	-	\$1217.65	-	-

Novaflow - land drainage system and Novacoil - unpunched

Coil length	65mm	110mm	160mm
15m	-	\$29.25	\$61.50
30m	-	\$58.50	-
45m	-	-	\$184.50
50m	-	\$97.50	-
100m	-	\$195.00	-
150m	-	-	-
200m	-	-	\$820.00
450m	-	\$877.50	-

Nexus Hi-Way Drain, Heavy Duty Nexus Punched

Pipe length	110mm	160mm	200mm
5m	\$86.69	\$167.37	\$369.18
45m	-	\$1369.87	-
100m	\$1578.35	-	-

Concrete Culvert Pipes

Cement Products:

Diameter - 6 inch - \$27.18 per metre

Hynds Pipe Systems Ltd:

610mm x 1.2metre	\$77.00
610mm x 400mm	\$50.00
610mm diameter lids	\$33.00
750mm x 900mm	\$94.00
900mm x 900mm	\$122.00
900mm x 1500mm (with floor)	\$242.00

Backfill Gravel

Canterbury supplier:

	per tonne
Crushed Stab topcourse SAP 40 to SAP 20	\$5.20 to \$9.20
Crushed Stab topcourse SAP 40 lime 2%/ SAP 20 lime 5%	\$10.84 / \$17.38
Uncrushed Metal Course	\$4.10
Crushed Unstab topcourse CAP 40 to CAP 20	\$5.60 to \$7.60
NRB Spce topcourse AP 20 to AP 75	\$6.90 to \$8.33
Drainage Board aggregates GC 22-16/14-10/10-5/DAP 40	\$13.20/\$13.20/\$13.20/\$8.30
Railway Ballast/Clay	\$11.40/\$18.00
Pit run/Boulders	\$2.00/\$7.50

Aggregate Supply (Tip Truck Delivery)

Higgins Concrete Limited: (Manawatu area)

Pea metal (minimum charge \$60 per load)	\$18.50
River run (minimum charge \$60 per load)	\$18.50
Gap 40 basecourse (minimum charge \$75 per load)	\$22.00

2.18.17 Dairy Shed Effluent Disposal

See also *section 2.18.5*.

Estimates of capital and annual operating costs for a 200 cow effluent disposal system.

Single Pond or Barrier Ditch

Major Capital Costs

Contractor to dig ponds	\$2,000
Land retired 0.15ha	\$1,500
Fencing	\$800
Pipework	\$800
Sealing liner (if required)	\$3,000
Sump, pump and electric controls from farm dairy (if required)	\$10,500
Total	\$18,600

Annual Operating Cost

Weed spraying	\$150
Minor repairs and maintenance	\$250
Desludging every year	\$900
Total	\$1,300

Two Pond System

Major Capital Costs

Contractor to dig ponds	\$4,000
Land retired 0.2ha	\$2,000
Fencing	\$1,000
Pipework	\$900
Sealing liner (if required)	\$6,000
Sump, pump and electric controls from farm dairy (if required)	\$10,500
Total	\$24,400

Annual Operating Cost

Weed spraying	\$100
Minor repairs and maintenance	\$200
Desludging every three years (annual cost)	\$600
Total	\$900

Spray Irrigation

The spray irrigation system is based on 8 to 10 ha of flat irrigation area. A combination of the following may be used.

Major Capital Costs

Holding Pond	\$2,000
Pump Float	\$1000 to \$1,500
Effluent Sump	\$4,000
PTO Pump	\$6,000
Electric Pump	\$3,000
Electric Pump Controls	\$2,400
Electrical Wiring 20 m to 150 m	\$500 to \$6,000
Effluent Hydrants (surface or buried)	\$700 to \$1,500
Typical mainline 65/80 mm PVC or 75/90 mm Polyethylene	\$5,000

Stationary Irrigator	\$1,000
Travelling Irrigator	\$3,800
Irrigator draghose 150 m x 57 mm diameter, complete with fittings	\$800

Annual Operating Cost

Labour for shifting irrigator	\$650
Repairs and maintenance	\$800
Electricity	\$600
Depreciation 10 to 20 year life	\$1,200

Total	\$3,250
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Economic life of system components varies from 10 to 20 years.

Effluent should flow under gravity or be pumped to a holding pond during periods when it is too wet to apply effluent to the land.

The annual nutrient value of fresh dairy effluent from 200 cows is approximately \$3,000.

All prices include installation .

Source: Grant Titchiner, EcoStream Irrigation, December 2001.

2.18.18 Septic Tanks

Concrete

Cement Products Ltd:

2700/3300 litre (with filter)	\$1035.00/\$1230.00
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Hynds Pipe Systems Ltd: SD number denotes CCC standard drainage unit sheet number

Z5000 with Zabel filter plus plumbing (no pump or electrics)	\$1,540
Septic Tank 3300 litre 2600 l x 1240 w x 1830 d (without Zabel filter)	\$766
Septic Tank 3300 litre as above - with partition (without Zabel filter)	\$944
Septic Tank 5200 litre - 2 Chamber (without Zabel filter)	\$1,100
Zabel Filter	\$310
Pumping chamber	\$446
Septic closet – McKendry Patent	\$462
Septic closet lids - 3 to set	\$144
Sludge tank - 2140mm x 925mm x 1115mm	\$462
Septic tank lids 450mm x 990mm or 650mm x 915mm	\$48
Silt trap/grease trap 175 litre/500 litre	\$280/\$510
Corner single sump S.D. 327 - 400square x 1000h max	\$125
Enlarged single sump S.D.322 - 450 pipe only	\$228
Master trap S.D. 374 including lid (excludes cast iron cover and frame)	\$1855
Flush manhole and lid S.D. 312	\$1166

2.19 FENCING COSTS

2.19.1 Guide to Fencing Costs

(i) Full Contract

Approximate charges for labour and materials for Canterbury conditions:

Flat land: (Costings based on at least 300m of construction, posts 125mm diameter.)

		Price per metre
Standard 8 wire	post per 4m, 5 battens	\$5.60
Netting	8/36/12 S.S.H.T., A8-900-300	\$6.80
Electric	post per 10m, 5 wire	\$3.40 to 3.50
Deer*	13/75/12, A13-1900-300	\$7.50
	11/61/12, A11-1550-300	\$8.00

Medium Hill Country: 8 wire, post per 7 m, wire droppers \$8.50 to \$10.00

(ii) Labour Only

Fencing contractors charge out at around \$18 to \$25 per hour (not including travel). The price for fencing on hill country is determined by such things as contour, ease of digging, ease of access, remoteness of site, size of job and number of strainers and angles required. Labour costs per metre (Canterbury) are currently working out to about \$1.30 to \$1.50 on easy land and \$1.75 to \$2.20 per metre on hill country where some hand digging is necessary.

Another Canterbury contractor charges the following:

Dairy Conversion	\$1.10 per metre
Sheep Fencing	\$1.65 per metre
Deer Fencing	\$1.75 per metre

(iii) Materials Only

Standard Fence

(a) North Island

Morice & Associates Ltd: Napier

Cost per metre for a typical North Island sheep and cattle fence - posts 5 metres apart, 7 wires (No.8 bottom, 1 barb, six 12.5G steel), 5 battens per bay:

Total materials	\$6.39 per metre
Erection cost	\$4.00 (average) to \$5.00 per metre (steep)

(b) Canterbury

Cost per metre for a typical Canterbury 9 wire sheep fence, based on a 400 metre strain with 3 posts per 20 metres.

Total materials	\$3.85 per metre
Erection cost	\$1.30 to \$1.50 per metre

Electric Fence

Cost of Materials for Electric Fences:

Gallagher Electronics Ltd:

5 wire fibreglass fence on undulating to hill country, using one 13mm rod and three 10mm rods per 16 metre	Cost per km = \$2,177
5 electric wire, batten and insulator fence on undulating to hill country at 5 metre spacing	Cost per km = \$1,723
5 wire (electric) insultimber fence on undulating to hill country. 1 post and 3 droppers per 16 metres.	Cost per km = \$1,774

Note: This cost does not include the Energiser unit and accessories.

North Island

Morice & Associates Ltd: Napier

Cost per metre for a typical North Island electric fence - No.3 posts 50 metres apart, 4 wires (3 electrified), four 1.5 metre ground treated battens at 10 metre intervals between posts:

Total materials	\$1.96 per metre
Erection costs	\$2.50 to \$3.00 per metre

Deer Fencing

Cost of Materials for Deer Fences:

(See also Section 2.19.2 onward)

(i) Boundary fence for flat to rolling country:

Spacings: Posts, every 5 metres, Strainers, every 200 metres

Materials required for 400 metres:

Posts 2.7m x 125mm	80 @	\$20.00	\$1,600.00
Strainers 3.7m x 175mm	3 @	\$36.72	\$110.16
Stays 2.7m x 115mm	3 @	\$13.26	\$39.78
Stay blocks 200mm x 50mm x 0.5m	3 @	\$7.00	\$21.00
2.5mm HISPAN V wire (650m coil)	1 @	\$54.00	\$54.00
A13-1900-150 deer netting (100m roll)	4 @	\$386/100m	\$1,544.00
Gate 3.66 x 1900mm	1 @	\$190	\$190.00
Staples 4mm	12 kg @	\$5.11/kg	\$61.32
Gudgeons lock through post	1 @	\$20.00	\$20.00
Gudgeon through post	1 @	\$11.50	\$11.50
Gate fastener and staples	1 @	\$7.00	\$7.00
per 400 metres			\$3,658.76
Cost per metre for materials (excluding labour)			\$9.15

(ii) Internal Deer Fencing:

Fence Design A:

Six wire electric, no netting

Spacings: Flat country, posts up to 30 metres

Droppers up to 8 metres

Tie downs: Where necessary, tie downs should be constructed using droppers rather than posts. This will reduce costs and maintain a degree of flexibility in the fence.

Materials required for 1000 metres

Posts 2.7m x 125mm	30 @	\$20.00	\$600.00
Droppers 1000mm x 40mm x 50mm	100 @	\$1.18	\$118.00
Strainers 3.0m x 175mm	9 @	\$40.88	\$367.92
Stays 2.7m x 115mm	9 @	\$15.00	\$135.00
Stay blocks 200mm x 50mm x 0.5m	9 @	\$7.00	\$63.00
2.5mm H.T. wire (1 coil = 648m)	9.4 coils @	\$53.00	\$498.20
Plastic strain insulators	48 @	\$0.75	\$36.00
Joint Clamps	24 @	\$0.68	\$16.32
Cut-out switch	1 @	\$6.00	\$6.00
Gate breaks (flexible connectors)	4 @	\$4.00	\$16.00
Gates	4 @	\$190.00	\$760.00
Staples 4mm	2 kg @	\$5.11	\$10.22
Gudgeons lock through post	4 @	\$20.00	\$80.00
Gudgeons through post	4 @	\$11.50	\$46.00
Gate fasteners and staple	4 @	\$7.00	\$28.00
cost per 1000 m			\$2,780.66
Cost per metre (excluding labour)			\$2.78

Fence Design B:

Consists of 3 live wires above 800mm 7 line netting. The netting provides an excellent physical barrier for young stock and yet the fence is still inexpensive and quick to erect.

Spacings are the same as for the Fence Design A. Materials required for 1000 metres

Posts 2.7m x 125mm	30 @	\$20.00	\$600.00
Droppers 1.52m insul timber	100 @	\$5.81	\$581.00
Strainer posts 2.7m x 200mm	9 @	\$36.72	\$330.48
Stays 2.7m x 115mm	9 @	\$15.00	\$135.00
Stay blocks 200mm x 50mm x 0.5m	9 @	\$7.00	\$56.00
2.5mm H.T. wire (648m per coil)	4.7 @	\$54.00/coil	\$253.80
Wire netting			
(800mm x 300mm, 7 line)	1000m @	\$120/100m	\$1,200.00
Plastic strain insulators	24 @	\$0.75	\$18.00
Joint clamps	12 @	\$0.68	\$8.16
Cut-out switch	1 @	\$6.00	\$6.00
Gate breaks (flexible connectors)	4 @	\$4.00	\$16.00
Gates 3.66m x 1900m	4 @	\$190.00	\$760.00
Staples 4mm	3 kg @	\$5.11	\$15.33
cost per 1000 m			\$3,978.97
Cost per metre (excluding labour)			\$3.98

2.19.2 Wire

(see also *Section 2.19.6 Wire Netting*)

Cyclone:

Flexspan: (mild steel)			\$ per 25kg coil
	3.15 mm (No. 9) 25 kg	408 metres	\$77.00
	4.00 mm (No. 8) 25 kg	253 metres	\$65.00
Hispan: (high tensile steel)			
	2.00 mm, 25 kg	1,013 metres	\$87.00
	2.50 mm, 25 kg	648 metres	\$54.00
	3.15 mm, 25 kg	408 metres	\$64.00
	4.00 mm, 25 kg		\$66.00
Barbed:			
Iowa pattern	75 mm spacings	225 metres	\$99.00
	150 mm spacings	255 metres	\$99.00
Reverse twist HT	RT 150 mm spacings	500 metres	\$117.00
	RT 100 mm spacings	500 metres	\$117.00

Hurricane:

Barbed wire standard 2.5mm,	75 and 100 mm	25 kg reel	\$84.51 per reel
Reverse twist 1.6mm HTHTR	100 mm	500 m reel	\$100.95 per reel
Lacing wire	2.0 mm	10 kg coil	\$38.91
	1.6 mm	10 kg coil	\$45.91

2.19.3 Posts/Strainers/Droppers/Battens/Stays

Note: Price discounts of 10 to 15% may be possible for bulk orders.

McVicar Timber Group Ltd:

Fencing Posts/Stays -		
Half-Round	1.8m	\$8.12
Posts (1.8 m pointed)	75 to 100 mm	\$7.08
	100 to 125 mm	\$8.66
	125 to 150 mm	\$10.76
	125 mm x 2.7 m pointed	\$20.00
Stays	75 to 100 mm x 2.4 m	\$12.56
	75 to 100 mm x 2.7 m	\$13.26
Strainers -		
175 mm to 200 mm x 2.1 m		\$24.35
175 mm to 225 mm x 2.4 m		\$32.56
200 mm x 2.7 m pointed		\$36.72
Droppers/Battens -		
50 mm x 40 mm x 1 m		\$1.18
50 mm x 40 mm x 1.05 m		\$1.27
50 mm x 40 mm x 1.2 m		\$1.38

Gallagher:

Insultimber		
Post, No 1.	1520 x 38 x 38 mm	\$5.81
Post, No 2.	1380 x 38 x 38 mm	\$5.44
Droppers	940 x 38 x 26 mm	\$2.66
Clips standard and heavy duty		\$0.12

Hurricane:

Fencing Standards (Waratahs) 1650/1800 mm		\$6.97/\$7.58
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Placemakers:

100 x75mm	1.8 / 2.4 / 2.7 / 3 m	\$7.95 / \$8.84 / \$11.95 / \$13.29 each
100 x 100mm	2.4 / 2.7 / 3 m	\$11.95 / \$14.17 / \$16.84 each
125 x 75mm	1.8 / 2.4 / 2.7 m	\$13.43/\$11.93 /\$11.54 each

McAlpines:

Length	Size	Price per post
Posts:		
1.8 m	Small/Medium/Large	\$7.25 to \$8.30/\$9.50/\$10.95
Stays:		
2.4 /2.7m	Medium	\$11.75/\$12.90
Deer Posts:		
2.7 m	Large	\$17.75
Strainers		
2.1 m	150/175	\$18.00/\$20.75
2.4 m	150/175	\$20.00/\$23.60
2.7 m	150/175	\$22.70/\$26.75
Poles:		
3.0 m/3.6 m	Medium	\$35.05/ \$39.90
4.2 m/4.8 m	Medium	\$56.50 /\$66.70
5.4 m/6.0 m	Medium	\$76.90 /\$88.10

Hynds Pipe Systems Ltd:

Concrete posts	Length	\$ each
Intermediate farm posts	1.83 m	\$15.00
Light/medium/heavy strainer	2.134 m	\$42.00/\$46.00/\$52.50
Stay Posts	2.440 m	\$19.00
Stay Blocks		\$7.00

2.19.4 Gates**Electric Spring/Tape Gates***Gallagher:*

Insulgrip handle		\$1.67
Econo gate handle (black/white)		\$3.02
Gate handle, insulated (orange/white)		\$3.55

Spring gate kit complete with handle and insulator	\$9.48
Spring for gate kit (galvanised / white)	\$3.88/\$5.28
Gate, tape complete with handle and insulator	\$10.90
Gate, rope kit complete with handle and insulator	\$11.70
Screw in gate anchor	\$3.56

Beattie Insulators: (wholesale prices)

Spring gate kit – white – 5 m/6.5 m	\$7.95/\$8.30
Tape gate kit - 5m	\$9.00
Heavy duty gate break	\$3.25

Steel

Cyclone:

Farm Gates:		
Economy	3.05m to 4.27m	\$105 to \$90
Deer Gates: 1.9m high	3.66m/4.27m long	\$215 to \$230

Hurricane:

Farm Gates	Length (m)	Price
Sheep Gates	3.05 to 4.25	\$87 to \$94
Cattle Gates	3.05 to 4.25	\$125 to \$155
Stockmaster Gates	3.05 to 4.25	\$185 to \$188
Deer Gates - 1900 mm	3.05 to 4.25	\$179 to \$201
- 1550 mm	3.05 to 4.25	\$195 to \$196

2.19.5 Cattle Stops

C & F Industries:

Type 50, 3.6m x 2.1m heavy duty	\$1,767
3.6m concrete surround	\$598

2.19.6 Wire Netting

Placemakers:

Galvanised hexagonal wire netting	
900 x 13mm / 900 x 50 mm	\$143.99 / \$79.99 per 50m roll

Cyclone:

Twinlock Field	per 100m roll
2.5 mm Wire:	
8 line 900 mm high, 150/300 mm spacings	\$254/\$195
8 line 800 mm high, 150/300 mm spacings	\$264/\$239
7 line 900 mm high, 150/300 mm spacings	\$237/\$184
7 line 800 mm high, 150/300 mm spacings	\$229/\$176
6 line 700 mm high, 150/300 mm spacings	\$195/\$160
7 line 800 mm high, 300 mm spacings	\$120

Tightlock Deer (100m rolls) 2.5mm:		
16 line 1900 mm high, 240 mm spacings		\$330
13 line 1900 mm high, 150/300 mm spacings		\$386/\$230
11 line 1550 mm high, 150/300 mm spacings		\$315/\$227
Tightlock Field Fence (100m rolls) - 2.5mm wire:		
9 line 900 mm high, 150/300 mm spacings		\$301/\$230
8 line 900 mm high, 150/300 mm spacings		\$265/\$191
7 line 900 mm high, 150/300 mm spacings		\$260/\$180

All netting is Tightlock Top Up Fence (200 m rolls) 2.5 mm wire unless otherwise stated.

Hurricane:

		per 100 metres
High Tensile Boundary Fence	13/190/15	\$315
Staytight	13/190/30 to 11/155/30	\$187 to \$211
Hinge Joint	13/190/30 to 11/155/30	\$183 to \$207
Staytight	8/90/30 to 7/90/30	\$154 to \$235
Hinge Joint - South Island	8/90/30 to 7/75/30	\$150 to \$173
Economy	6/70/30, 200m	\$217

2.19.7 Fencing Tools and Equipment

Straining Equipment

Beattie Insulators: (wholesale prices)

Wire Strainers:	Price per item
Insulated wire strainer	\$3.29
Uninsulated wire strainer with spring pin	\$2.25

Cyclone:

Hayes Wire Strainers:	Price per item
Hayes Permanent 302 (Pack of 25)	\$2.50
Tightening Handle – Permanent	\$7.50
Chain Wire Strainer	\$76.00

Post and Standard Drivers

Cyclone:

Hayes Post Rammer Pipe	\$33.00
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Gallagher:

Cap for driving Insultimber	\$31.45
Driver for Insultimber	\$128.79

Post Hole Diggers

B. S. Taege (2000 prices)

100cc motorised powerhead		\$1,249
Single blade 1500 series,	76.2/101.8/127.0 mm	\$183 to \$221
Double blade 1700 series.	152.4/203.2/254 mm	\$240 to \$316

Hydraulic Post Drivers

Fairbrother Industries Limited:

Series I Rancher	Free standing, fixed legs, 3.8 m standard beam (205kg).	\$4,094
Series II Deluxe Rear Mounted	Free standing, adjustable legs, 3.8 m heavy duty beam 205kg, hydraulic top link, hydraulic angular adjustment	\$6,178
Series III Deluxe Side Mounted	Fully hydraulic side shifting, side mounting adjustable legs, 205 kg, heavy duty beam, hydraulic top link, hydraulic angular adjustment and hydraulic side shift	\$9,220

Taege Engineering Ltd: (Prices are ex-Christchurch, add \$350 for freight delivery)

Taege Hydraulic Post Drivers:

Farmers Unit Includes -	4 m mast, hydraulic monkey ram, 600lb monkey, 3/8" wire rope and adjustable legs	\$6,495
Standard Unit Includes -	4 m mast, twin RHS laminated mast, 700lb monkey, 1/2" wire rope and fully adjustable legs	\$7,980
Optional Extras	Hydraulic Top Link 250 mm Stroke	\$640
	Hydraulic Angle Mast 30 deg Angle	\$520
	Hydraulic Side Shift 200 mm Movement	\$995
	Hydraulic End Shift 150 mm Movement	\$1,285*
	Hydraulic Easy-Spike Unit 75 mm dia. pins 1.2 m travel	\$2,250
	850lb monkey	\$286*

*Only available with the Standard Unit.

Fencing Tools

Crowbar 4'6"	\$82.22
Shovel (Premier)	\$46.67
Sledge hammer – 10lb long handle	\$42.67

Gallagher:

Pliers, side cutting	\$48.40
Wire twisting tool	\$4.23
Tool pouch (complete with tools)	\$94.05

2.19.8 Electric Fence Energisers

Gallagher:

Mains Energisers	MX5000 to MBX1500	\$1,002 to \$1,642
Mains Powered	Powerplus M250	\$205
	Powerplus M500	\$334
	Powerplus M1000	\$477
	M4000 - up to 100 km multi wire fencing	\$1,136
Battery Powered	B45 - up to 1.5 km multi wire fencing	\$172
	B1600 - up to 60 km multi wire fencing	\$923
Solar Powered	B160 solar kit	\$736
	B1600 solar kit, 60 watt	\$2,787
	Additional Panel for B1600/B160	\$869.49 / \$1,474.87

Stafix:

Stafix M36 Energiser	\$1,600
Stafix AN90 Energiser	\$122

2.19.9 Insulators*Beattie Insulators: (wholesale prices)*

Wooden post insulators	\$0.19 to \$0.49
Waratah or Y insulators and flat standard insulators*	\$0.29 to \$0.38
Strainer / corner insulators	\$0.52 to \$1.80
Gate Break Kit (including anchor and live connection)	\$5.00
Outriggers	\$1.13 to \$1.18
Pigtail outriggers	\$1.25 to \$2.15
Concrete post insulator (with 100mm or 125mm screw)	\$1.00

*With nuts and bolts for fastening.

Discounts: - 7.5% quantity discount for 5,000 insulators
 - Bulk pack - less \$5.00 per 1,000 (one type)

Gallagher:

Plastic:	
Super Strain – white	\$0.83
Turbo End Strain – white	\$1.33
Long Life wooden post	\$0.45
Pinlock wooden post/Y steel post	\$0.25/\$0.40
Polytape insulator for polytape, up to 40mm	\$3.24
Offsets: 300 mm with Pinlock insulator	
300 mm staple onwith Pinlock insulator	
Pigtail offset 150mm 400mm	\$1.50/\$1.84

2.19.10 Electric Fence Reels and Wire*Beattie Insulators: (wholesale prices)*

Insultube - 30 m coil	\$13.00
Insulsticks x 100mm/Insulsticks x 140mm	\$10.50
Self insulated fence reel	\$25.20
Livestock Electric Netting – 50 metres	\$139.00

Cyclone: - Electric Fence Wire

2.00 mm (soft) 204m roll, galvanised	\$25.00
Needle lacing wire, galvanised	\$8.50

Gallagher:

Strip grazing reels - small	\$29.79
- medium complete with handle and insulgrip	\$38.66
- medium geared complete with handle/insulgrip	\$41.84
- large geared complete with handle and insulgrip	\$51.56
Triple reel system (3 reels prewound polywire mounted on stand)	\$167.44

Reel stand for deer fencing (1 to 4 reels)	\$29.46
Reel stand (1 to 3 reels)	\$17.11
Lead, connector for single reel	\$4.71
Lead, connector for multi reels	\$12.78
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Wire and Tape:	
XL wire, aluminium coated high conductive 1000m	\$384.82
Polywire - Ultra white, 6 strand, 200/500m	\$13.80/\$32.45
Turbo Wire - white XL, 9 strand, 200/400m	\$30.46/\$57.49
Polytape - orange/white, 5 strand, 200m	\$23.18
Turbo tape - white, 200/400m	\$32.04/\$62.32
Turbo Rope - 200/500m	\$115.88/\$224.80
Electric Netting - Euronet 50m	\$133.26

2.19.11 Electric Fence Standards/Outriggers

Gallagher:

Tread-in, polymer, multiwire	\$2.32
Heavy duty multiwire tread-in	\$2.68
Extenda-post (heavy duty tread-in with extension)	\$4.22
Pigtail standard (white plastic coated)	\$1.77
Fibreglass:	
Post 1200 x 10 mm / 1370 x 13 mm (white)	\$2.71/\$5.34
Post 1500 x 10 mm / 2000 x 10 mm (orange)	\$3.42/4.55
Post 2000 x 13 mm (white)	\$7.98
Quick Clips 10 mm / 13 mm	\$0.18/\$0.26
Pressure Plate (for 10 and 13 mm)	\$0.64
Cap, Driver	\$8.96
Outrigger 10 mm diameter x 20 mm	\$0.80
Outrigger pointed 10 mm diameter x 300 mm	\$1.14

2.19.12 Electric Fence Cable

Gallagher:

1.6 mm double insulated cable, 50 m	\$19.26
2.5 mm undergate double insulated cable (2 x 50 m)	\$83.48
Leadout cable, XL high conductive, 200 m	\$237.71

Beattie Insulators: (wholesale prices)

Underground Cable - 1.6 mm x 25 m	\$9.50
- 2.5 mm x 25 m	\$12.00
- 1.6 mm x 50 m	\$14.50
- 1.6 mm x 100 m	\$27.50
- 2.5 mm x 50 m (heavy duty)	\$20.53
- 2.5 mm x 100 m (heavy duty)	\$40.54
- 2.5 mm x 250 m (heavy duty)	\$104.77

2.19.13 Electric Fencing Accessories

Gallagher:

Testers -	Neon	\$22.62
	Digital volt meter	\$68.46
	Live lite tester	\$33.37
Batteries -	Digital volt meter, old type	\$92.70
	Dry cell	\$62.06
	Low loss	\$289.69
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Earthing Equipment:	Galvanised joint clamp	\$0.68
	Screw in tie down (galvanised)	\$4.38
	Screw in tie down handle	\$22.33
	Earthing stake, galvanised 2m	\$12.23
	Earth clamp, galvanised	\$5.06
	Gallagher super earth kit	\$82.33

Stafix:

Stafix Lite tester	\$26.00
Stafix digital voltmeter	\$88.00

2.19.14 Staples

Hurricane:

Plain	up to 40mm	\$25.55 per 5 kg pack
Barbed	up to 40mm	\$27.39 per 5 kg pack
Concrete post staples	4mm x 5 kg	\$26.49

Cyclone:

Barbed staples	40 x 4.0 (25 kg box)	\$95.00
	50 x 4.0 (25 kg box)	\$97.00

2.20 MACHINERY, IMPLEMENTS and PLANT

Many manufacturers and importers of farm and horticultural machinery do not have fixed price lists. In many instances, especially for larger models, machinery will be imported only when specifically ordered by a client, and the price will be negotiated on an individual basis. Trade-in provisions and financing arrangements, also negotiated on an individual basis, may alter final prices considerably, as will fluctuations in exchange rates.

2.20.1 Vehicles - Average Prices

These are guidelines only - please refer to later sections for details of specific models.

Tractors (see *Section 2.20.3*)

The tractor prices below show price ranges for different sizes (power ratings) but they also indicate the price range for different models/brands (2WD and 4WD).

	Average Price	Range
22 to 37 kW (30 to 50 hp)	\$38,700	\$29,990 to \$56,990
38 to 52 kW (51 to 70 hp)	\$51,275	\$39,135 to \$61,900
53 to 75 kW (71 to 100 hp)	\$76,850	\$50,000 to \$89,000
75 to 100 kW (75 to 133 hp)	\$94,925	\$66,990 to \$116,000
Over 100 kW (over 133 hp)	\$178,280	\$87,265 to \$240,000

Farm Bikes (see *Section 2.20.4*)

2 wheel	\$6,020	\$3,700 to \$9,350
4 wheel (2 or 4 WD)	\$13,050	\$6,220 to \$20,880

Trucks and Utilities (see *Section 2.20.14*)

There are a range of models with differing cab/deck arrangements, mostly with a choice of fuel type and 4WD option.

2WD vehicles	\$28,550	\$20,450 to \$40,000
4WD vehicles	\$38,700	\$35,050 to \$88,190

2.20.2 Implements and Plant - Average Prices

Please refer to later sections for details of specific models.

Mowers (see *Section 2.20.5*)

Drum or Disc	\$13,880	\$6,995 to \$17,850
(these may have a conditioner attached or as an optional extra)		
Mower Conditioners	\$38,400	\$22,995 to \$119,000

Hay Rakes

(see <i>Section 2.20.6</i>)	\$20,020	\$4,995 to \$37,875
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Hay Balers (see *Section 2.20.6*)

Conventional	\$36,150	\$32,800 to \$37,500
Big balers - Round	\$58,970	\$53,780 to \$72,810
- Square	\$118,100	\$53,990 to \$198,500

Ploughs (see *Section 2.20.16*)

Depending on the number of furrows and tractor mounting

\$35,620 \$10,860 to \$68,990

Discs (see *Section 2.20.16*)

\$32,980 \$13,090 to \$46,990

Harrows (see *Section 2.20.16*)

\$2,880 \$473 to \$5,082

Power Harrows

\$32,840 \$19,365 to \$80,335

Rollers (see *Section 2.20.16*)

Heavy rollers	\$12,000	\$8,000 to \$16,000
Cambridge rollers	\$6,790	\$3,700 to \$17,500

Drills (see *Section 2.20.17*)

\$37,500 \$11,798 to \$62,800

2.20.3 Tractors

Note: As most manufacturers express tractor power in horsepower (hp) rather than kW, that description has been used in this manual. 1 hp = .7475 kW, ie a 100 hp tractor = 74.6 kW tractor. Readers also need to be aware that tractor power may be expressed as maximum PTO power or as engine power usually to DIN 70020 standard. For further explanation see the companion volume; Farm Technical Manual.

Kubota: (C.B. Norwood)

Commercial Garden and Mowing Tractors:			
G1800		16 hp	\$15,575 to \$17,441
F1900E	2WD / 4WD	18 hp	\$19,560 to \$23,462
F3560	4WD	33 hp	\$35,197
Compact Tractors and Optional Mid Mowers:			
B1700 HST	4WD	17 hp	\$20,664 to \$21,036
B2710 HST DT		27 hp	\$27,931 to \$28,004
ST30 HST	4WD	30.5 hp	\$32,043 to \$32,295
L Series Tractors:			
L3410 HST DT		35.1 hp	\$34,980 to \$35,664
L4310 DT		45.3 hp	\$39,134 to \$39,838
L4310 FP Q and DT Q	2WD and 4WD	45.3	\$48,587 to \$51,844
M Series:			
M5400 FP and DT	2WD and 4WD	60hp	\$42,930 to \$47,509
M110/M120 Series:			
M110 DTQ	4WD	110 hp	\$110,861
M120 DTQ	4WD	120 hp	\$116,232

New Holland: (C.B. Norwood)

Utility and Special Tractors:		
Orchard Series	55 to 75 hp	\$48,230 to \$78,037
TND/S Series	55 to 75 hp	\$49,630 to \$74,905
TL Series	80 to 100 hp	\$63,260 to \$89,570
90 Series		\$84,270
66 Series		\$55,992
High Hp Tractors:		
TS Series – 4WD	90.4 to 115.6 hp	\$73,706 to \$108,788
M/60 Series – 4WD, Cab	100 to 160 hp	\$111,074 to \$158,945

Power Farming

<i>Belarus:</i> 100 hp 4WD		\$44,900
<i>Daedong:</i>		
31 to 50 hp 4WD		\$29,990 to \$46,990
51 to 70 hp 4WD		\$39,990 to \$56,990
71 to 100 hp 4WD		\$49,990 to \$66,990
<i>Iseki:</i>		
5 to 30 hp 4WD		\$13,990 to \$24,990
31 to 50 hp 4WD		\$39,990 to \$56,990
<i>Landini:</i>	2WD	4WD
41 to 70 hp	\$33,500 to \$61,900	\$35,500 to \$68,500
71 to 100 hp	\$46,900 to \$68,500	\$49,500 to \$90,900
Over 100 hp		\$95,900 to \$144,900
<i>McCormick:</i>		
81 to 100 hp 4WD		\$68,500 to \$86,900
Over 100 hp 4WD		\$92,900 to \$167,500
<i>Renault</i>		
71 to 100 hp 4WD		\$84,900 to \$89,900
Over 100 hp 4WD		\$94,900 to \$239,900

Case: (W.H. Cochrane and Co Ltd.)

	hp	
2140 R/4/N or C/4/N (Vineyard)	64	\$53,450 to \$66,300
2150 R/4/N or C/4/N (Vineyard)	75	\$58,000 to \$69,500
CX50*	50	\$44,780 to \$52,600
CX60*	60	\$57,500 to \$69,300
CX70*	70	\$62,000 to \$75,800
CX80*	80	\$70,700 to \$81,980
CX90*	90	\$77,900 to \$88,900
CX100*	100	\$96.850
MX80C/MX90	80/90	\$94,300/\$102,000
MX100C/MX100	100	\$109,000/\$121,600
MX110/MX120	110/120	\$128,000/\$137,400
MX135/MX150	135/150	\$146,300/\$159,300
MX170/MX180	170/201	\$171,650/\$183,300
MX200/MX220	217/240	\$194,800/\$205,200

MX240/MX270	267/302	\$225,200/\$238,800
CVX 120/CVX 170	130/170	\$151,620/\$185,000

* price is determined by 2 or 4-W.D., ROPS protection or cabin with air conditioning.

John Deere:

Model	2WD	4WD
5000 Series 53 to 89 hp	\$33,634 to \$65,660	\$42,490 to \$82,491
6010SE Series 80 to 115 hp	\$80,675 to \$101,283	\$86,781 to \$119,705
6020 Series 80 to 150 hp	-	\$104,168 to \$171,735
7010 Series 115 to 175 hp	-	\$133,000 to \$211,000
8020 Series 190 to 300 hp	-	\$205,000 to \$300,000

Challenger Tractors: (Gough Gough and Hammer)

Machine	Operating weight (kg)		Price
Caterpillar CH35	10 to 12,000	131 (PTO)112 Draw bar	\$235,000
Caterpillar CH45	10 to 12,000	149 (PTO)127 Draw bar	\$250,000
Caterpillar CH55	10 to 12,000	168 (PTO)142 Draw bar	\$280,000

2.20.4 Farm Bikes, Bike Trailers and Accessories.

Honda:

ATVs:				
TRX500FA	4 x 4	499cc	Fully automatic hydromechanical, continuously variable with electronic controls	\$17,500
TRX450FM	4 x 4	433cc	5 speed and reverse	\$14,929
TRX350FE	4 x 4	329cc	ESP 5 speed and reverse	\$13,773
TRX350FM	4 x 4	329cc	5 speed and reverse	\$13,684
TRX350TE	4 x 2	329cc	ESP 5 speed and reverse	\$12,351
TRX350TM	4 x 2	329cc	5 speed and reverse	\$12,262
TRX250TM	4 x 2	229cc	5 speed and reverse	\$9,329
Motor Cycles:				
XR250	2 wheeler	249cc	6 speed	\$8,884
XR200	2 wheeler	195cc	6 speed	\$5,951
XLR125	2 wheeler	124cc	5 speed	\$3,818
CT200	2 wheeler	192cc	5 speed	\$5,773
CT110	2 wheeler	105cc	4 speed	\$4,618

Kawasaki: (Norjo Motors Ltd.)

ATVs:		
KLF 250	2 x 4	\$8,848
KLF 300B/ KLF 300C	2 x 4/4 x 4	\$10,559/\$11,999
KVF300 Prairie	2 x 4/4 x 4	\$9,717/\$11,554
KVF360	4 x 4	\$13,727
KVF400/KVF650A Prairie	4 x 4	\$14,213/\$16,888

KAF300 Mule 550	2 x 4	\$13,652
KAF620E Mule 2500	4 x 4	\$20,880
KAF620A Mule 2510 Diesel	4 x 4	\$23,378
2 Wheelers:		
XRX125/ KLX110	4 Stroke	\$4,440/\$4,444
KL250	Stockman	\$7,999
KLX250	Electric Start	\$8,888

Suzuki: (Eric Wood Motorcycles)

2 Wheeler DF 200E Trojan		\$6,044
2 Wheeler TF 125X Mudbug		\$3,911
DR 250kw Dual purpose		\$9,329
4 Wheeler LTF 160 Quadrunner		\$6,218
4 Wheeler LTF 300X King Quad 2 x 4		\$8,884
4 Wheeler LTF 4WD King Quad 300		\$12,000

Suzuki New Zealand:

TF125 Mudbug	2 wheeler	123cc	6 speed	\$3,733
DF200E Trojan	2 wheeler	199cc	5 speed	\$6,044
DR-Z250	2 wheeler	249cc	6 speed	\$9,329
LT-F300 King Quad	4 x 4	280cc	5 speed + reverse	\$12,000
Eiger range	4 x 2	376cc	Auto/5 spd+reverse	\$11,551 to \$13,773
LT-A500F Vinson	4 x 4	493cc	Auto	\$15,110
LT-F500F Quadrunner	4 x 4	493cc	5 speed + reverse	\$14,484

Yamaha:

2 Wheeler	- AG100L	\$4,895
	- AG200EL (electric)	\$6,995
	- XT250L	\$7,495
4 Wheeler	- Bear Tracker 2 x 4 (250cc)	\$9,995
	- Big Bear 4 x 4 (400cc)	\$13,995
	- Kodiak 2 x 4 (400cc) Auto / 4 x 4 (400cc) Auto	\$13,495 /\$15,495
	- Grizzly 4 x 4 (660cc) Automatic	\$16,995

Farm Bike Trailers

Smith Attachments: (4 standard sizes available, also made to order)

1200 x 900mm	- Trailer – ply deck/ mesh deck	\$878/\$987
	- Stock crate	\$346
1500 x 1100mm	- Trailer – ply deck/ mesh deck	\$949/\$1,082
	- Stock crate – sliding door/swing doors	\$387/\$443
	- Hay trailer - ply deck/ mesh deck	\$1,108/\$1,247
	- Hay trailer stock crate – sliding door/ swing doors	\$282/\$338
1800 x 1200 mm	- Trailer – ply deck/ mesh deck	\$1,118/\$1,294
	- Stock crate - sliding door/swing doors	\$471

All trailers have ATV wheels, ball coupling, hot-dip galvanised, freight paid.

Farm Bike Accessories

Smith Attachments Ltd:

ATV Accessories (Honda, Suzuki, Yamaha, Kawasaki, Polaris):		Motorcycle Accessories	
Bullbar kits	from \$242	Carriers	from \$92
Rollbars	from \$206	Handlebar protectors	\$62
Mudflap kits	from \$64	Towbars	from \$118

2.20.5 Mowers and Toppers

C.B. Norwood:

Drum Mowers:			
CM150	1.65m	2 drum	\$6,995
CM1900	1.90m	2 drum	\$8,995
CM2250	2.25m	2 drum	\$11,995
CM2650	2.65m	4 drum	\$14,995
CM2650C Conditioner	2.8m	4 drum	\$19,990

SB Disc Mowers:			
SB2000	2.0m	5 disk	\$10,495
SB2400	2.4m	6 disk	\$11,795
SB2800	2.8m	7 disk	\$12,995
GX-SB Disc Mowers:			
GX2800SB	2.8m	7 disc	\$14,995
GX3200SB	3.15m	8 disc	\$16,950

Giltrap Engineering: (Prices include freight in North Island only)

Grass Toppers:		
TM 1200	3 blade topper - 1.20m cut	\$2,260
TM 1500	4 blade topper - 1.50m cut	\$3,350
TM 1500 HS	2 blade Hi-Speed topper - 1.50m cut	\$3,090
TM 2300	Twin rotor 4 blade topper - 2.30m cut	\$6,800
TM 3000	Twin rotor 4 blade topper - 3.0m cut (fixed one piece body)	\$7,750
Orchard / Park Mowers:		
MOW 1800 / 2100	- no roller - 1.80m / 2.10 m cut	\$7,450/\$7,550
MOW 2300 / 2500	- no roller - 2.30m / 2.5 m cut	\$7,700/\$7,850
MOW 2700	- no roller - 2.70m cut	\$8,000

Kuhn:(D. Cosgrove Ltd)

Kuhn Multidisc mowers – 2.0 m to 3.1 m			
GMD 66 Select			\$11,900
GMD 500			\$12,220
GMD 600/700/800 GII		\$14,130/\$15,465/\$17,850	
GMD 602			\$16,835
GMD 702/702F		\$18,575/\$26,360	
GMD 801/802		\$21,400/\$23,155	

Claas: (Landpower NZ Ltd)

Disco Mowers (6 to 8 disc)	2.45m to 3.4m	\$11,990 to \$18,990
Disco Mower Conditioners (6 or 7 disc)	2.6m to 3.0m	\$23,500 to 25,500
Disco Trailed Mower Conditioners	3.0m	\$39,500 to \$53,500
Disco Trailed Mower Roller Conditioner	3.0m	\$45,500
Disco Front Mounted Mower Conditioner	3.0m	\$27,500
Disco Mower Conditioners (2 to 8 mower units)	8.5m	\$62,000 to \$119,000
Jaguar 8500C Self Propelled Mower	8.5m	\$370,000

Kverneland: (European Tractors & Machinery)

TA 2020	Disc Mower 2.0 m cut	\$11,800
TA 2024	Disc Mower 2.4 m cut	\$12,800
TA 2028	Disc Mower 2.8 m cut	\$13,800
TA2128	Disc Mower 2.8 m direct drive	\$15,700
TA2132	Disc Mower 3.2 m direct drive	\$17,700

Trimax:

Flail Mowers	Cutting Width	Standard
Ezeemow (Orchard and Parks)	1.16 to 1.83 m	\$4,200 to \$5,740
Mulch Masta (Orchard)	1.55 to 2.16 m	\$7,610 to \$8,585
Warlord		
Orchard and Parks	1.44 to 2.34 m	\$7,610 to \$9,350
Roadside Contractors	1.44 to 2.34 m	\$7,875 to \$9,350
Topper/Stubble Mulcher	1.44 to 2.34 m	\$7,875 to \$9,350
FlailDek (Parks)	1.36 to 1.52 m	\$5,620 to \$6,020
Rotary Mowers		
Pegasus (wide area)	4.93 m	\$39,850
Stealth wing mower (parks)	3.4 m	\$11,950 to \$15,540
Procut (orchard and parks)	1.38 to 3m single roller	\$4,660 to \$8,970
	1.38 to 3m double roller	\$5,210 to \$9,520
Topper	1.74 to 3.00m	\$6,010 to \$8,510

Tulloch:

Krone AM 323S 3.2 m rear disc mounted hay mower	\$15,600
Krone AM 283S 2.8 m rear disc mounted hay mower	\$13,950
Krone AM 243S 2.4 m rear disc mounted hay mower	\$11,950
Krone BIG M self propelled mower	\$399,384

Vicon: (European Tractors & Machinery)

VI CM 2200H	2.15 m disc mower, six 3 blade discs	\$11,900
VI CM 2400H	2.4 m disc mower, six 3 blade discs	\$12,700
VI DMP 2800	2.8 m disc mower, eight 3 blade discs	\$15,850
VI DMP 3200	3.2 m disc mower, eight 3 blade discs	\$17,850

Mow King: (Fairbrother)

Rotary Slasher:			Weight	Price
MK 1200	18-30hp	1.20m cutting width, single spindle	190kg	\$1,795
MK 1500	30-70hp	1.5m cutting width, single spindle	240kg	\$2,595

Vicon /PZ: (European Tractors & Machinery)

Drum Mowers:				
PZ CM 168	1.65m	2 drum	30 hp	\$7,990
PZ CM 188	1.85m	2 drum	35 hp	\$8,990
PZ CM 218	2.10	2 drum	40 hp	\$10,990
PZ CM 268	2.65m	4 drum	55 hp	\$13,990
PZ CM 190	1.86m	2 drum	35 hp	\$10,500
PZ CM 230	2.3m	2 drum	45 hp	\$14,500
PZ CM 260	2.6m	4 drum	50 hp	\$16,990

Mower Conditioners*C.B. Norwood:*

Trailed Drum Mower Conditioner:			
CMT2800 Mower c/w conditioner	2.8m	3 drum	\$29,985
Mounted Disc Mower Conditioners – Finger:			
GX2800SM Rear Mounted	2.8m	7 disc	\$22,995
GX3200SM Rear Mounted	3.15m	8 disc	\$24,985
GX2800FM Rear Mounted	2.8m	7 disc	\$25,850
Top Safe Trailed Disc Mower Conditioners – Finger:			
GMS2800	2.8m	7 disc	\$38,795
GMS3200	3.15m	8 disc	\$42,895
GMS3200 Flex (Centre Pivot)	3.15m	8 disc	\$49,550

New Holland: (C.B. Norwood)

1411 Mower Conditioner	\$43,814
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Kuhn: (Dan Cosgrove Ltd.)

Trailed and mounted mower conditioners	
FC 280 P	\$26,185
FC 280 F complete with A-frame	\$30,690
FC 283	\$28,555
FC 313	\$35,925
FC 302 G/FC 302 RG traileed	\$44,785/\$47,090
FC 303 GC	\$61,285
FC 352 G traileed	\$45,925
Alterna 400/Alterna 500	\$97,180/\$102,540
Alterna 500R	\$114,130
FC 500 Alterna traileed	\$90,155

Tulloch:

Gehl DC 2365-2418 – mower conditioners	\$48,300 to \$108,460
Krone AMT323CV/Cri – trailed mower conditioner – 3.2 m	\$37,650
Krone AMT283CV/Cri – trailed mower conditioner – 2.8 m	\$35,330
Krone AM283CV – rear disc mounted mower with conditioner – 2.8 m	\$21,950
Krone AMT 4000-5000 CV – trailed mower conditioners	\$63,370 to \$86,060

John Deere:

1365 Mower Conditioner	\$42,400
Grouper	\$16,500

Kverneland: (European Tractors & Machinery)

TA 4028	Mower / Conditioner, 7 Disc, 2.8 m	\$39,990
TA 4032	Mower / Conditioner, 8 disc, 3.2 m	\$41,990

Vicon: (European Tractors & Machinery)

Disc Mower Conditioner, 3 point link and trailing:			
VI KMT/KMR 3000	3 m cut	80 hp	\$41,990/\$45,990
Drum Mower Conditioners:			
PZ CM300ATK/ PZ CM300ATKCP	3 m cut	85 hp	\$41,990/\$43,990
PZ CM300ATKCP - "Auto Swather"	3 m cut	100 hp	\$54,990

Toppers/Slashers*Vicon /PZ: (European Tractors & Machinery)*

Retro Fit conditioners for drum mowers:	
TK models (finger type conditioner)	\$5,500 to \$6,500

2.20.6 Hay Making Equipment**Hay Rakes and Tedders***B.S. Taege:*

Line Rakes	8 reel	\$8,800
	13 reel	\$11,800

C.B. Norwood:

Rotary Tedders:			
550DH	5.5m	4 rotor	\$10,995
Z585 Pro	5.8m	4 rotor	\$13,450
Z685 Pro	6.9m	6 rotor	\$17,895
Z765 Pro	7.6m	6 rotor	\$19,985
Single Rotor Rakes:			
RS340X	3.4m	1 rotor	\$4,995
RS420X	4.2m	1 rotor	\$6,995
Drive 465-4DS Pro	4.45m	1 rotor	\$13,945

Twin Rotor Tedder Rake:			
CRS400	4.0m	2 rotor	\$10,995
Double Swather Rotor Rakes:			
R655 Ds (mounted)	6.2 to 6.6m	2 rotor	\$19,890
Drive R655 AS (trailed)	6.2 to 6.6m	2 rotor	\$22,995
Drive 782H (trailed and steering)	6.8 to 7.4m	2 rotor	\$34,950
Drive 1800S (trailed side rake)	8.2 to 15m	2 rotor	\$34,950

New Holland: (C.B. Norwood)

255 Rotary Rake	\$9,205
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Kuhn: (Dan Cosgrove Ltd)

Kuhn Gyrotedders	
GF 4000 M/GF 5000 M	\$8,720/\$10,380
GF 5000 T	\$10,115
GF 5001 TH / GF 5001 MH	\$10,245 / \$12,720
GF 6301 MH/GF 6401 MH	\$17,095/\$19,645
GF 6401 T	\$24,175
GF 7501 MH/GF 7601 MH	\$21,195/\$25,565
GF 8501 TO	\$36,675
Kuhn Gyorakes	
GA 300 GM with/without bogie wheels	\$7,880/\$6,895
GA 4121 GM with/without bogie wheels	\$12,970/\$11,880
GA 4521 GM	\$19,700
GA 6000 with/without bogie wheels	\$30,845/\$28,285
GA 6002 with/without bogie wheels	\$32,420/\$29,865
GA 7301 GM with/without bogie wheels	\$36,500/\$34,320
GA 7301 with 3D kit	\$37,875
3D kit only	\$3,555
Bogie Kit (GA 300)	\$980
Bogie Kit (GA 4121 and GA 7301)	\$1,090
Bogie Kit (GA 6000)	\$2,555

Kverneland: (European Tractors & Machinery)

TA 8055	5.5 m tedder	\$14,490
TA 9142	4.2 m single rotor rake	\$14,990
TA 9146	4.6 m single rotor rake	\$16,990

PZ: (European Tractors & Machinery)

Combination Rakes and Tedders:			
PZ HAYBOB300	3.0 m, Centre	15 hp	\$6,500
PZ HS360	3.6 m, Side	20 hp	\$9,750
Single Rotor Rakes:			
PZ ANDEX423 / PZ ANDEX463	4.2 m / 4.6 m		\$14,990/\$16,990
Rotary Tedders:			
PZ FANEX500DH	5.0 m	20 hp	\$13,500

Tulloch:

Fransgard TI-4000 – 6000 mounted or trailed hay rake	\$13,990 to \$22,900
Fransgard RV390 universal hay rake	\$10,250
Krone Swadro trailed windrowers	\$39,570 to \$98,290
Krone KW-550 - 850 mounted or trailed rotary tedders	\$16,550 to \$37,070

Big Balers - Round*Dan Cosgrove Ltd:*

Feraboli Balers -	
Sprinter 165 Ultracut round baler – variable chamber	\$61,000
Sprinter 165 Topcut round baler – variable chamber	\$56,200
Trotter 125 Ultracut round baler – fixed chamber	\$59,170
Trotter 125 Topcut round baler – fixed chamber	\$53,780

John Deere:

590 Baler	\$49,079
590 Baler Precutter Net Wrapping	\$67,886

Tulloch:

Gehl RB2580 SS Round baler	\$63,210
Krone VP1500-1800 Round balers	\$58,470 to \$72,810
Krone Round Pack 1250 MC	\$58,520
Krone Combi Pack 1500 MC	\$115,050

New Holland: (C.B. Norwood)

Roll – Belt Balers	from \$52,633
Fixed Chamber Round Baler	\$59,885

Landpower NZ Ltd:

R 66	Rollant Baler	\$54,600
R 250RC	Rollant 250 Rotocut	\$59,500
V180	Variant Rotofeed Baler	\$55,900
V180RC	Variant Rotocut Cut Baler	\$67,900

Big Balers - Square*New Holland: (C.B. Norwood)*

D710S / D710S / D1010C	\$96,940 / \$107,778 / \$149,375
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Case: (W.H. Cochrane and Co Ltd)

31" x 34" Rectangular (8575)	\$146,000
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Claas: (Landpower NZ Ltd)

Quadrant 1150	Medium square baler	\$116,500
Quadrant 1150RC	Rotocut medium square baler	\$137,500
Quadrant 2200RC	Rotocut large square baler	\$198,500

Tulloch:

Krone Big Pack 80/80 baler	from \$139,800
Krone Big Pack 120/80 baler	from \$150,759

Vicon: (European Tractors & Machinery)

Variable Chamber Balers:			
VI-RV1601OC	1.2 x 1.6 m "opticat"	70hp	\$63,990
VI-RV1901R	1.2 x 1.9 m with "Rotorfeed"	90hp	\$59,990
VI-RV1901OC	1.2 x 1.9 m with "opticat"	100hp	\$66,990
Fixed Chamber Balers:			
VI-RF 122LOC(NET)	1.25x1.22m plus twintwine/netwrap/opticat	75 hp	\$53,990
VI-RF 130LOC(NET)	as above plus autoform	60 hp	\$66,990

Conventional Balers*Claas: (Landpower N.Z. Ltd.)*

M65Markant - Conventional Baler 65	\$37,500
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New Holland: (C.B. Norwood)

570 Conventional Baler	\$37,100
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Tulloch:

SB 3250 Conventional Baler 6'3" pickup, 14" x 18" bale size	\$32,800
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Case: (W.H. Cochrane and Co. Ltd)

14" x 18" (8545)	\$37,200
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Bale Wrappers*Taupo Engineering: (North Island prices including freight)*

DML model BW2 balage wrapper - ground roll wrapper (towable type)	\$5,320
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Tanco: (C.B. Norwood)

Series 580S round bale wrapper	\$26,995
Series 580A round bale wrapper	\$32,450
1080A square and round bale wrapper	\$43,980
1080ATP square and round bale wrapper	\$46,995

Tulloch:

Pronovost P-6300E round bale silage tubing machine	\$35,600
Pronovost P-6400 square bale silage tubing machine	\$69,200
Pronovost P-6808 automatic round bale handler	\$P.O.A.
Elho 1410F2 trailed bale wrapper	\$46,000

Baling Twine*Balewrap Systems:*

Heavy 2000m small (x2) or Standard 2400 m (x2)	\$69.00
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Hay Handling Equipment

Stockyards Inc: (ex Te Kauwhata)

SQUARY Bale Feeders

Big square balefeeder for quad bikes (with stock crate)	\$3,800 (\$4,250)
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Quinn-Baleboy's Ltd:

Big Bale Clamp - 3pt linkage models	\$1,950/\$2050
Feeding out Cones - for hard centre bales	\$250
Tipping Rails	\$250
Clamp Gates - round/square	\$400
F.E.L. Frame	\$350
Big Bale Spikes - includes removable tines	\$850
Big Bale Tine - including sleeve	\$160
Silage Forks 5 tine/6 tine/7 tine forks complete	\$900/\$950/\$1,000

Taupo Engineering: (North Island prices including freight)

Single Bale Side Feeders:

FM1200 3P/SSF	Sidefeeder 3 point forks (1,600 kg capacity)	\$5,900
FM1250 3P/SSF	Double sidefeeder 3 point forks (1,600 kg capacity)	\$6,610
FM-SIDE	Side delivery extension	\$750

Multi Bale Feeders:

SF 1202-T	Heavy duty 2 bale side feeder and transporter type	\$9,350
SF 1203-T	Heavy duty 3 bale side feeder and transporter type	\$9,880
SF 1250-D	Heavy duty 2 bale double side feeder	\$9,960
SF 1253-D	Heavy duty 3 bale double side feeder	\$10,480

DML 3 Point Linkage Bale Forks:

3P-SSF	Heavy duty – 1,600 kg capacity (spear type)	\$1,070
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DML Front End Loader Forks:

FE-SSF	Heavy duty 1,600 kg capacity (spear type)	\$1,146
CF160	Silabale dual purpose forks	\$2,570

Clough Group: Balefeeders

3 point linkage	\$6,940
2 Bale trailing – standard wheels / wide wheels	\$10,800 / \$11,300

Giltrap Engineering: (Prices include freight in North Island only)

GDM 10/GDM 14 Mix Max diet feeder	\$58,000/\$63,800
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2.20.7 Spray Equipment

AgMark:

Orchard:		
D026-40	200 litre Suntuff c/w fan and MP40 pump	\$5,925
D058-96	500 litre Suntuff c/w 800 fan and APS96 pump	\$8,295
M209-141S	Maxi Blast 200 litre trailed airblast	\$16,395
GTM-P424	Turbomiser 400 litre, linkage sprayer	\$9,495

GTM-P506	Turbomiser 600 litre, linkage sprayer	\$11,495
GTM-P55D6	Turbomiser 600 litre linkage sprayer	\$12,995
GTM P5010G2	Turbogrape 1000 litre trailed sprayer	\$33,595
GTM P555D20G2	Turbogrape 2000 litre trailed sprayer	\$35,595
GTM P55D20G-3R	Turbogrape 2000 litre trailed sprayer	\$39,595
Strip Spraying System	400mm/800mm shielded spray dome	\$780/\$845
Sprayers:		
KB-600-41	Pastureland Pak 600 litre c/w CAPS41 pump	\$4,375
KB-800-48	Pastureland Pak 800 litre c/w P48 pump	\$5,045
SP-600-48	Spray Pak 600 litre c/w P48 pump	\$4,145
EP-600	Ecopak 600 litre c/w petrol engine	\$2,695
SL-200	Sledpak 200 litre c/w petrol engine	\$1,695
Booms:		
Agri-06	6 m Pasture Boom (horizontal fold)	\$795
033-C6	6 m Combi Boom (horizontal fold)	\$1,195
Mec-18	18 m Mec Boom 5 section hydraulic fold.	\$10,950
Monitors:		
1100	Farmscan Hectare Metre	\$675
2200	Farmscan surveillance monitor c/w wheel sensor	\$1,355
1400	Farmscan Litremetre	\$675
1500	Farmscan Bazooka Batchmetre	\$950
1800	Farmscan Farm Alarm	\$280
2300HP	Farmscan Spray Monitor	\$2,150
2400DC-HP	Farmscan Spray Controller	\$3,350
General:		
UP20/UP50	20 litre /50 litre 12 volt sprayer	\$399/\$549
UP100/UP200	100 litre/200 litre 12 volt sprayer	\$699/\$789
CW-1 CW-2	Cheesco weed wiper, mounted/trailed	\$895/\$1,615

Croplands Equipment Ltd:

Agripak series - Linkage Sprayers		
Agpak 500	Complete package, 500 litre linkage sprayer, AR70 pump, 6 m boom, hose reel c/w 30 m 10 mm hose and turbo 400 pistol	\$3,716
Agpak 700	Complete as above with 700 l linkage sprayer and 10 m boom.	\$4,728
ATM Series	500 litre linkage sprayer with 6 to 10 metre boom	\$3,394 - \$4,210
Cropmate Series, for smaller tractors		
ATM 3P Series	300 litre linkage sprayer AR19 pump, 3 - 4 m boom	\$2,762 -\$2,794
Ute Pak Series - non motorised		
UP 30 – UP 200	35 litre / 200 litre, 12 volt ute pack	\$383/\$1,073
Ute Pak Series – motorised		
UP 200 19 PE	200 litre, 4.0 hp petrol	\$3,438
UP 450 - UP 550-30 PE	450 to 550 litre, 5.5 hp petrol	\$4,331 to \$4,469
Utility Trailed sprayers		
UT 200-12v/UT 200-19 PE	200 litre 12 v pump, 4 m boom/200 l AR 19	\$3,094
ATV Bike sprayer		
CP 70 series	70 litre tank, 12 volt pump c/w reg kit, 6 m hose, adjustable lance, 3/4 metre boom	\$1,444 to \$1,472

Foam marking systems:		
ARAG &RHS	Pressure marking system single/double side 12 metre hose and droppers	\$1,344 to \$3,313
Polyethylene tanks		
	30 litre foam tank	\$280
	70 litre bike tank	\$237
	120 to 450 litre tanks	\$268 to \$618
	500 to 900 litre three point linkage tanks	\$715 to \$895
	1000 to 2000 litre tanks	\$1,543 to \$3,369
Linkage booms		
CFB Series	3 m to 12 m boom, 6 to 20 nozzles	\$537 to \$2,263
	12 metre Hydralink boom, 24 nozzles, self levelling	\$9,130

Ag Equipment Specialists (AES):

Sprayers – Motorised		
AES Petrol powered	17 to 33 litres per minute	\$2,145 to \$2,885
Spraying Accessories		
Spray Booms	4.5 and 6 m complete with nozzles	\$495 to \$749
Hose Reels	100 mm and 150 mm	\$245 to \$255
Spray Hose	10 mm ID	\$3.15 per m
Spray Guns		\$110 to \$115

Hardi Spraying Equipment:

Sprayer for 4 wheeled motor bikes,	70 /100 litre capacity	\$695/\$825
Three point linkage sprayer:		
400 litre tank, 6 metre boom, pump to suit		\$3,091
plus hosereel and spraygun		\$3,686
800 litre tank 10 metre boom, pump to suit		\$4,873
plus hosereel and spraygun		\$5,545
Precision sprayer 600 litre tank, 10 metre boom		\$5,791
Very Accurate and Safe Sprayer (three point linkage):		
800 to 1200 litre tank, 12 to 24 metre boom, remote controlled		\$14,395 to \$87,000
from tractor cabin (electric and hydraulic controls)		
Trailer Sprayers:		
1500 litre, 2400 litre, 3500 litre, 12 to 24 metre boom		\$36,000 to \$65,000
Orchard Sprayers – Pip Fruit:		
2000 litre trailer with an 800 to 900 mm fan		\$22,000 to \$40,000
ISO Nozzles, Syntal, Ceramic, LD, Air Inclusion		\$3.75 to \$20.00
Spray Monitors		from \$2,200

Amazone: (Landpower NZ Ltd)

UG2200	Trailed sprayer with 24 m Super S boom	\$58,000
UG3000	Trailed sprayer with 24 m Super S boom	\$65,000
UF1200	3 Point linkage sprayer with Super S boom	\$38,000

Handgun Sprayers/Wet Booms

Ag Equipment Specialists:

Hurricane Spray Pack, including 250/500 litre spray tank, tractor driven, 17 to 75 litres per minute, hose and gun	\$2,180 to \$3,150
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C-DAX Systems Ltd.:

ATV Mounted, Deck Mounted and Trailed Sprayers

ATV Mounted Sprayers, comes complete with 10 m of 8.5mm hose, handgun, on/off switch, 12 volt pump, wiring loom, tie-down straps and hose clips.	
45/60/100 litre front/front or rear/rear mount	\$865/\$880/\$945
Additional front or rear tanks 45 litre to 100 litre	\$355 to \$430
Pressure Nozzle Booms for ATV's:	
Wet Booms - 2 m or 3 m	\$275 to \$375
- Budget Boom 4.5m	\$360 to \$545
Vertical fold booms - 3 m – 6 m, complete with breakaway	\$455 to \$970
- Quick-Smart Vertical Fold Boom	\$645 to \$990

CDA Booms for ATV's:

Low Volume CDA Boom	\$1,245 to \$2,805
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Two CDA to Four CDA atomiser boom 3.6 m to 7.2 m coverage

Weed Wiper:

ATV trailed 'Eliminator' weed wiper with electronic control 2.35m coverage	\$1,425
Auxillary left hand ganged eliminator 4.7m coverage. Elimaux1	\$1,475
Auxillary right hand ganged eliminator 7m coverage. Elimaux2	\$1,245

Deck or Trailed sprayers, include 10 m hose and gun, spot spray. 12 volt Pump:

U200 spot sprayers – 200 litre, deck/trailed, 12 volt	\$1,070 to \$2,300
400 litre spot sprayer, deck/trailed	\$3,200 to \$5,095
Conversion Kits – deck mounted to trailed	\$970 to \$1,195

Engine Driven Deck or Trailed sprayers with Hose Reel and Gun:

U200 (E)	\$3,295 to \$5,095
400 litre	\$1,560 to \$5,195

Deck or trailed boom sprayers, includes 4-6m vertical fold boom, 200 & 400 litre tank:

12v electric pump pressure nozzle boom sprayers - deck mounted	\$1,660 to \$2,565
- trailed (Smooth, turf tyres)	\$2,585 to \$3,500

Deck or Trailed CDA boom sprayers, includes 5.4 to 7.2m boom, 200 & 400 litre tank:

12v Electric pump CDA boom sprayers - deck mount	\$3,280 to \$4,575
- trailed (Knobbly turf tyres)	\$4,380 to \$5,495

Accessories

Hose Reels, 25 m to 100 m, manual wind	\$185 to \$325
Hose 580 psi - 8.5 mm/10mm/13 mm	\$2.70/\$4.15/\$5.30 per m
- 19.0 mm/25mm, 580 psi	\$10.20 \$22.55 per m

Spray Guns, Lance style/Pistol style

\$87 to \$155

Foam Markers, single foam

\$870

12 volt Pump Spray Controller:

Rate Rite ATV Spray Controller	\$950
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Knapsack Sprayers

Ag Equipment Specialists Ltd.:

AES OMR16 Knapsack Sprayer	16 litre	\$135
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Croplands Equipment Ltd.:

Plastic Knapsack	15 litre	\$240.00
Pump up sprayers	3 litre/6 litre	\$81.00/\$94.00

White Star Products:

“Fynspray” High Pressure Brass Knapsack	\$410.70
“Fynspray” Plastic Knapsack Sprayer	\$222.20

Greenhouse Sprayers

Kanters Engineering & Machinery Ltd.:

Low Volume Mist Sprayer	- fully automatic	\$3,750
	- deluxe model, pneumatic adjustable height	\$4,250

Hand Held Sprayers

C-Dax Systems Ltd.:

Low Volume Hand Held Sprayers:	
6 volt low volume CDA Sprayer, 1.2m to 2.4m spray width	\$235 to \$655
6 volt low volume CDA Band Sprayer, 0.1m to 0.5m spray width	\$495

White Star Products:

Fynspray Spray Pumps:	
Orbit Double Action Pump	\$53.53
Sprite Double Action Pump	\$79.64
Jerry Can Conversion Kit	\$22.28
Mid-Jet Double Action 1.5 litre Pump	\$55.53
5 litre Pressure Sprayer	\$75.00
Master 5 litre Pressure Sprayer	\$105.07

Trolley Sprayers

Bertolini Australasia:

Model	Description	Price
WB 200	200 litre trolley sprayer – bare	\$1,517
WB 200 - 20SR	200 litre c/w 20SR electric pump 20 lpm / 286 psi	\$3,339
WB 200 - 25SR	200 litre c/w 25SR pump, 2.5hp engine, 25 lpm / 286 psi	\$4,074
WB 200 - PA330E	200 litre c/w PA330 electric pump 20 lpm / 600 psi	\$4,185
WB 200 - PA330D	200 litre c/w PA330 pump, 4hp engine, 30 lpm / 600 psi	\$4,641

Wheelbarrow Sprayers

Bertolini Australasia:

Model	Description	Price
WB 100	100 litre wheelbarrow sprayer – bare	\$835
WB 100 - FJ	100 litre c/w 12v shurflow pump 5.3 lpm / 60 psi	\$1,570

WB 100 - 20SR	100 litre c/w 20SR electric pump 20 lpm / 286 psi	\$2,258
WB 100 - 25SR	100 litre c/w 25SR pump 25 lpm / 286 psi petrol engine	\$2,935
BA 120M-30-43	Hose reel to suit WB 100 models c/w 30m hose & spray gun	\$604

2.20.8 Tractor Transport Trays

Giltrap Engineering: (Prices include freight in North Island only)

Speedy Hitch Transport Trays	Tray only	Complete
1.98 m x 1.22 m	\$1,040	\$1,370
2.13 m x 1.37 m	\$1,065	\$1,395

2.20.9 Frontend Loaders/Forklifts

Mailleux: (C.B. Norwood)

Front end loaders all complete with twin crowd, rams, bucket		
MX 60		\$13,245
MX 80		\$13,765 to \$14,255
MX 100		\$14,360 to \$14,995
MX 120		\$15,695 to \$16,325

Pearson Engineering Ltd.:

Front-end Loaders	Bucket Size	Price
Natty	1.2 m x 0.9 m	\$7,195
2005	1.2 m x 0.9 m	\$7,090
2405/2708	1.2 m x 1.0 m	\$7,300/\$7,770
WL3111	1.2 m x 1.2 m	\$8,505
WL3218	1.5 m x 1.3 m	\$10,080 to \$11,760
WL3518	1.5 m x 1.3 m	\$10,185 to \$11,865
Front-end Loaders 20 Series		
20-31	1.5 m x 1.3 m	\$10,265 to \$11,420
20-34	1.5 m x 1.3 m	\$11,710 to \$12,865
20-36	1.8 m x 1.3 m	\$11,970 to \$13,125
20-39	2.1 m x 1.3 m	\$12,390 to \$13,545
20-42	2.1 m x 1.5 m	\$13,650 to \$14,805
20-46sl (self level only)	2.1 m x 1.5 m	\$18,900 to \$20,055
Front-end Loader Buckets and Implements:		
Buckets	1.2m wide x .9m shell to 2.1m wide x 1.7m shell	\$735 to \$1,680
4 in 1 Buckets	1.2 m to 1.8 m wide	\$3,885 to \$4,830
Auger Bucket	1.2 cubic metre capacity	\$7,035
Fine Chop Silage Teeth for Buckets	1.2 m to 2.1 m wide	\$400 to \$650
Implement Back Plates	Single or twin crowd	\$150
Manual Quick Hitch		\$925
Silage Forks	1.2 m to 1.8 m wide, 6 to 11 tine	\$1,100 to \$1,950
Big Bale/Silage Combo Fork	- 1.2 m to 1.5 m wide, 7 or 9 tine	\$1,625/\$2,100

Big Bale Fork	1.2 m wide, 2 tine	\$1,050
Pallet Fork, Fixed/Adjustable	1000 kg/1500 kg	\$970 to \$2,310
Log Fork, Standard	1.5 m (700 mm tines)	\$1,260 to \$2,520
Silage Grab	1.2 m to 1.5 m wide, 7 to 11 tine	\$2,835 to \$4,160
Silage Shear Grab	1.2m wide, .62m ³ to 1.76m wide, .90m ³	\$5,000 to \$6,300
Wrapped bale clamp	Standard/standard plus heavy duty arms	\$2,310 to \$2,468
Bull Blade	1.8 m wide/2.1 m wide	\$1,100/\$1,250
Bull Blade/Root Rake	1.8 m wide/2.1 m wide	\$1,600/\$1,675
Hose Kit for top link ram		\$90

Landpower NZ Ltd:

J.C.B Loadalls (Telescopic Handlers)			
526 'S'	4WD	4WS	\$110,000
530-70	4WD	4WS	\$123,750

Telehandlers: (Gough, Gough and Hamer Ltd.)

	Machine	Operating weight (kg)	Engine	HP/RPM kW/RPM	Price
Caterpillar	TH62	6840	Cat 3054	60/81 (Turbo)	\$135,000
Caterpillar	TH82	7470	Cat 3054	60/81 (Turbo)	\$163,000
Caterpillar	TH83	10000	Cat 3054T	81	\$174,000
Caterpillar	TH103	11360	Cat 3054	81	\$200,000

Forklifts

Quinn-Baleboys Ltd: (Freight included)

	height	Lift capacity	3pt Linkage	Front Mounted	F/M + Sideshift
2 Stage	1.50 m	750 kg	\$2,900	\$5,800	\$7,400
		1250 kg	\$3,900	\$6,800	\$8,400
	1.90 m	1500 kg	\$5,400	\$8,750	\$10,550
		2000 kg	\$6,150	\$9,500	\$11,300
	2.00 m	450 kg	\$2,400	\$5,250	\$6,550
	2.40 m	750 kg	\$3,100	\$6,000	\$7,600
3 Stage	3.00 m	1250 kg	\$4,400	\$7,300	\$8,900
		1500 kg	\$5,800	\$9,150	\$10,950
		2000 kg	\$6,600	\$9,950	\$11,750
		750 kg	\$3,450	\$6,350	\$7,950
	2.59 m	1000 kg	\$5,250	\$8,150	\$9,750
		1000 kg	\$5,600	\$8,500	\$10,100
		1250 kg	\$5,550	\$8,450	\$10,050
		1250 kg	\$5,900	\$8,800	\$10,400
	3.00 m	1500 kg	\$6,400	\$9,750	\$11,500
		1000 kg	\$6,800	\$9,700	\$11,500
4 Stage	2.59 m	1000 kg	\$6,800	\$9,700	\$11,500

3pt Linkage = pins, hose and QRC, front mounted includes subframe, bolts, tilt ram/s, valve, bank, F/M Sideshift includes extra valve slice, hyd. Aux. to forks, s/s frame and ram.

Options available:

Bin Tipper - tips 150 degrees, 1250 kg/1500 kg capacity	\$3,000/\$3,400
Fitting Brackets	\$150 to \$550
Hydraulic Auxillary – 2 stage/3 stage/front mounted masts	\$550/\$650/\$340
Bucket Attachment	\$1,950
Bin / Pallet Forks (1250 kg to 2000 kg capacity)	\$850 to \$1,200
Double Acting Top Link - Cat I / Cat II	\$380 / \$390

2.20.10 Trailers

Giltrap Engineering: (Prices include freight in North Island only)

2 tonne tip trailer 2.75 x 1.83 deck	\$5,150
3 tonne tip trailer 2.75 x 2.3 deck	\$5,670
4.5 tonne tip trailer 3.2 x 2.3 deck	\$6,500
5 tonne tip trailer 3.65 x 2.3 deck	\$6,950
5 tonne tip trailer - on tandems	\$8,975
6 tonne tip trailer 3.65 x 2.4 deck	\$8,750
6 tonne tip trailer - on tandems	\$9,995
8 tonne tip trailer 4.4 x 2.4 - on tandems	\$16,900
12 tonne tip trailer 5.0 x 2.4 - on tandems	\$25,200
12 tonne tip trailer as above with sprung drawbar	\$26,750

Smith Attachments: (4 standard sizes available, also made to order)

1200 x 900mm	Trailer - ply deck/ mesh deck	\$878 / \$987
	Stock crate	\$346
1500 x 1100mm	Trailer - ply deck/ mesh deck	\$949/\$1,082
	Stock crate – sliding door/swing doors	\$387 / \$443
	Hay trailer - ply deck/ mesh deck	\$1,108/ \$1,247
	Hay trailer stock crate – sliding door/ swing doors	\$282 / \$338
1800 x 1200mm	- Trailer - ply deck/ mesh deck	\$1,118/\$1,294
	- Stock crate - sliding door/swing doors	\$471

All trailers have ATV wheels, ball coupling, hot-dip galvanised, freight paid.

2.20.11 Silage Wagons/Forage Harvesters/Maize Choppers

Silage Wagons

Taeg Manufacturing:

8.5 cu metre	Single axle, centre feed/side delivery	\$16,000 to \$23,000
9.5/10.5 cu metre	Tandem axle, centre feed/side delivery	\$21,200 to \$25,300
13.0/15.0 cu metre	Tandem axle, centre feed/side delivery	\$25,000 to \$31,500
17.0/19.0 cu metre	Tandem axle, centre feed/side delivery	\$31,400 to \$38,000

Giltrap Engineering: (Prices include freight in North Island only)

Centre Feed Forage Wagons – Super Hydraulic Models:		
Straight Sides – single axle	7.1/9.2 cu.m	\$15,500 / \$16,500
Bathtub Sides – single axle	8.4 cu.m	\$16,400

Bathtub Sides – tandem axles	10.8 cu.m	\$20,200
Bathtub Sides – tandem axles	13.3 / 17.7 cu.m	\$25,000 / \$29,900
Side Delivery Forage Wagons – Super Hydraulic Models:		
Straight Sides – single axle	7.1 cu.m	\$19,000
Bathtub Sides – single axle	8.4 cu.m	\$19,775
Bathtub Sides – tandem axles	8.4/10.8 cu.m	\$21,800/\$23,600
Bathtub Sides – tandem axles	13.3/17.7cu.m	\$28,900/\$33,800
Bathtub Sides – tandem axles	21.2 cu.m	\$36,200
Accessories (freight extra when sold separately):		
Pipe Frame and PVC Cover		\$680 to \$1,030
Fast Floor Kit for harvesting		\$1,250
Round Bale Cradle		\$470

Forage Harvesters (precision chop)

C.B. Norwood:

Precision Chop Forage Harvesters:		
Model	Working width	Price
FCT900	1.80 m pickup	\$59,500
FCT1100 MKII	2.10 m pickup	\$72,885
FCT1350	3.00 m pickup	\$87,950

Tulloch:

Gehl CB865-1275 trailed forage harvesters	\$87,340 to \$123,760
Mengele SH40N M.D. 1.8 metre pickup, 90 to 150 hp	\$90,000
Krone Titan 40GL loader wagon	\$82,044

Dan Cosgrove Ltd:

Feraboli Forage Harvesters -	
FH 343 – Base model with tungsten coated knives	\$11,685
1 Row Crop Head with chains and floating heads	\$5,520
Pick up with gathering auger of 1.4 m	\$5,715
Cutterhead adjustment kit	\$62
Adjustable kernel breaker	\$285
Kit for tilting discharge spout	\$300

Maize Choppers

C.B. Norwood:

Single row maize chopper:	
MH30 complete with electric chute	\$14,980

Kverneland: (European Tractors & Machinery)

TA 101	Single Row Maize Harvester	\$14,990
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Tulloch:

Mengele MB220 mounted maize harvester, single row, 12 knife rotor	\$15,700
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PZ: (European Tractors & Machinery)

PZ MH90S	Single Row	from 30 hp	\$14,990
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Silage/Hay Covers and Wraps

(see also *Section 2.20.23*)

Permathene Plastics Ltd:

Covers – Custom Made

125 micron – black	\$0.90 per square metre
250 micron – black	\$1.40 per square metre
UV2 Silage Film (12m x 50m)	Only available for quantity orders

Balewrap Systems Ltd.: (Includes delivery within South Island)

Balewrap plastic, 750 x 1500, black/white/light green/dark green	\$116 to \$120
Netwrap – UV treated, 3000m edge to edge	\$279
Netwrap – untreated, 3000m edge to edge	\$269
Silage Covers:	
15m x 50m x 200 micron	\$525
15m x 300m x 200 micron	\$2,989
16m x 500m x 200 micron	\$5,289

Dan Cosgrove Ltd:

Rondotex Round Bale Netting

Rondotex MX 1000 with red thread, per roll	\$318
Rondotex MX 1000 with red thread, per roll - 5 rolls or more	\$298

Tulloch:

Plastic tubes for balage – 100 micron thickness	
1.2 to 1.4 round bale, 67m long (~ 50 bales)	\$274.00
1.4 to 1.5 round bale, 67m long	\$308.00
Square – ½ perimeter, 46m long	\$200.00

Silage/Hay Preserves

PDQ Products:

PDQ Silage Treet	Soluble - treats 50 tonnes (100 g)	\$75.00
	Ready to use powder - treats 20 tonnes (10 kg)	\$36.25
PDQ Hay Treet	Treats 325 x 30 kg bales (20 kg)	\$70.00
Gandy Applicator	Suitable for ready to use powder and Hay Treet	\$978
Moisture Tester		\$325

Granular Chemical Applicator: *Speciality Machinery (Marton) Ltd*

Gandy Forage and hay additive applicators:	
Bare shaft (10 kg - 20 kg hopper)	\$825 to \$960
Electric drive (10 kg - 20 kg hopper)	\$1,580 to \$1,730
Electric drive with in cab rate control (40 kg hopper)	\$2,975

2.20.12 Grain Crushers and Feed Mixers

Streamline Feeding Systems:

John Turner (freight included)

Junior all grain roller crusher, 4" roller, chain driven rollers, ¾ hp	\$639
Senior all grain roller crusher, 1 hp	\$1,370
Hayway Chaff cutter - electric/PTO	\$2,500/\$2,200

Kuhn: (Dan Cosgrove Ltd.)

Mixer Wagons	
Euromix II 1460 1860	\$84,000/\$94,000

Giltrap Engineering Ltd: (Prices include freight in North Island only)

NDE Vertical Mixer - Models 10 to 24 cu.m.	\$69,160 to \$135,600
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2.20.13 Prill Applicators

Beattie Insulators:

KG Prill Applicator – for prills and granules	\$26.00
Bottle only	\$1.70

2.20.14 Fertiliser and Manure Spreaders and Topdressers

Amazone: (Landpower NZ Ltd)

Twin Disc Fertiliser Spreaders:		
ZAXW502	ZA-XW Perfect, 500 litre	\$5,250
ZAMP1000	ZA-M Premis 1000 litre	\$7,750
ZAMM1500	ZA-M Maxis, 1500 litre	\$8,950
ZAMT	ZA-M Tronic Amados Add	\$3,990
ZA-MB1500	ZA-M Maxis with weight cells	\$16,500

AgMark:

Eurospread Models		
XA – 400/500	300/340 litre capacity – steel hopper	\$895/\$945
B/S Broadpectrum models – spinner spreaders – XL series		
XL – 400/500	300/350 litre – plastic hopper	\$1,345/\$1,475
Oscillating tube spreaders – P Series		
P406/556	390/540 litre capacity – plastic hopper	\$3,695/\$3,995
P706/906	690/890 litre capacity – plastic hopper	\$4,195/\$4,395
ATV Bike Spreaders		
SP152 (EXT)	Eurospread 120 (150) litre, trailed	\$1,780 (\$1,895)
SP402 (EXT)	Eurospread 280 (380) litre, trailed	\$2,295 (\$2,445)
SP402	Eurospread 380 litre, tandem wheel, trailed	\$3,195

Aitchison Industries:

Linkage mounted spinner spreaders – 400 to 600 litres capacity	\$1,475 to \$1,699
Linkage mounted spinner spreaders – 900 to 1200 litres capacity	\$3,365 to \$3,950
A.T.V. Trailed spreaders – 200 to 400 litres capacity	\$1,965 to \$2,245

Taupo Engineering: (North Island prices including freight)

DML Bulk Fertiliser Spreaders:	
T.H.S. Model 680/980 (680 kg/980 kg units)	\$6,826/\$6,920
T.H.S. Model 2000/3000 (2 tonne/3 tonne units)	\$9,050/\$9,810
T.H.S. Model 980C – ideal for organic material – belt floor	\$7,290

Note: Fertiliser spreaders are built to order – not a stock item.

Giltrap Engineering Ltd: (Prices include freight in North Island only)

Slurry Spreaders (3000 to 10000 litre tanks, single/ tandem axles)	\$16,000 to \$32,400
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Sulky: (C.B.Norwood)

Rotor Series:				
Rotor 402	Single Spinner	330 litre	6 to 12 m spread	\$995
Rotor 500BC	Single Spinner	580 litre	9 to 15 m spread	\$3,195
DR Series:				
DR450	Twin Spinner	450 litre	9 to 15 m spread	\$5,995
DR650	Twin Spinner	625 litre	9 to 15 m spread	\$6,545
DR850	Twin Spinner	800 litre	9 to 15 m spread	\$6,790
DR1150	Twin Spinner	1100 litre	9 to 15 m spread	\$7,245
DPX Series:				
DPX1154	Twin Spinner	1150 litre	12 to 24 m spread	\$8,995
DPX1504	Twin Spinner	1500 litre	12 to 28 m spread	\$10,250
GLX Series:				
GLX1700	Twin Spinner	1700 litre	12 to 36 m spread	\$13,490
GLX2000	Twin Spinner	2000 litre	12 to 36 m spread	\$13,990
GLX2400	Twin Spinner	2400 litre	12 to 36 m spread	\$14,585
GLX3000	Twin Spinner	3000 litre	12 to 36 m spread	\$16,475

Kuhn: (Dan Cosgrove Ltd.)

MDS 82 with/without double acting hydraulics	\$8,515/\$7,700
MDA 732 M with/without double acting hydraulics	\$8,185/\$7,370
MDS 901 with double acting hydraulics	\$8,729
MDS 921	\$9,850
MDS 932 M with/without double acting hydraulics	\$9,290/\$8,475
MDS 1141	\$16,515
Aero 2212/2215 –12/15 m Boom	\$38,515/\$41,415

Vicon: (European Tractors & Machinery)

Superflow Pendulum Spout Spreaders:		
VI PS203	175 litre, 12 metre bout width	\$2,900
VI PS403	as above, with 400 litre capacity	\$3,900

VI PS604	as above, with 600 litre capacity	\$4,900
Rotaflow Twin Disc Spreaders:		
VI DS952	950 litre capacity, twin stainless steel discs	\$6,990
VI RSM1050	1050 litre with rotoflow system, bout width 24 m	\$8,250
VI RSM1405ED	1400 litre with ED spreading computer	\$14,500
VI RS L1305	1300 litre with rotoflow system, bout width 36 m	\$10,250
VI RSM1655ED	1600 litre with ED spreading computer	\$16,500

C-Dax Systems Ltd:

Ground driven ATV trailed broadcast spreaders, 300 l hopper & cover	\$1,810 to \$1,865
12 volt electric 70 litre hopper, ATV mounted	\$715 to \$855
Ground Driven side chute spreader, 300 litre hopper with cover	\$2,130
Trailed Stock Feeder, delivers in snacks or a line	\$1,880

2.20.15 Trucks and Utilities (Light Commercial)

Daihatsu:

RV – Terios range	
TRS 1.3 5 speed/Auto 5DR (+ air conditioning)	\$20,444/\$21,778 (+ \$1,156)
TR 1.3 DVVT 5SPD 5DR (Air Con Standard)	\$20,622
TRS 1.3 DVVT 5 speed/Auto 5DR (Air Con Standard)	\$22,400/\$23,733
Trucks – Cab/Chassis form except tipper (V119DJU)	
V57HSL 1.5 tonne, “Cititruck”	\$28,613
V57HS 1.5 – 1.8 tonne, std cab	\$29,556
V58L 2.0 tonne, low deck	\$30,667
V57PWSL 1.5 tonne, double cab, “Cititruck”	\$37,467
V57PWS 1.5 tonne, double cab	\$46,533
V116HU 3.5 tonne, wide cab	\$34,924
V119WY/V11DJU 3.0 tonne, double cab/tipper	\$44,533/\$44,444
Flat or wellside deck options	\$3,111 to \$4,889

Donnithorne Simms:

		chasis/cab	ute
Triton Petrol			
2.4 standard cab	RS, 2351cc	\$23,822	\$24,889
2.4 club cab	RT, 2351cc	-	\$27,111
2.4 double cab	RS, 2351cc	-	\$29,244
2.4 double cab sport	RS/RT, 2351cc	-	\$31,022
3.0 4WD double cab GLS sport w/ac	RS/RT, 2972cc	-	\$44,178
3.0 4WD dble cab GLS sport -auto	RT, 2972cc	-	\$46,044
Triton Diesel			
2.8 standard cab	RS/RT, 2835cc	\$26,489	\$28,267
2.8 double cab	RS/RT, 2835cc	-	\$31,022
2.8 4WD standard cab	RS/RT, 2835cc	\$31,911	\$33,689
2.8 4WD double cab	RS/RT, 2835cc	-	\$36,978

Ford:

Courier Petrol	chasis/cab	wellside
2.6 litre range (manual)	\$24,267 to \$27,467	\$26,044 to \$32,889
Courier Diesel – 2WD	chasis/cab	wellside
2.5 litre range (manual)	\$27,467 to \$30,311	\$29,244 to \$34,400
Courier Diesel – 4WD	chasis/cab	wellside
2.5 litre range (manual)	\$35,022 to \$37,867	\$39,200 to \$41,244-
Falcon Utility	chasis/cab	pick-up
4.0 litre range (auto)	\$28,267	\$30,044 to \$33,778
4.0/5.0 Auto/Manual	-	\$36,889 to \$41,333
Falcoln Utility –LPG	chasis/cab	pick-up
4.0 Auto (Col)	\$28,711	-
4.0 Auto	-	\$30,489 to \$34,222
F-Series	2WD (5.4 V8 petrol)	4WD (7.3 V8 diesel)
Various cab options	\$70,222 to \$75,556	\$83,556 to \$8,889

Holden: (Blackwell Motors Ltd)

Holden VU II Utility	3.8 V6	5.0 V8
5 speed automatic	\$31,111 to \$34,667	\$38,667 to \$42,222
Holden Rodeo	3.2 V6 petrol	2.8 diesel (turbo)
2WD	\$27,733 to \$39,289	\$26,844 to \$34,311
4WD	\$42,400	\$34,844 to \$41,511

Landrover: (Christchurch BMW and Rover)

Freelander (manual and auto)	\$44,356 to \$59,111
Defender (manual)	\$44,000 to \$56,000
Discovery (manual and auto)	\$64,444 to \$80,000
Range Rover (auto)	\$98,489 to \$120,000

Mazda:

Bounty – 2WD	chasis/cab	wellside
Standard Cab 2500cc	\$26,862 to \$27,307	\$27,306.67
Cab Plus S-DX 2500cc	\$31,644	\$32,978
Double Cab 2500cc	\$32,756 to \$34,156	
Bounty – 4WD	chasis/cab	wellside
Standard Cab 2500cc	\$34,796 to \$35,240	\$36,440
Cab Plus S-DX 2500cc	\$36,884	\$38,662
Double Cab 2500cc	\$39,751 to \$41,311	

Nissan:

Navara – 2WD	chasis/cab	wellside
S/Cab 2.7 diesel	\$27,106	\$28,884
K/Cab 2.7 diesel	\$29,684	\$31,196
D/Cab 2.4 petrol or 2.7 diesel	-	\$30,218/\$31,729
Venturer D/Cab 2.4 petrol or 2.7 diesel		\$32,884/\$34,396

Navara – 4WD	chasis/cab	wellside
S/Cab 3.2 diesel	\$35,551	\$37,329
D/Cab W/Side 3.2 diesel	-	\$39,996
Venturer D/Cab 3.2 diesel	\$42,662	
Patrol – 4WD	4.8 petrol	3.0 diesel (turbo)
5 Door Wagon Auto	\$73,773	\$63,551
X-Trail – 4WD		2.5 Petrol
5 Door Wagon		\$38,395 to \$39,551

SangYong: (Murray Costello Cars)

Musso 2.9 diesel 4WD	\$46,000 to \$59,000
Musso 3.2 diesel 4WD	\$53,000 to \$70,000

Toyota:

Hi-Lux – 2WD	chasis/cab	ute
Standard/Extra Cab 3.0 diesel	\$28,355/\$30,756	\$29,867/\$31,111
Standard Cab 2.7 petrol	\$26,133	-
Extra Cab 2.7 petrol	-	\$29,689
Double Cab 3.0 diesel	-	\$32,178 to \$34,222
Double Cab 2.7 petrol	-	\$34,933
Hi-Lux – 4WD	chasis/cab	ute
Standard Cab 3.0 diesel	\$36,889	-
Extra Cab 3.0 Diesel	\$38,933	\$40,711
Double Cab 3.0 diesel/turbo diesel	-	\$40,089/\$45,600
Land Cruiser 70	chasis/cab	hardtop
LWB 4.2 diesel	\$45,751	\$54,311
Land Cruiser Prado		
3.0 RV/VX diesel – manual or auto		\$57,689 to \$64,978
3.4 VX V6 petrol auto		\$61,956
Land Cruiser Wagon		
4.2 RV diesel manual		\$66,933
4.2 VX turbo diesel auto		\$84,000 to \$99,111

2.20.16 Cultivation Implements

Ploughs

Clough: 2000 Tri-Line series - auto reset

4 to 6 furrow (in-furrow)	\$23,580 to \$28,608
7 to 9 furrow (on-land)	\$33,408 to \$37,482

1000 Tri-Line series - auto reset

3 to 5 furrow	\$10,682 to \$14,488
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Lemken: (C.B. Norwood)

Mounted Reversible Ploughs:		
Vari-Europloough 7X	3 to 5 furrow	\$24,705 to \$36,985

Vari-Europlough 8X	4 to 6 furrow	\$33,985 to \$46,980
Semi-Mounted Reversible Ploughs:		
Diamante 9 Series (SMV 160)	5 to 7 furrow	\$53,940 to \$68,990
Semi-Mounted Conventional Ploughs:		
Vari Turmalin 9 Series	5 to 7 furrow	\$27,950 to \$36,950

Overum: (Landpower NZ Ltd)

Fully Mounted Conventional Ploughs		
CT388F/488F/488H	3/4/4 Furrow	\$11,000, \$13,750/\$16,950
Semi-mounted conventional ploughs – automatic hydraulic release with hydraulic vari-width adjustment 12” to 20”		
DL4108/5108H	4/5 Furrow	\$24,850/\$27,850
Reversible Fully Mounted Ploughs – New “Xcelsior” Range		
- Fully Mounted Shear Bolt Release		
CX390/490F/DX590F	3/4/5 Furrow	\$19,500, \$22,750, \$29,900
- Fully Mounted Hydraulic Release		
CX490H/DX490/590H	4/4/5 Furrow	\$28,850,\$33,500,\$38,500
- Vari-Flex Fully Mounted Hydraulic Release Hyd Vari Width		
DX490H.V/DX590 H.V	4/5 Furrow	\$38,500, \$43,750
Reversible Semi Mounted Ploughs		
- Semi Mounted Wagon Ploughs Hyd Release		
CXL6100/7100/8100H	6/7/8 Furrow	\$49,950, \$54,500,\$59,900

Kverneland: (European Tractors & Machinery)

BB85-5-1/BB100-6-1	Conventional 5/6 furrow	\$25,590/\$29,790
AD85-4-1	Conventional 4 furrow	\$17,990
EM85-3-1	Reversible 3 furrow	\$21,840
EG85-4-1/EG85-5-1	Reversible 4/5 furrow	\$36,440/\$44,140

Chisel Ploughs and Subsoilers

Aitchison: Soil Aerator

Double Beam Model No. of tines	Frame width (metres)	Without coulters	With coulters
3	1.83	\$2,769	\$3,699
4	1.83	\$3,292	\$4,532
5	1.83	\$3,815	\$5,365
5	2.40	\$4,115	\$5,665
7	2.40	\$5,161	\$7,331
9	2.40	\$6,207	\$8,997
Optional extra	Plain roller, Crumbler roller (1.83/2.4 m)		\$1,436/ \$1,751
	Vibrator		\$977
Mole Plough - manual tine adjustor/hydraulic adjustor			\$2,160/\$2,575
Combo Units - chisel plough coupled with cultivator:			
6/8' (1.83m/2.44m) unit		\$7,200 to \$8,296	
8/10' (2.44m/3.05m) unit		\$8,968 to \$11,160	
10/12' (3.05/3.66m) unit		\$11,146 to \$13,338	

Clough:

950 Goliath chisel plough/cultivator - 7 tine (2.7 m) to 15 tine (4.65 m)	\$7,185 to \$10,495
300 Panaerator sub tillage plough 3 to 7 legs (with coulters and roller crumbler)	\$6,420 to \$11,565

Discs

Dan Cosgrove Ltd:

Cosgrove Trailing Discs - 32 and 36 blade	\$13,090 to \$14,655
Discover XM (28 – 44) Tandem Heavy Discs - 3.2 m to 4.8 m	\$44,565 to \$52,725
Disc Cage Rollers for XM (28 – 44)	\$10,370 to \$11,090

Kverneland: (European Tractors & Machinery)

DVB-A405	4.1 m Offset discs	\$25,790
DXA-A450	4.5 m Tandem discs	\$46,990

Cultivators

Aitchison:

Easyflow cultivators, with or without crumbler roller		
1.8m/3.66m	17/35 tine	\$2,373 to \$4,855
Wideline Foldup LT cultivators, with crumbler roller and end wheels:		
4.3m/5.0m	43/49 tine	\$9,414/\$10,170
5.6m/6.2m	55/61 tine	\$10,869/\$11,811
Easyflow Wideline Trailed LT cultivator, with crumbler roller and end wheels:		
5.6m/9.25m	56/90	\$20,879 to \$28,240
Easyflow wideline trailed DP cultivator, with crumbler roller, grubber tines & end wheels:		
5.6m/9.25m	45/72 tine	\$24,379 to \$39,431

Dan Cosgrove Ltd:

Mixer stubble cultivators	
Mixer 7T, 7 tines, 6 discs, 3 m working width, 550mm tube roller	\$15,995

Speciality Machinery (Marton) Ltd.:

Rollstar inter row cultivators – option of solid or hydraulic fold toolbar	
2 row to 8 row	from \$6800 to \$24,800

Breviglieri: (C.B. Norwood)

Inter-Row Cultivator: MG3	45 to 100 hp	\$3,795 to \$4,495
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Superflow Heavy Cultivators

2 bar frames	subsoiler	1.12/1.98 m	1 to 3 tine	\$2,225/\$5,259
	Lo-draft	1.90/2.44 m	3 to 7 tine	\$3,255/\$6,335
	Cushion	1.90m/2.44m	3 to 7 tines	\$3,351/\$6,559
3 Bar Frame	Lo-Draft	1.90m/3.66m	5 to 13 tines	\$5,050/\$11,660
	Cushion	1.90m/3.66m	5 to 13 tines	\$5,210/\$12,076
Depth wheel, per pair				\$1,058

Clough:

920 Mounted Maxi-Till standard models with crumbler:	
2.53m to 4.13m , 22 and 38 tine	\$3,135 to \$4,365
929 Contura – Foldup mounted Maxi-till	
4.25m to 5.6m, 42 to 56 tine	\$7,600 to \$8,685

Kuhn: (Dan Cosgrove Ltd) Power Tillers – Up to 200hp

EL 201-300 Curved spade rotor	\$30,320
Maxi crumbler roller	\$1,780
Packer roller/Maxi packer roller	\$2,825/\$3,360
EL 201-300 Cultitiller rotor with straight angled blades	\$31,090
EL 201-400 Curved spade rotor	\$33,495

Kverneland: (European Tractors & Machinery)

TLA-4-1	Base Unit 4 m	\$9,950
TLA-5-3	c/w crumbler and levelling boards 5m	\$15,730

Tine Cultivators*Kverneland: (European Tractors & Machinery)*

CLC-9-1	base unit, 9 tine	\$7,700
CLC-11-3	c/w cage roller, 11 tine	\$13,250
CLC-13-5	c/w cage roller and discs, 13 tine	\$19,700

Lemkin: (C.B. Norwood)

Terra Disk mounted tine and disc cultivators	\$10,950
Topas Pre-Ripper Cultivators	\$6,995

Clough:

940 Agri-tiller Coil Tine Cultivator

		with Crumbler	without Crumbler
2.06 m	9 tine	\$3,840	\$2,990
2.50 m	11 tine	\$4,530	\$3,335
2.96 m	13 tine	\$5,065	\$3,805
3.40 m	15 tine	\$5,545	\$4,245
3.86 m	17 tine	\$6,020	\$4,730

Rotary Hoes*Maschio: (European Tractors & Machinery)*

L 105 / 125	25 hp Rotary Hoe 1.05/1.25 m	\$3,250 / \$3,450
W 105 / 125	35 hp Rotary Hoe 1.05/1.25 m	\$3,790 / \$3,990
U 155 / 205	80 hp Rotary Hoe 1.55/2.05 m	\$6,890 / \$8,930
C 250 / 300	120 hp Rotary Hoe 2.5/3.0 m	\$11,990 / \$13,490
SC 250 / 300	160 hp Rotary Hoe 2.5/3.0 m	\$15,990 / \$17,990
G 300 / 350	250 hp Rotary Hoe 3.0/3.5 m	\$29,990 / \$31,990
G 400	250 hp Rotary Hoe 4.0 m	\$33,990
250C Super Cobra	2.5 m cultivator, 160 hp, cage roller	\$19,990

250P Super Cobra	2.5 m cultivator, 160 hp, packer roller	\$21,490
300C Super Cobra	3.0 m cultivator, 160 hp, cage roller	\$21,990
300P Super Cobra	3.0 m cultivator, 160 hp, packer roller	\$23,490

Kverneland: (European Tractors & Machinery)

CL100	1 m width	\$3,250
GS120-235	2.5 m width	\$13,490
CL250-285	3 m width	\$22,990

Breviglieri: (C.B. Norwood)

Rotary Hoes	Size		Price
B21s	1.05/1.25 m (40/50")	15 to 35 hp	\$3,495/\$3,695
B31s	1.45 m (57")	20 to 50 hp	\$4,195
B60v	1.55/1.85 m (60/72")	40 to 70 hp	\$7,490/\$7,995
B72v	2.05/2.30 m (80/90")	60 to 90 hp	\$10,980/\$11,480
B102v	2.3/2.5/3 m (90/100/120")	80 to 140 hp	\$15,695/\$16,990/\$18,990
B200v	3.00 m (120")	120 to 200 hp	\$26,995

Power Harrows

Kuhn: (Dan Cosgrove Ltd.) HR Power Harrows –

Up to 140hp			
HRB 252 D	with crumbler roller or packer roller		\$19,365/\$20,385
HRB 302 D	with crumbler roller or packer roller		\$22,370/\$23,535
HRB 352 D	with crumbler roller		\$27,025
Up to 250hp			
HR 3003 D	with crumbler roller, packer roller or maxi packer		\$26,340 to \$28,035
HR 3503 D	with maxi crumbler or maxi packer		\$29,585/\$31,835
HR 4003 D	with maxi crumbler or maxi packer		\$33,655/\$36,095
Up to 280hp – foldable model			
HR 4003/4503 DR	with maxi packer		\$56,475/\$61,825
HR 5003/6003 DR	with maxi packer		\$64,660/\$80,335
Packer Roller	3.0 m		\$2,825
Maxi Packer	3.0/3.5/4.0 m		\$3,360/\$4,245/\$4,570
Crumbler Roller	3.0 m		\$1,665
Maxi Crumbler	3.0/3.5/4.0 m		\$1,780/\$1,990/\$2,130
Levelling Bar	3.0/3.5/4.0 m		\$1,095/\$1,155/\$1,165

Breviglieri: (C.B. Norwood)

Model	Size		Price
Leader	2.50 m (100")	70 to 140 hp	\$16,995 to \$19,590
Leader	3.00 m (120")	80 to 140 hp	\$18,995 to \$21,990
Magnum	3.00 m (120")	100 to 220 hp	\$22,995 to \$24,950
Magnum	3.50 m (140")	110 to 220 hp	\$25,995 to \$28,450
Magnum	4.00 m (160")	120 to 220 hp	\$28,995 to \$30,995
Premier	6.00 m (240") folding	170 to 250 hp	\$52,500 to \$56,980

Amazone: (Landpower NZ Ltd)

With cage rollers, tooth packer rollers, tyre packer rollers or wedge ring rollers:-		
KE253	2.5m Power Harrow	\$13,900 to \$18,500
KE303	3.0m Power Harrow	\$17,000 to \$23,600
KE403	4.0m Power Harrow	\$24,000 to \$32,000

Kverneland: (European Tractors & Machinery)

NG300H4-CR	3.0 m 180 hp c/w cage roller	\$20,990
NG350H4-PR	3.5 m 180 hp c/w packer roller	\$25,990

Maschio: (European Tractors & Machinery)

Bravo series, 120hp 2.0 / 2.5 / 3.0 m	\$12,500 to \$18,990
DM series, 200 hp 3.0 / 3.5 / 4.0 m	\$20,990 to \$28,990
MEGA 4000C / 4000P, 250 hp 4.0 m	\$35,490 / \$37,990

Inter Row Cultivators

Maschio: (European Tractors & Machinery)

K-L2	2 Row cultivator	\$8,995
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Harrows

Lyndon Harrows:

"Lyndon" Chain Harrow

1.5 to 2.1 m width – 10 and 12 mm sq	\$473 to \$737
2.4 to 4.2 m width – 10, 12 and 16 mm sq	\$654 to \$2,415

Spiked Chain Harrows

12 mm Round, 6' x 6' to 12' x 8'	\$654 to \$1,705
16 mm Round, 8' x 8' to 14' x 8'	\$1,534 to \$2,393
20 mm Round, 8' x 8' to 14' x 8'	\$2,541 to \$5,082

Tripod and 'Lyndon' Chain Harrows

10/12 mm sq chain, 2.4 to 4.2 m	\$2,101 to \$3,724
16 mm sq chain, 3.0 to 4.2 m	\$3,624 to \$4,934

Standard Models

	8'	10'	12'
12 mm round and 10 mm square	\$1,061	\$1,315	\$1,623
12 mm round and 12 mm square	\$1,287	\$1,502	\$1,788
16 mm round and 12 mm square	\$1,612	\$1,898	\$2,228
16 mm round and 16 mm square	\$2,437	\$2,854	\$3,195

Round Ring Chain Harrow

12 mm round, 8' x 3' to 12' x 3'	\$500 to \$655
16 mm round, 8' x 6' to 12' x 6'	\$952 to \$1,205
20 mm round, 8' x 8' to 14' x 8'	\$2,409 to \$3,823

Round Ring Contractor's Harrow

24 mm round material, 8' x 8' to 14' x 8'	\$2,816 to \$4,835
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Utility Harrows

10, 12 and 16 mm diameter, round, 7' to 14'	\$396 to \$985
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Pea Harrow – Potato Harrow

Per leaf/Bars	\$231
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Drill Harrows

Light weight 10 kg leaf 30 x 5 flat: 4 and 3 row per leaf	\$160 and \$127
Bars	\$160 to \$182
3.2 m wide (suit 18 run drill)/3.5 wide (suit 20 run drill)	\$765 to \$808
Medium weight 18 kg leaf 32 x 8 flat and heavy weight 22 kg 30 x 10 flat 4 row \$167 per leaf, suit 20 run drill	\$908
3 row \$130 per leaf, suit 18 run drill	\$858
Bars	\$165 to \$193

Stump Jump Self-Cleaning Harrows

4 row wide, 3/4 deep, 30/40 kg per leaf, 40 x 10 flat	\$237 / \$308
40x10 flat, 53 kg heavy rakers/50x10 flat, 63 kg super heavy rakers	\$341/\$385 per leaf
Draw bar, 3 / 4 / 5 leaf	\$352 / \$385 / \$424

Diamond Harrows

16 mm tine/20 mm tine	\$297 / \$341
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Zig Zag Harrows, High Tensile Tines

35 kg 16 mm tine / 45 kg 20 mm tine	\$248 to \$319
Bars – 3 / 4 / 5 leaf	\$314 / \$363 / \$418
3.1 m, 3 leaf and bar 16 mm/20 mm	\$1,155/\$1,271
4.05 m, 4 leaf and bar 16 mm/20 mm	\$1,485/\$1,639
5.05 m, 5 leaf and bar 16 mm/20 mm	\$1,820/\$2,013

Horse Training Track Harrows - Blade type harrows which cut into hard tracks

Bolt on 320x70x12, 2 leaf and bar / 3 leaf and bar	\$1,622/ \$2,425
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Speciality Machinery (Marton) Ltd.:

Comb Harrow (tine weeder) – suitable for organic cropping 2m to 12m coverage	from \$3,000 to \$17,500
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Soil Looseners

Kuhn: (Dan Cosgrove Ltd)

DC 300 with standard/wide delta share	\$12,175/\$12,955
DC 400 with standard/wide delta share	\$16,415/\$17,330

*Amazon: (Landpower)***Deep Loosener**

TL302/402/452	3.0/4.0/4.5m	\$7,800/\$10,900/\$11,200
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Rollers - Cambridge Rollers*Aitchison Industries:*

Cambridge Roller	2.4m to 3.6m	\$3,773 to \$4,888
Hydraulic Folding Cambridge Roller – with standard, heavy or extra heavy rings		
- 7.50 m (25 ft) working width	5,500 kg	\$17,500
- 4.00 m (13 ft)	2,050 kg to 2,880 kg	\$4,500 to \$5,500
- 3.65 m (12 ft)	1,950 kg to 2,650 kg	\$4,300 to \$5,200
- 3.35 m (11 ft)	1,840 kg to 2,450 kg	\$4,100 to \$4,950
- 3.05 m (10 ft)	1,680 kg to 2,240 kg	\$3,900 to \$4,700
- 2.80 m (9 ft)	1,530 kg to 2,050 kg	\$3,700 to \$4,450
Transport Wheels		\$1,050
Hydraulic Transport Wheels		\$3,200
- 3.05 m (10 ft) with heavy flat rings	3,800 kg	\$6,600
Vee Ring Seeder Roller – with vee bottom seedbox, transport wheels, hydraulic clutch and extension drawbar		
- 3.05 m (10 ft)	2,200 kg	\$11,800
Hydraulic Transport Wheels Plus		\$2,100
Tandom Hitch – adjustable 6.1 m (20 ft) to 8.0 m (26 ft)		\$2,000
Multi Rear Hitch – drawbar stand (on all rollers) and harrow tie lugs included		\$2,000

Duncan: (Clough Group)

310 Roller	8' / 9' / 10' standard rings complete with hydraulic wheels	\$8,940 to \$9,570
	8' / 9' / 10' – standard rings less wheels	\$6,170 to \$6,805

Kverneland: (European Tractors & Machinery)

RTG6-CB	6.25 m Cambridge Rings Hydraulic Fold Rollers	\$23,990
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Heavy Rollers

Water Ballast Heavy Rollers	\$8,000 to \$16,000
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Field Rollers*Aitchison Industries:*

Rotocon	2.0m to 2.75m	\$7,137 to \$9,047
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2.20.17 Planting Implements**Drills and Seed Boxes***Aitchison Industries: (freight included)*

Seedmatic 3000 seed only drills		
Linkage 12 to 20 row	1.8 to 3.0 m	\$11,798 to \$15,741
Trailed 12 to 20 row	1.8 to 3.0 m	\$15,088 to \$19,631
Coulter/Linkage 12 to 20 row	1.8 to 3.0 m	\$14,974 to \$20,636

Coulter/Linkage 12 to 20 row	1.8 to 3.0 m	\$14,974 to \$20,636
Coulter/Trailed 12 to 20 row	1.8 to 3.0 m	\$18,264 to \$24,526
Seedmatic 3100 seed and fertiliser drills:		
Linkage 12 to 20 row	1.8 to 3.0 m	\$13,975 to \$18,706
Trailed 12 to 20 row	1.8 to 3.0 m	\$17,265 to \$22,596
Coulter / Linkage 12 to 20 row	1.8 to 3.0 m	\$17,151 to \$23,601
Coulter / Trailed 12 to 20 row	1.8 to 3.0 m	\$20,441 to \$27,491
Seedking 1400 arable drill:		
19 to 23 run hoe coulter/double disc	2.85 to 4.22 m	\$25,103 to \$37,962
Seedking 1500 end tow arable drill, 24 to 30 run hoe		\$41,948 to \$52,279
Coulter/Double disc		
Seedmatic 4000 platform drills, tine and press wheel, double disc and press wheel, hoe and press wheel		\$21,595 to \$40,506
Seed and fertiliser boxes for rollers, powers harrows etc:		
Seed only	1.8 to 3.8 m	\$5,443 to \$8,150
Seed and fertiliser	1.8 to 3.8 m	\$8,150 to \$11,686
Roller drills, no transport wheel	2.4 to 3.6 m	\$10,298 to \$10,663
Roller drills hydraulic transport	3 m to 4 m sowing	\$19,431 to \$23,264
Moore no till drill	3 m 18 run (166 mm)	\$48,296
	3 m 22 run (133 mm)	\$57,229
	4 m 24 run (166 mm)	\$64,116
Rancher/Grassfarmer Pasture Drill		\$9,406 to \$11,546
Interseeder Series "M"		
- Seed only drill	2.4m to 3.45m	\$16,691 to \$31,131
- Seed and fertiliser drill	2.4m to 3.45m	\$18,812 to \$34,881
Ramp transportable roller	2.7m to 3.6m	\$15,585 to \$18,841
Achy Box – 3 outlet box (40 litre)/5 outlet box (60 litre)		\$999.00/\$1119.00
Maize side dresser (single or double hopper, 3 tine or 6 tine)		\$8,569 to \$9,974

Duncan: (Clough Group)

Enviro Multiseeder Drill 15 to 23 run triple disc		\$49,300 to \$62,800
720 Quantum Arable Seeder	17 to 23 run hoe coulter	\$34,155 to \$40,525
	17 to 23 run double disc	\$36,380 to \$43,535
T760 Till – Seeder		
11 run seed box, fertiliser box and disc openers		\$16,565
15 run seed box, fertiliser box and disc openers		\$18,690
320 roller drill	8' / 9' / 10' – with hydraulic wheels	\$18,610 to \$20,045
	8' / 9' / 10' – no hydraulic wheels	\$15,910 to \$17,360
Duncan Renovator	15 to 19 run seed and fertiliser c/w disc	\$25,340 to \$28,625

B.S.Taege: Seed drills – suitable for oversowing and conventional operations.

Series 300 - 3 m, 23 tine	Single hopper (seed only)	\$19,300
	Twin hopper (seed and fertiliser)	\$24,600
Series 360 - 3.6 , 31 tine	Single box (seed only)	\$23,000
	Twin box (seed and fertiliser)	\$30,000
Series 240 - 2.4 m, 15 tine	Single box (seed only)	\$11,500

Sulky: (C.B.Norwood)

Model	Type	Size	Price
<i>Master Series (3 point linkage)</i>			
Master 300	21 row Suffolk Coulter	3.0 m	\$15,750
Master 300	21 row Double Discs	3.0 m	\$19,950
<i>GC Tramlines Series (3 point linkage)</i>			
GC300	21 row Suffolk Coulter	3.0 m	\$18,950
GC300	21 row Double Discs	3.0 m	\$23,950
GC400	27 row Suffolk Coulter	4.0 m	\$24,995
GC400	27 row Double Discs	4.0 m	\$32,750
<i>Compact Master Series:</i>			
Compact Master 3M	Power harrow mounted	3.0 m	\$17,500
<i>SPI Series (Power Harrow Mounting and 3 point linkage):</i>			
SPI (air)	21/23/27/29 row	3.0/3.5/4.0/4.5 m	\$33,500/\$36,500/\$39,400/\$42,500

Direct Drills

Kuhn: (Dan Cosgrove Ltd)

SD 3000 P18R/P20R	\$92,945/\$96,475
SD 4000 P22R/P26R	\$116,470/\$125,110
Disc markers (hydraulically folding) for SD 3000/SD4000	\$3,535/\$3,620
Half width shut-off – 9 rows (mechanical) for SD 3000 18R	\$915
Half width shut-off – 10 rows (mechanical) for SD 3000 20R	\$1,040
Half width shut-off – 11 rows (mechanical) for SD 4000 22R	\$1,170
Slug Pellet Hopper	\$3,465

Precision Drills

Amazone: (Landpower NZ Ltd)

<i>Seed Drills – Pack Top Seed Drills</i>			
AD253/AD303	20/24 row	2.5/3.0 m	\$23,000/\$24,000
AD403/AD453	32/36 row	4.0/4.5 m	\$28,000/\$29,000
<i>Seed Drills – D9 Super Seed Drills 3 Point Linkage</i>			
D930/D940/D950	25/33/36 row	3.0/4.0/4.5 m	\$15,990/\$19,900/\$24,900
<i>Combi Single Pass Till/Drills (Complete System Machine)</i>			
Combi 3/4		3.0/4.0m	\$42,500/\$53,500
<i>Seed Drills – Pneumatic</i>			
AD-PL 302	Airstar Progress Economy 24 Roll Disc Coulters	3.0 m	\$25,200
AD-P 302	Airstar Profi 24 Roll Disc Coulters	3.0 m	\$32,970
AD-P 402	Airstar Profi 32 Roll Disc Coulters	4.0 m	\$37,800
AD-P 452	Airstar Profi 36 Roll Disc Coulters	4.5 m	\$38,800

Kuhn: (Dan Cosgrove Ltd)

Pneumatic Seeder	Venta TI302 30SL-3R	\$35,640
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Transplanters

Transplant Systems Ltd: (prices ex-Christchurch/Auckland)

RT-2 Transplanters	Two/three row	\$11,700/\$16,600
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Optional extras	- second toolbar	\$420
	- land compression rollers	\$550
Three row automatic transplanters		\$50,000
Bare root Transplanters:		
3 point linkage mounted	1 row/2 row	\$2,580 to \$2,750/\$4,910 to \$5,250
Cell root transplanters		
3 point linkage	1 row/2 row	\$6,200/\$12,100
Planting pots or cell transplants	1 row	\$8,200
Tree Seedling Transplant		\$3,950 to \$11,700
Tunnel layer, 3 point linkage	1 row	\$9,985

Potato Planters

Landpower NZ Ltd:

Grimme Potato	GL3213 2 row cup planter	\$35,000
Planters	GL34100 4 row trailed planter	\$58,000
Structural Belt Potato	- 2 row tipping hopper model (850kg hopper)	\$40,000
Planters	- 4 row tipping hopper model	\$70,000

2.20.18 Harvesting Equipment

Lifters, Diggers and Harvesters

Grimme Potato Harvesters: (Landpower NZ Ltd)

Dominator	SE7520 single row harvester, 2.2 tonne bunker	\$99,000
	SE7530 high capacity single row harvester, 3.5 tonne bunker	\$135,000
	SE7540 high capacity single row harvester, 4.5 tonne bunker	\$142,000
Variant DL 1700 two row harvester		\$148,000

Midland Machinery: Schumacher Crop Lifters – (ex-Christchurch Store)

Button type lifters (blue)	\$42.00
Spring lock lifters (orange)	\$44.85
Mounting reel with bolt and nut	\$5.60

Windrowers

Landpower NZ Ltd:

Grimme RL1500	\$50,000
Grimme Combi star CS1500/CS1700	\$110,000/\$120,000

Combine Harvesters

Landpower NZ Ltd: (prices vary with size and specifications) – all price approximate

Mega 204 Combine + 6 m Dominator/Mega Front	\$260,000
Mega 208 Combine + 6 m Dominator/Mega Front	\$295,000
Lexion 430 Combine + 6 m Lexion Front	\$300,000
Lexion 450 Combine + 6.6 m Lexion Front	\$350,000

Grain Augers: Standard 40 ft (12.2 metres) \$3,500 to \$6,000

2.20.19 Farm Bulldozers

Gough Gough and Hamer Ltd: Track Type Tractors

	Machine	Op wght (kg)	Engine make	kW	hp	RPM	Price
Caterpillar	D3G XL	7345	Cat 3406	52	70	2400	\$166,396
Caterpillar	D4G XL	7800	Cat 3406	60	80	2400	\$183,771
Caterpillar	D5G XL	8904	Cat 3406T	67	90	2400	\$232,530

2.20.20 Grader Blades

Commander: (Fairbrother Industries)

M921- 2100/M924 -2400	- 7ft/8ft	\$2,950/\$3,250
MH924 – 2400	- 8ft 1 Ram Offset	\$4,220
	- 2 Ram Offset, Angle	\$4,890
	- 3 Ram Offset, Angle and Camber	\$5,710

Pearson Engineering Ltd:

Grader Blades		
Regular	1.8 m/2.1 m wide	\$2,520/\$2,835
Heavy Duty	2.1 m/2.4 m wide	\$3,255 to \$3,675
Mighty	2.1 m/2.4 m wide, 1, 2, or 3 hydraulic ram	\$4,410to \$6,615

2.20.21 Other Farm/Orchard Equipment

See also *Section 2.19.6*, fencing equipment.

Waterblasters

Ag Equipment Specialists:

Hurricane Complete, tractor driven, 250/500 litre – tanks 21.5 to 27.5 litres per minute, 2000 psi	\$2,995 to \$3,900
Tornado-motorised 1750-4300 psi, 11-30 litres per minute, 5-24hp	\$1,795 to \$8,880
Electro-blast electric – 1400 to 3000 psi, 9 to 30 litres per minute (single and three phase)	\$1,725 to \$6,450
Steam Cleaners (Hot/Cold Water Blasters)	
Pulicar Step 120, 1740 psi, 8.54 litres per minute	\$3,595
Pulicar 1500 to 3000 psi 11 to 21 litres per minute (single, three phase and petrol powered)	\$4,950 to \$12,950

Croplands Equipment Ltd:

Electric	Bravo pressure cleaner, 240 volt, 8 litres per minute capacity	\$550
	240 volt, Blitz, 11 litres per minute	\$890

Kanters Engineering & Machinery Ltd.:

Electric Waterblasters 1.5 hp to 3 hp	\$725 to \$1,695
Petrol Models up to 13 hp, 2000 to 3000 psi	\$1,495 to \$4,050

Mulchers

Breviglieri: (C.B. Norwood)

Model	Size		Price
Straw and Scrub Mulchers:			
Hurricane H80 – 160	1.60 m (5'')	50 to 20 hp	\$7,495
Hurricane H80 – 200	2.00 m (6' 5'')	55 to 120 hp	\$8,295
Hurricane H80 – 230	2.30 m (7' 5'')	60 to 120 hp	\$8,995
Hurricane H80 – 280	2.80 m (9' 2'')	70 to 120 hp	\$10,995
Orchard and Park Mulchers:			
Turbo T100 – 155	1.60 m (5' 3'')	40 to 90 hp	\$7,995
Turbo T100 – 180	1.80 m (6')	45 to 90 hp	\$8,495
Turbo T100 – 200	2.00 m (6' 7'')	50 to 90 hp	\$8,995
Turbo T100 – 220	2.20 m (7' 2'')	50 to 90 hp	\$9,895

AgMark: Nobili Mulchers

BNE 120	1.2 m orchard mulcher		\$5,695
VKDO 155/190	1.53/1.906 m orchard mulcher		\$8,895/\$9,595
VKDO 210/VKM-210	2.094 m orchard mulcher		\$9,995/\$11,995
BNU 160/195	1.58/1.94 m topper/mulcher		\$7,995/\$8,995
BNG 230	2.3 m topper/mulcher		\$9,995
BNG – 270	2.67 m topper/mulcher		\$13,395
BNG – 310	3.03 m topper/mulcher		\$15,495
VKP – 190	1.9 m heavy duty mulcher		\$11,995
RM – 210	2.11 m scrub, stubble and topping mulcher		\$11,950
RM – 280	2.8 m scrub, stubble and topping mulcher		\$16,995

Chainsaws

Fosters Outdoor Power Equipment Ltd:

<i>Stihl:</i>	Bar Length		Price
009 to 40cc	41 cm (16'')		\$573
E140-electric	36 cm (14'')		\$440
25 to 44.3cc	41 cm (16'') to 46 cm (18'')		\$866
39 to 84.9cc	51 cm (20'')	\$1,328 to	\$1,933
90 to 136cc	76 cm (30'')		\$3,284
23c to 40cc	41cm (16'')		\$777

Russell Thomas Chainsaws & Mowers:

MTD Chainsaws:	Power Rating/Bar Length		Price
MTD3414	34cc, 35 cm (14'')		\$377.78
MTD3616	36cc, 40 cm (16'')		\$413.33
MTD3818	38cc, 45 cm (18'')		\$443.56
Dolmar Chainsaws:	Power Rating/Bar Length		
PS34/40 / PS40/35	1.3kW, 40 cm/1.4 kW, 35 cm	\$600.00/\$689.78	
PS400/35 /109/38	1.7kW, 35 cm/2.0 kW, 38 cm	\$724.44/\$899.56	
PS52/45/PS6000i/45	2.4 / 3.1 kW, 45 cm	\$1,044.44/\$1,533.33	
PS6800i/53/PS90 10/60	3.6kW, 53 cm 4.9 kW, 60 cm	\$1,635.56/\$2,057.78	
PS9010/74	4.9kW, 74cm		\$2,057.78

Brushcutters/Trimmers

Russell Thomas Chainsaws & Mowers:

		Price
MTD Trimmers:		
LT31 (with clutch)		\$265.78 (\$328.00)
LT31CS	With clutch & straight shaft	\$443.56
Dolmar Brushcutters:		
Power Rating		
LT250 Line Trimmer	0.73kW	\$480.89
MS20C/MS2810/MS3200	0.58.0.84/0.95kW	\$613.33/\$828.44/\$936.00

Portable Generators and Welders

Lincoln Electric:

Weldenpower 175	KA 1331	\$4,760
Weldanpower 230 + PB	KA 1390	\$7,274
Weldanpower 230 + DR	KA 1409-1	\$10,020
Ranger 405D	KA 1453-4	\$18,600

Heenan Engineering Company Ltd:

13 hp Honda petrol motor driven model HGW to drive electric power packs	\$3,189
Hydraulic power packs with 2 to 3 hp electric motors	\$1,351 to \$1,535
Hydraulic power pack with 6 hp petrol motor	\$2,635
Extension hose kits – 5 to 15 metres	\$190 to \$370

Pruning Equipment

Levin Sawmakers Ltd:

Pruning Chainsaws:	CS 2600/3400	26/34cc	\$595.00/\$617.78
Pruning Saws:			
Felco FE 62	Pull stroke pruning saw, 240 mm blade with safety sheath and belt loop		\$63.50
Gomtaro	Sheath saw, 180-300 mm with 7.5-8 teeth/ 30 mm		\$57.04 - \$68.28
Gomtaro – Finetooth	13 teeth 30mm for smaller branches and dry wood, 240 mm to 300 mm		\$61.74 - \$68.28
Masaru	Hvy duty saw with 5.5-7 teeth/30mm, 330/360mm		\$95.66/\$102.38
Natanoko 60	Two sizes; 300 & 330mm with 7.5 teeth per 30 mm		\$81.20/\$87.88
Super Accel 21	Lightweight folding pruning saw, 210mm blade with 7.5 teeth per 30 mm		\$46.51
Zubat	Taper ground blade, 240 mm to 330 mm		\$79.22 - \$91.10
Ibuki	Curved sheath saw for larger branches, 390 mm		\$128.16
Extension Pole Saws:			
Hayauchi Heavy duty extension pole saw in three sizes.			
	177-39 One extension pole, 2.28m to 3.7m		\$252.42
	178-39 Two extension poles, 2.35m to 4.9m		\$309.91
	179-39 Three extension poles, 2.44m to 6.3m		\$382.06
Zubat - Lightweight extension pole saw with Zubat 330 mm blade:			
	272-12 Extension pole saw, 1.75 m to 2.7 m		\$173.27
	272-15 Extension pole saw, 2.0 m to 3.3 m		\$190.39
SandvikP34-37	Telescopic tree pruner, 2.5 m extendable pole		\$97.78

Timbersaws Long Pole Pruning Saw - 2.9 m for 4 m pruning height		\$90.00
Loppers		
Kiwi	for branches up to 45 mm diameter	\$99.00
Prun-off	for branches up to 65 mm diameter	\$138.65
Rami Ladders	for branches up to 85 mm diameter	\$159.00
Arborist Ladder	3D climbing frame 2.6 m to 6.2 m	\$936.22 to \$11,442

Pasture Probes

Edwards and Williams Greenhouses Ltd.:

Pasture Probe	from \$995
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Implement Hitches

Taupo Engineering Ltd: (North Island prices including freight)

Heavy Duty 3 point linkage instant hitch	\$569
Front end loader instant hitch	\$572
Implement saddles	\$170

Effluent Pond Stirrer (2000 prices)

Pond Stirrer	\$3,744
Stirrer Pump	\$1,824

Stump Chippers and Log Splitters

Giltrap Engineering: (Prices include freight in North Island only)

Hydraulic Woodsplitter – 3 point linkage	\$2,625
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2.20.22 Safety Equipment

Croplands Equipment Ltd:

Kasco helmet and portable filter	\$1,346
Kasco spray helmet	\$475
Breathalon spray suit	\$220

N.Z. Safety Limited:

Overalls	\$49.68 to \$63.36
Overtrousers PVC	\$89.95
Coveralls Breathalon	\$170.25
White horticultural coverall	\$129.90
Yellow coverall	\$112.00
Earmuffs – grade 4	\$20
Antifog Goggles	\$14
Glove Nitrile Fabric/PVC	\$10/\$5
Mask Dust Moldex 1100	\$0.60
Modex Mask 2200 series	\$2.40 to \$7.05
Overalls bib	\$49.68
Parka PVC	\$25 to \$135
Boots	\$70 to \$230

Gumboots	\$45
Browguard	\$30
Half mask spray kit (code 8112)	\$67

Levin Sawmakers Ltd:

Arborist chainsaw trousers	\$180.00
Chainsaw trousers	\$115.45 to \$129.00
Chainsaw chaps	\$132.45 to \$137.00
Protector safety hard hat with visor and peltor grade 4 - 5 muffs	\$124.45 to \$125.85
Jonsered hard hat with visor and muffs	\$99.00
Gloves - cotton lattice knitted glove with PVC stripes	\$3.75
- heavy duty leather glove	\$4.85
- western rigger gloves, leather	\$8.50
Safety Glasses	\$27.50 to \$34.50
- Skyper Supravision	\$26.05
- Forestry mesh goggles	\$33.50

Fire Extinguishers:

N.Z. Safety Limited:

Alsafe - stored pressure dry chemical

1.0 to 9.0 kg	\$69 to \$110
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2.20.23 Protection (crop)

Electro-Tek Engineering Ltd:

Scarecrow Gun Zon Mark 4	- complete unit	\$929 to \$973
	- gun only/timer only	\$535/\$225
	- tripod (3 sizes)	\$169 to \$213

Evergreen Horticulture and Hydroponics Ltd:

Birdnetting white or black	5m/10m x 100m roll	\$355.60/\$711.20
Birdnetting clips	Pack 200	\$38.96

Tarpaulins

Straitline Canvas:

Hay Covers	- cambicon (50 sq. metres)	\$20.63 per square metre
Trucks	- cambicon/PVC tarpaulin	\$20.63 per square metre

Palmer Canvas & Synthetics Ltd:

Size	(metric)	Pextra	Polyethylene
6 x 4 to 6 x 9	1.83 x 1.20 to 1.83 x 2.74	\$39 to \$68	\$29 to \$49
6 x 12	1.83 x 3.66	-	\$55
9 x 9 to 9 x 24	2.74 x 2.74 to 2.74 x 7.32	\$78 to \$191	\$56 to \$133
12 x 15 to 12 x 24	3.66 x 4.57 to 3.66 x 7.32	\$159 to \$274	\$111 to \$148
15 x 21	4.57 x 6.40	\$224	\$152
18 x 15 to 18 x 36	5.49 x 4.57 to 5.49 x 10.98	\$208 to \$414	\$143 to \$276
24 x 21 to 24 x 36	7.32 x 6.40 to 7.32 x 10.98	\$338 to \$535	\$227 to \$353

2.21 BUILDINGS and STRUCTURES

2.21.1 Building Consent Charges

The Building Industry Authority Levy:

The rate of the levy is \$0.65 for every \$1000 (or part thereof, including GST) of the estimated value of building work for which the consent is issued. Buildings with a total estimated value of less than \$20,000 are exempt from the levy. For example, there is no levy payable on building work with an estimated value of \$19,000 but for work valued at \$21,000 a levy of \$13.65 will be charged. The levy can only be changed by an amendment to the Building Act 1991.

The Building Research Levy:

This levy is also chargeable on building consents for building work with an estimated value of greater than \$20,000. It funds research projects carried out by *BRANZ* (the *Building Research Association of New Zealand*). The rate is currently \$1 for every \$1000.

2.21.2 Dairy Sheds

The cost of building dairy sheds varies considerably depending on type of shed, availability of materials and labour, building site (completely new or conversion of existing shed), access to electricity and water, to name but a few factors.

Rakaia Engineering:

Herringbone

Costs for building under full contract, range from approximately \$6,000 to \$7,000 per bail. This price includes the building and yard, power and plumbing, effluent disposal, tanker track and site works, but not milking plant.

For example: 30 bail Herringbone

Building contract	\$5,800 per bail
Site preparation and power	\$570 per bail
Effluent disposal	\$434 per bail
Total cost	\$6,808 per bail

Rotary Turnstyle

Costs for dairies which involve all buildings, platform and yards and associated works range from \$6,000 to \$7,500 per bail (excluding milking plant).

Building cost estimates: (depends on preferred style and type of material used)

Building (complete including all rooms and concrete)	\$3,000 to \$4,000 per bail
Platform and associated works	\$1,500 to \$1,600 per bail
Electrician	\$400 to \$500 per bail
Plumber	\$240 to \$300 per bail
Yard pipework and associated gates	\$400 to \$900 per bail
Earthworks (typically 3,500 square metres)	\$3.50 to \$4.00 per square metre

Complete Sheds: (including equipment)*DeLaval Turn-Styles® Rotary Milking System:*

Average Project Costs: (000's)	Platform Size (bails)					
	28	32	36	40	50	60
Building:	\$70 - \$100	\$80 - \$105	\$84 - \$110	\$100 - \$130	\$120 - \$160	\$130 - \$180
Yard Concrete	\$15 - \$17	\$16 - \$18	\$19 - \$20	\$20 - \$22	\$26 - \$28	\$31 - \$34
Yard Pipe Work	\$11 - \$12	\$11 - \$13	\$13 - \$15	\$14 - \$16	\$18 - \$20	\$22 - \$24
Electrical	\$9 - \$14	\$10 - \$15	\$11 - \$16	\$12 - \$17	\$16 - \$20	\$18 - \$25
Plumbing	\$5 - \$9	\$6 - \$10	\$6 - \$10	\$7 - \$11	\$7 - \$11	\$8 - \$12
Platform and Milking Equipment	\$89 - \$121	\$100 - \$138	\$105 - \$154	\$129 - \$177	\$159 - \$218	\$188 - \$267
Total	\$199 - \$273	\$224 - \$299	\$238 - \$325	\$282 - \$373	\$346 - \$437	\$397 - \$542
Per bail	\$7.100 - \$9.750	\$7.000 - \$9.350	\$6.625 - \$9.030	\$7.000 - \$9.030	\$6.900 - \$8.700	\$6.600 - \$9.300

Not included: - Site preparation, all weather access to site, water supply to site, power supply to site, effluent disposal from site

Milking Equipment*(See also Section 2.3.12, Dairy Shed Expenses)*

Costs for milking equipment range from approximately \$1,500 to \$3,500 per bail (some fully automated equipment costs more).

DeLaval:

Complete milking plant, from cluster to delivery line including jetter wash system but excluding water heaters, plumbing and electrical.

	\$ per cluster
Standard	\$1,600
Premium	\$1,800

2.21.3 Deer Sheds*Kean Deer Yards:*

Red Deer Complex:	
Sheds, price includes stamped concrete floor, nova-lite panels in roof, spouting and downpipes, walls clad 150 x 40 RS H3 7.5x7.5m - 9x9m	\$11,000 to \$15,800
Shed internals, 6 various plans available, example of two plans:	
Plan B - 2.4m ¼ circle, 3m workrace, 6 internal subdivision panels, 1.8m door, 4 x 1.2m doors.	\$7,600
Plan D - 4.5m ½ circle, 3m workrace, 7 internal subdivision panels, 1.8m door, 4 x 1.2m doors, 0.8m door, 0.8m triangle	\$9,740

Converting an existing shed would cost approximately 50% of the cost of a new shed.

2.21.4 Woolsheds

C & F Industries: Prices ex-depot Carterton

Crossflo Woolshed -	
Standard 3 Stand	\$48,979
Each Additional Shearing Stand	\$4,172
Each Additional Woolroom Bay	\$4,260
Each Additional Yard Bay	\$3,924
Raised Board	\$1,158

Calder Stewart Industries Ltd:

Woolsheds typically cost \$280 to \$300 per square metre to erect. Covered yards (building component only - not including cost of yards) cost \$65 to \$75 per square metre.

Woolaway Holdings Ltd:

Basic level shearing board sheds cost between \$289 to \$ 408 per square metre to erect. Basic raised shearing board sheds cost between \$296 to \$418 per square metre to erect. These costs exclude cartage, electrical, plumbing and internal painting. Basic covered yards excluding sheep yards and gates vary between \$75 to \$85 per square metre.

2.21.5 Stockyards - Cattle

Price varies markedly with capacity and design (number of gates etc).

Yards with a 50 head capacity at least \$6,500 (through to \$50,000 for 500 head).

Equipment

Stockyards Inc: (ex Te Kauwhata)

Slam gate catch	\$34
Single/Double catch plate	\$6/\$9
Sliding gate	\$334
Automatic backing gate/rail	\$256/\$224
Creep backing rail - 0.750/1.200	\$246/\$304
Catwalk bracket incl bolts and screws	\$32
Catwalk mesh	\$4 per metre
Race narrowing clips	\$4
Race hoop	\$57
Race/Vet gate – 0.7	\$225
Diversion gate – 1.1	\$235
Draft gate – 1.6	\$245
Yard gates – 2.4	\$266
Anti-rustler gate	\$295
Mobile Yards	
Panels	\$285
Race frame hoops	\$165
Loading race	\$2,187

Loading Race

C & F Industries:

Cattle loading races	\$1,769
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Headbails

Holdem Cattle Handling Equipment Ltd:

Holdem Camira calf bail	450mm wide, ideal for calves up to 3 months, race width 400-500mm	\$399.95
Holdem basic head bail	Good for light work, race width 600-720mm	\$599.95
Holdem Senator head bail	800mm wide, race width 720-900mm, left or right hinged	\$799.95
Holdem Statesman head bail	660mm wide, fitted with Holdem ratchet release system, left or right hinged, race width 600-720mm	\$699.95
Holdem Slam-Close latches	Fully galvanised, wood or steel gates	\$59.95-\$79.95
Holdem nose bar attachments	Attaches to all models of bail, 3 sizes	\$149.95
Holdem anti-backing ratchets	1200mm long, fits any gap between rails of 125-225mm	\$299.95
Holdem automatic anti-backing arm		\$299.95
Holdem sliding gates	Used to hold stock on a weighing platform	\$599.95

Stockyards Inc: (Prices are ex -Te Kauwhata)

Manual 'V'	\$1,095
Warwick Headbails Drover	\$2,800

See also *Section 2.3 16 Stock Management*

Crushes

Stockyards Inc: (Prices are ex -Te Kauwhata)

Warwick Cattle Crush - Drover models	\$6,800/\$7,400
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2.21.6 Stockyards - Deer

Kean Deer Yards:

Outer Yards, various plans available	
Plans D,E and F - 40 metres yard walls, 3.6m gate, 3 x 3m gates, 1.8m gate, loading ramp	\$9,135

Yards with 500 head capacity (9m x 7.5m) would cost in the region of \$18,000 to \$25,000; this would include some holding pens outside the shed.

Equipment*Kean Deer Yards:*

Gates	1.2m wide 2.2m high	\$160
	2.4m wide 2.2m high	\$320
	3.6m wide 2.2m high	\$460
Gate catches		\$16.50

Stockyards Inc: (ex Te Kauwhata)

Slam gate catch deer	\$23
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Loading Race*Kean Deer Yards:*

Work and weigh race, 3 m long x 800 m wide, curtain	\$1,950
Swinging work race, part of large pen, push into race situation, 2.7m gate	\$800
Scale race, weigh, record, and draft from one position.	\$1,650
Loading ramp, free standing	\$1,650

Headbails – See Section 2.3.16**Crushes***C & F Industries:*

Deer Crush	\$5,786
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Heenan Engineering Company Ltd:

Heenan Workroom Hydraulically Controlled Deer Handler	
Standard Model – fits between walls 3.1 m apart	\$7,035
Short Model – fits between walls 2.6 m apart	\$6,490
Wedge Wall	\$1,150
Semen Collection Facility Available	\$2,150

Kean Deer Yards:

Crushes		
Circular crush pens, steel and plywood construction	- Full Circle	\$3,850
2 revolving and, up to 8 exit doors, free standing, full circle 4m.	- Half Circle	\$2,750
	- Quarter Circle	\$1,500
Octagon	4 x 800mm walls	\$2,250
Fallow deer crush		\$1,650
Side loading crush, portable, padded		from \$2,250

2.21.7 Stockyards - Sheep

Price varies markedly depending mainly on capacity.

Yards with 1000 ewe capacity about \$12,000 to \$15,000.

Yards with 5000 ewe capacity about \$25,000 to \$35,000.

Portable 10' Sheep Yard – includes 40 x 5' alloy gates, diamond gate, L posts and 3 section, single land handling/drench race	\$13,743
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2.4 yard gate	\$195.00
1.8 diamond gate	\$165.00
1.2 drafting gate	\$145.00
Slam gate catch	\$23.00
Race back stop	\$95.00
Sliding gate (sheep)	\$185.00
Drop gate (sheep)	\$175.00

Sheep - With adjustable undercarriage, removable drawbar, pneumatic tyres	\$1,832
- Ramp only	\$976

Complete Pen with Single Side Race 2.4m x 2.4m	\$520
Complete Pen with Double Side Race	\$612
- extra panel, 2.4m	\$76
- extra panel with drafting gate, 3 m	\$110

4 Bay	\$830
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203 micron, 4 year warranty greenhouse covers constructed from \$28.80 per square metre

Propagation: (Semi-commercial) Truss design, twinskin, ridge vent for full length, 1 door.

Sizes	4.1 x 6m/8m/10m	\$2,731/\$3,126/\$3,521
	4.1 x 12m/14m/16m	\$3,917/\$4,312/\$4,708

Colonial Series: (home gardener)

Single skin truss design all steel, aluminium framing, 1 x sliding door, and louvre glass window kits include ridge vent on two largest sizes.

Sizes	2.5m x 2.4m/3.6m/4.8m/6.0m	\$843/\$967/\$1,250/\$1,376
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Harford Greenhouses:

Harford Propagator, single vent, 2.1 metre column, no gutters:		
6 metres x 9/12/15 metres long		\$4,370/\$5,177/\$5,877
9 metres x 12/15/18/21 metres long		\$6,177/\$6,975/\$7,890/\$8,865
Harford Maxi Span, twin vents, 9.2 metre span, 2.1 metre column:		
24/30/36/48 metres long		\$9,845/\$11,386/\$13,100/\$16,100
Harford Super Maxi Span, twin vents, 12.5 metre span, 3.5 metre column:		
24/30/36/48/60 metres long		\$21,148/\$24,233/\$27,317/\$33,420/\$39,822
Sawtooth		\$29 per m ²
Budget Span		from \$27.00 per m ²
Crop topper		from \$20 per m ²
Sliding doors		\$350 per set
Wind and temperature controllers		\$1,020 to \$3,200

Kerilea Horticultural Systems Ltd:

All frames priced and sold in packs of 25 units. Price ex factory Levin.

Lo-Tunnel Cloche Frames			Keri-Tough Cloche Plastic		
Frame Width	Frame Height	Price per Pack	Roll Width	Roll Length	price per roll 50µ/80µ
0.6m	0.3 m	\$78.55	1.12 m	250 m	\$69.76/\$111.06
0.8m	0.5 m	\$98.33	1.62 m	250 m	\$100.95/\$161.52
1.0m	0.45 m	\$107.51	1.76 m	250 m	\$103.00/\$182.43
1.0m	0.55 m	\$116.94	1.96 m	250 m	\$122.09/\$195.35
1.5m	0.6 m	\$141.09	2.65 m	150 m	\$95.10/\$158.94
1.5m	0.75 m	\$156.95	2.65 m	150 m	\$95.10/\$158.94
2.0m	0.9 m	\$184.95	3.4 m	100 m	\$84.72/\$135.53
0.6m	0.55 m	\$98.33	1.62 m	250 m	\$100.95/\$161.52
0.8m	0.65 m	\$116.94	1.96 m	250 m	\$122.09/\$195.35
1.0m	1.0 m	\$156.95	2.65 m	150 m	\$95.10/\$158.94
1.3m	0.8 m	\$143.83	2.65 m	150 m	\$95.10/\$158.94
1.8m	0.9 m	\$173.91	3.4 m	100 m	\$84.72/\$135.53
End Frames (per single unit)		\$12.50 to \$15.10			
Micro Mesh					
0 m ² to 199 m ²					\$1.40 per m ²
200 m ² to 399 m ²					\$1.12 per m ²
400 m ² and over					\$1.08 per m ²

Note: Cut lengths available in 2m, 3m and 4m wide.

Tunnelworld:

Townhouse Model:	
2.3m x 2m to 2.3m x 6m - all with 2 covers, solid ends	\$1,108 to \$1,462
Mini Tunnelhouses	
3m x 4m to 3m x 30m (2m height) - all one cover only	\$1,333 to \$4,302
4m x 4m to 4m x 30m (2.55m height) - all one cover only	\$1,873 to \$5,677

Exal Industries Ltd:

Faber Glasshouses (South Island)	from \$70 per m ²
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Greenhouse Film*Evergreen Horticulture and Hydroponics:*

Durafilm Saver D3 - 2, 3, 4 & 7 m widths (100 micron) 50m roll	\$1.00 per square metre
Durafilm Saver D3 – 4, 6, 7 and 8 m widths (100 micron)	
up to 74 square metres	\$1.80 per square metre
75 to 199 square metres	\$1.40 per square metre
over 200 square metres	\$1.00 per square metre
Durafilm Super D4 - 3, 4 and 8 metre widths (152 micron)	
up to 74 square metres	\$2.40 per square metre
75 to 199 square metres	\$2.20 per square metre
over 200 square metres	\$1.90 per square metre
Duratough – 2, 3.5, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 14 metre widths (200 micron)	
up to 74 square metres	\$2.20 per square metre
75 to 199 square metres	\$1.90 per square metre
over 200 square metres	\$1.64 per square metre

Placemakers:

Polythene Black 80 micron 1m/2m x 100m	\$63.99/\$123.99 per roll
Agpac Polythene black 125 micron 4m x 25m	\$57.97 per roll
Agpac Polythene black 250 micron 4m x 50m	\$116.63 per roll
Sellotape PVC joining tape 48mm x 30m 1410	\$4.33 per roll

Cosio Industries Ltd:

Black Polythene	
80µ, 1 to 4m width, 50m/100m length	\$25.05 to \$49.53
125µ, 1 to 10m width, 25 to 100m length	\$35.60 to \$283.50
250µ, 2 to 4m width, 25m/50m length	\$56.18 to \$112.35
Clear Polythene	
50µ, 2m/4m width, 50m/100m length	\$50.25
80µ, 1 to 5m width, 50m/100m length	\$32.28 to \$97.10
125µ, 1 to 4m width, 50m/100m length	\$51.20 to \$97.10
250µ, 2m/4m width, 50m length	\$96.60/\$193.20
Polycrop Eva	
125µ to 200µ, 2m/4m x 50m rolls, clear	\$120.75 to \$365.25

Polygro Eva	
Long life, antifog, 3 layer film, 200μ, 4-12m wide, 50/100m rolls	\$339 to \$1,832
Titan™ Reinforced Polythene Film 2m x 50m roll, clear	\$324.00
Greenhouse Film Lock	
Single/Twin Ali 4m length, includes Ali or plastic insert	\$13.30 to \$41.91
Steeletight screws 12 x 20 per 100 each	\$11.79
Timbertight screws 12 x 25 per 100 each	\$12.10
Clips to secure insert, price per 100	\$4.80
Hydrocil	
Reflective films for floors and hydroponics, 150mu/105mu	\$88.00 to \$220.00
Black polythene adhesive tapes	
Per roll	\$2.70 to \$7.00
Per carton of rolls (12, 24 or 36 rolls)	\$84.00 to \$126.00
Ducting	
Layflat polythene tube, clear	\$35.00 to \$39.80
Frametape	
Greenhouse film protection, white or clear	\$10.80 to \$25.30
Greenhouse repair tapes	
48mm/96mm x 25m UV stable tape, clear	\$9.68/\$18.60
Greenhouse shading paint White or white/pink, 1 / 4 / 20 litre	\$15.00 to \$269.38

Glasshouse Heating

Evergreen Horticulture and Hydroponics Ltd:

Propagation Heating	
Soil heating cable "Camplex"	\$101 to \$648
Thermostat ET 0° – 40° standard	\$75.00
Thermostat ET 0° – 40° fitted with phase interruption plug	\$96.00

Exal Industries Ltd:

ESWA Warming cables

Cable Size	without thermostat	with thermostat
18 metres, 230 watt	\$149.00	\$214.00
28 metres, 350 watt	\$197.50	\$262.50
56 metres, 700 watt	\$317.50	\$382.50
94 metres, 1150 watt	\$481.50	\$546.50
Water proof glasshouse thermostats:		
ET 0 to 40 thermostat, standard		\$75.00
Fitted with phase interruption plug		\$96.00

Edwards and Williams Greenhouses Ltd.:

Environmental Controllers	from \$2,900
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Richard Anderson Greenhouses Ltd.:

Propagation Heating	
- soil heating cables	\$101 to \$650
- Heatwave heating panels (made to order) e.g. 1m x 5m	\$600

Aquaheat Industries Ltd:

Greenhouse heaters. Aquaheat® MTP series have a size range of 44 kW to 1172 kW with the option of diesel oil, natural gas, TLP gas or LPG as fuel. As a guide, Aquaheat® MTP400D vertical up-flow, complete with fan/motor set for 100 Pa system resistance and a diesel oil burner costs \$8,193.

Glasshouse Ventilation

Exal Industries Ltd:

Exal ventilation fansets:		
500 series, fan plate model/wall fan model, 2.34 m³ per second		\$341/\$460
600 series, fan plate model/wall fan model, 900 rpm, 3.06 m³ per second		\$600
1200 series, 380 rpm, 9.81 m³ per second		\$1,100
Turbofan:		
500 series turbofan, aluminium, 45 metre throw		\$310

Kanters Engineering & Machinery Ltd:

Greenhouse Fans – 180 watt	\$289
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Evergreen Horticulture and Hydroponics:

Vortex – Horizontal greenhouse fan	from \$310
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Glasshouse Watering

Cosio Industries Ltd:

Aquafelt capillary watering mat		
Reinforced, 1050mm to 3200mm x 25m rolls, white		\$169.95 to \$479.95
Poly coated, 1050mm to 3200mm x 25m rolls, white		\$139.55 to \$385.35

Evergreen Horticulture and Hydroponics:

Propagation		
Misting Controller	Balance Arm	\$75.00
	Minimist/ NZH Smartmist	\$191.00/\$391.11
Transformer, 24 volt		\$41.25
Solenoid Valves, 24 volt x 20 mm		\$36.30
Misting Nozzles		range from \$1.50
Plant Feeding		
Fertigation Nutrient Injectors	Venturis Mazzei	from \$205
	Automatic Proportional Feeders	from \$1150
Solar Integrator		from \$590
Irrigation Controllers		from \$154

Exal Industries Ltd:

Mist propagation controller: Balance arm mist controller	\$75.00
24 volt transformer	\$42.00
24 volt x 20 mm solenoid valve	\$38.00
Misting nozzles, spaced at not greater than 900 mm on 300 mm	\$4.50 each
PVC risers. 0.8 mm x 15 mm	

Richard Anderson Greenhouses Ltd:

Misting Equipment	
- Minimist system	\$390
- Mist timer	\$415
- Mist Weaner	\$480
- Microcool fogging systems (designed to order)	from \$5000
- "Sulfume" Sulphur Evaporators	\$120
- Misting Nozzles	\$9

2.21.9 Houses/Cottages

Versatile Buildings:

Cottage - Kitset Buildings (ex Christchurch)	
Riversider 2 Bedroom 43.2m ²	\$21,390
Riversider 3 Bedroom 56.2m ²	\$25,700
Crawford 2 Bedroom 59.4m ²	\$31,436
Crawford 3 Bedroom 72.4m ²	\$35,729
Homes - Erected Buildings	
Cottage Series	
Riversider	\$34,920
Crawford 2 Bedroom	\$51,984 to \$53,784
Tararua	\$54,644 to \$57,933
Two Bedroom Homes	
Sabine	\$55,711 to \$60,155
Wilkin	\$59,489 to \$63,900
Caples	\$59,533 to \$63,978
Three Bedroom Homes	
Glenroy	\$64,378 to \$69,756
Greenstone	\$64,867 to \$69,756
Cascade	\$67,711 to \$72,155
Hollyford	\$69,044 to \$73,489

2.21.10 Garages

Durobuilt:

All Steel:	
6m x 4m/6m/9m	from \$4,252/\$5,323/\$6,603
7.5m x 6m/9m/12m	from \$6,037/\$7,464/\$8,891
6m x 3m steel carport	from \$996
6m x 6m steel carport	from \$1,449
9m x 6m steel carport	from \$2,089

Versatile:

3.6m x 6.0m	\$3,900 to \$4,600
4.8m x 6.0m	\$4,800 to \$5,300
3.6m x 7.2m	\$4,400 to \$5,100
6.0m x 6.0m	\$5,500 to \$6,600

6.0m x 7.2m	\$6,100 to \$6,900
6.0m x 9.0m (separate sleepout/workshop attached)	\$12,700 to \$13,500
6.0m x 12.0m (multibay)	\$8,900 to \$9,900

2.21.11 Haybarns/Implement Sheds/Packing Sheds/Stables

Durobuilt:

Calf Rearing Shelters – 2.2m stud

6m /9m x 4m	from \$3,604/\$4,644
6m x 6m	from \$4,156
9m x 9m	from \$5,324

Implement Sheds

Small Block Implement Sheds - 3m wide bays, 3m stud, open one side

6m x 6m	2 bays	from \$4,373
	Extra bay	from \$1,276
7.5m x 6m	2 bays	from \$5,140
	Extra bay	from \$1,413
9m x 9m	3 bays	from \$7,724
	Extra bay	from \$1,689
12m x 10.5m	4 bays	from \$10,567
	Extra bay	from \$1,836
12m x 12 m	4 bays	from \$11,403
	Extra bay	from \$1,968

Farm implement sheds - all steel, 4 m wide bays, 3m stud, open one side

8m x 7.5m	2 bays	from \$8,827
	Extra bay	from \$2,489
8m x 9m	2 bays	from \$9,616
	Extra bay	from \$2,649
8m x 10.5m	2 bays	from \$10,636
	Extra bay	from \$2,933
8m x 12m	2 bays	from \$11,150
	Extra bay	from \$3,133

Lean-to implement sheds - open across front

6m deep, 4.9 m bays	2 bays	from \$5,658
	Extra bay	from \$1,751
7.5m deep, 4.9 m bays	2 bays	from \$6,476
	Extra bay	from \$1,957

Commercial Buildings

All steel, 4.0 m bays

17m x 15m	4 bays	from \$25,972
	Extra bay	from \$4,358
17m x 18m	4 bays	from \$29,317
	Extra bay	from \$4,951
17m x 21m	4 bays	from \$31,524
	Extra bay	from \$5,057

Extras	
Rolla Door	\$1,815
Egress Door	\$594
100mm concrete floor	\$40.89/m ²

Formsteel Industries:

Kitset Buildings, three sides enclosed, Clearspan, gable roof, galvanised steel frame, 6.0 m or 6.6 m bays, zinc/aluminium coated or Colour Steel clad

Length x Width	3.0 m stud		4.0 m stud	
	Z/A	C/S	Z/A	C/S
12.0 x 6.0 m	\$6,614	\$8,182	\$7,188	\$8,957
13.2 x 6.0 m	\$7,110	\$8,829	\$7,636	\$9,565
18.0 x 6.0 m	\$8,923	\$11,106	\$9,665	\$12,096
19.8 x 6.0 m	\$9,950	\$12,311	\$10,745	\$13,368
12.0 x 7.2 m	\$7,544	\$9,343	\$8,196	\$10,215
13.2 x 7.2 m	\$8,487	\$10,444	\$9,163	\$11,349
18.0 x 7.2 m	\$10,586	\$13,021	\$11,491	\$14,203
19.8 x 7.2 m	\$11,778	\$14,446	\$12,646	\$15,595
12.0 x 9.0 m	\$9,180	\$11,303	\$9,969	\$12,340
13.2 x 9.0 m	\$9,723	\$11,992	\$10,536	\$13,063
18.0 x 9.0 m	\$12,815	\$15,669	\$13,790	\$16,940
19.8 x 9.0 m	\$13,654	\$16,728	\$14,666	\$18,050
12.0 x 12.0 m	\$11,155	\$13,789	\$12,070	\$15,000
13.2 x 12.0 m	\$11,946	\$14,795	\$12,846	\$16,000
18.0 x 12.0 m	\$15,814	\$19,374	\$16,926	\$20,829
19.8 x 12.0 m	\$16,826	\$20,588	\$17,977	\$22,096

Note: Fully enclosed options available with roller door included. Prices range from \$8,117 to \$26,406. Also roof overhang options available.

C & F Industries:

Haysheds (Kitset)

Bays	Bales	Circular	Erect	Lean - to	Erect
1	500 to 550	-		\$4,715	\$1,250
2	1000 to 1100	\$4,454	\$1,300	\$6,782	\$1,460
3	1500 to 1650	\$6,282	\$1,520	\$8,848	\$1,685
4	2000 to 2250	\$8,118	\$1,710	\$10,920	\$1,810
5	2500 to 2750	\$9,927	\$1,900	\$12,985	\$2,085
6	3000 to 3250	\$11,778	\$2,150	\$15,050	\$2,290
End Wall		\$1,366	\$680		
Door End Wall		\$2,732	\$940		

Circular Arch Hayshed 3.6 m lean-tos, to fit

First two bays both sides	\$3,800
Each additional bay	\$1,467

Lean-to Implement Sheds

	Shed	Erect	Canopy	Erect
1 bay	\$4,115	\$1,200	\$570	\$255
2 bays	\$6,015	\$1,400	\$1,004	\$355
3 bays	\$7,918	\$1,600	\$1,438	\$455
4 bays	\$9,833	\$1,800	\$1,870	\$555
5 bays	\$11,730	\$2,000	\$2,304	\$655
6 bays	\$13,626	\$2,200	\$2,738	\$755

Packing Sheds (9m span, 4 ½ m stud)

	Lean-to	Gable
2 bays/3 bays	\$12,169/\$15,815	\$12,567/\$16,327
4 bays/5 bays	\$19,460/\$23,105	\$20,176/\$23,980
6 bays	\$26,751	\$27,784

Versatile Buildings:

	Zincalume	Coloursteel
9.0m x 6.0m kitset, 3 bay	\$3,488	\$3,889
13.5m x 6.0m kitset, 3 bay	\$4,428	\$4,960
14.4m x 6.0m kitset, 4 bay	\$4,758	\$5,323
Erection cost are approximately \$500 to 600 per bay		

Calder Stewart Industries Ltd:

Prices vary depending upon a number of design factors.	\$ per sq m
Implement sheds	\$110 to \$130
Hay barns	\$100 to \$120
Farm workshops	\$160 to \$210
Packing sheds	\$150 to \$200
Growing sheds	\$150 to \$190
Storage buildings	\$100 to \$180

McAlpines: (Prices ex Rangiora Yard in kitset form) Note: 1 bay = 4.5m

6.0 m deep, 4.2 m to 3.9 m high						
	0.5kPa Snow			1.0kPa Snow		
	37m/s	44m/s	50m/s	37m/s	44m/s	50m/s
2 bay	\$3,610	\$3,797	\$4,475	\$3,765	\$3,952	\$4,620
3 bay	\$4,735	\$4,961	\$5,880	\$4,968	\$5,194	\$6,113
4 bay	\$5,877	\$6,142	\$7,334	\$6,187	\$6,452	\$7,644
5 bay	\$7,056	\$7,361	\$8,738	\$7,444	\$7,748	\$9,126
6 bay	\$8,181	\$8,325	\$10,149	\$8,647	\$8,990	\$10,615
6.0 m deep, 3.6 m to 3.3 m high						
	0.5kPa Snow			1.0kPa Snow		
	37m/s	44m/s	50m/s	37m/s	44m/s	50m/s
2 bay	\$3,384	\$3,477	\$4,221	\$3,539	\$3,632	\$4,376
3 bay	\$4,453	\$4,566	\$5,585	\$4,685	\$4,798	\$5,818
4 bay	\$5,538	\$5,670	\$6,988	\$5,858	\$5,981	\$7,297

5 bay	\$6,661	\$6,813	\$8,342	\$7,049	\$7,201	\$8,730
6 bay	\$7,906	\$8,074	\$9,702	\$8,195	\$8,367	\$10,167
7.5 m deep, 4.2 m to 3.825 m high						
	0.5kPa Snow			1.0kPa Snow		
	37m/s	44m/s	50m/s	37m/s	44m/s	50m/s
2 bay	\$4,225	-	-	-	-	-
3 bay	\$5,556	-	-	-	-	-
9.0 m deep, 4.2 m to 3.75 m high						
	0.5kPa Snow			1.0kPa Snow		
	37m/s	44m/s	50m/s	37m/s	44m/s	50m/s
2 bay	\$4,778	-	-	-	-	-
3 bay	\$6,294	-	-	-	-	-
4 bay	\$7,807	-	-	-	-	-

Woolaway Holdings Ltd: Prices exclude freight, concrete floor, travel and accommodation.

Implement sheds/ Hay barns (3.0 to 3.6 m high)

Two bay	54m ²	\$4,972
Three bay	81m ²	\$6,428
Four bay	108m ²	\$7,957
Additional bays	27m ²	\$1,529
Two bay back to back	108m ²	\$8,280
Three bay back to back	162m ²	\$10,857
Four bay back to back	216m ²	\$13,375
Additional bays	54m ²	\$2,517

2.21.12 Bridges

C & F Industries: (ex-depot Carterton)

3.6 m x 3.3 m wide	\$1,526
6 m / 9 m /12 m x 3.8 m wide	\$6,208/\$8,957, \$12,819
15 m /18 m /21 m /24 m x 3.8 m wide	\$18,209/\$23,320/\$28,444/\$36,406
Hand Rail Posts	\$68

2.21.13 Grain Silos

Farm Sized Silos

Dan Cosgrove Ltd:

Model	Diam (m)	Overall Ht (m)	Bushel Capacity	Metric Tonnes Wheat	Barley	Capacity m ³	Wholesale Price
15/3	4.58	3.78	1422	38	32	47.73	\$3,100
15/4	4.58	4.59	1820	49	41	61.06	\$3,530
15/5	4.58	5.41	2222	60	50	74.56	\$3,880
15/6	4.58	6.22	2620	71	59	87.89	\$4,400
18/3	5.49	4.04	2107	57	48	70.68	\$3,830
18/4	5.49	4.85	2678	73	60	89.86	\$4,330
18/5	5.49	5.67	3257	88	74	109.27	\$4,880
18/6	5.49	6.48	3829	104	87	128.44	\$5,500
18/7	5.49	7.29	4400	119	100	147.61	\$6,150

18/8	5.49	8.1	4972	135	113	166.78	\$6,960
18/9	5.49	8.92	5550	151	127	186.19	\$7,790
21/5	6.41	5.93	4535	123	103	152.13	\$6,100
21/6	6.41	6.74	5302	144	121	177.85	\$6,960
21/7	6.41	7.55	6081	165	139	203.98	\$7,570
21/8	6.41	8.36	6860	186	157	230.11	\$8,600
21/9	6.41	9.18	7648	207	175	256.56	\$9,500
24/5	7.32	6.2	6012	163	137	201.69	\$7,400
24/6	7.32	7.01	7029	191	160	235.78	\$8,350
24/7	7.32	7.82	8046	218	184	269.86	\$9,350
24/8	7.32	8.63	9061	246	207	303.95	\$10,200
24/9	7.32	9.45	10090	274	232	338.45	\$11,300

All prices are ex Timaru factory. All silos are supplied complete with walk-in doorways, external wall ladder and dyna bolts. No safety cage is included. Silo ladder fits down to 1.6m from silo base.

Transportable Silos

Dan Cosgrove Ltd:

Model	Diam. (m)	Overall Ht (m)	Bushell Capacity	Wheat (t)	Barley (t)	Oats (t)	Maize (t)	Price
121	3.66	3.31	452	13	12	9	12	\$3,930
122	3.66	4.21	695	20	17	13	18	\$4,120
123	3.66	4.93	938	27	23	19	24	\$4,450
124	3.66	5.74	1191	33	29	24	30	\$4,950
125	3.66	6.55	1424	40	35	29	37	\$5,180
126	3.66	7.36	1667	46	41	34	43	\$5,500

Price includes free delivery 80 km from Timaru to Rakaia. \$2.20 per kilometre thereafter.

Pilot included in price, \$100 saving if client pilots silo.

Silos come complete with external wall ladder and bagging-off chute.

Feed Silos

Dan Cosgrove Ltd: All prices ex Timaru factory.

Tonnes Wheat	Tonnes Barley	Cubic metres	Overall Height	Price
1.83 diameter with 60 degree centre draw hopper to 450 mm opening				
3.13	2.67	4.09	3.28	\$2,500
4.77	4.07	6.23	4.09	\$2,600
6.41	5.46	8.37	4.91	\$2,700
2.74 diameter with 45 degree centre draw hopper to 150 mm opening				
6.92	5.90	9.03	4.30	\$3,230
10.59	9.03	13.82	5.11	\$3,400
14.26	12.16	18.62	5.93	\$3,620
2.74 diameter with 60 degree centre draw hopper to 450 mm opening				
8.41	7.17	10.98	4.19	\$3,260
12.08	10.30	15.77	5.00	\$3,430
15.75	13.43	20.57	5.82	\$3,650

2.21.14 Diesel Tanks

Ross Irving Ltd: Price varies with each application depending on the fittings required etc.
500 litre to 2000 litre tanks \$560 to \$1800 each

2.21.15 Killing Sheds

Concrete

Hynds Pipe Systems: (McKendrys Christchurch)

Small – 1.97m diameter x 1.99m high	\$1,690
Medium – 2.67m diameter x 2.4m high	\$2,270
Large – oval shape at 3.1m wide and 3.8m long x 2.72m high	\$3,090
All include door, vents, rail and fittings.	

2.21.16 Piggeries

C & F Industries: (circular arch)

Bays	Length	
2/3	6 m/9 m	\$14,113/\$17,202
4/5	12 m/15 m	\$20,277/\$23,332
6	18 m	\$26,380
Vents – each		\$1,026

2.21.17 Stock Shelters

C & F Industries:

Calf Shelters	\$2,726
Goat Shelters	\$1,348

Sawdust for calf sheds: One Canterbury contractor charges \$5 to \$6 per m³ plus cartage.

2.21.18 Dog Motels

Aabaas Industries: (Prices are ex Christchurch factory)

	Motel	Kennel	Run
Small/Medium	\$300/\$440	\$150/\$225	\$150/\$215
Large/Extra large	\$485/\$517	\$255/\$270	\$230/\$247

2.21.19 Building Materials

Roofing

Placemakers:

Corrugated Zinalume .40 762mm CVR 1.8m/3.6m	\$18.33/\$36.68 per metre
Coralite XS Corrugated Clear 1800mm/3600mm x 762mm	\$30.21/\$59.55 per metre
Marley Stormcloud spouting 3m/5m MS1.3/1.5	\$19.99/\$34.39 per metre
Marley Stormcld Spouting Joiner MS5	\$1.35 each
Marley 65mm round downpipe 3 m RP65/RP80	\$15.60/\$18.36 per metre

Cement Products

Higgins Redimix Concrete: (ex-Palmerston North and Feilding)

Concrete Grade	19 mm (\$ per cu.m)	12 mm (\$ per cu.m)
10 / 15 / 17.5 / 20 Mpa	\$140 to \$155	\$145 to \$160
25 / 30 / 35 / 40 Mpa	\$165 to \$204	\$170 to \$209
Blockfill/Kerb Mix		\$165/\$183
Accelerator (calcium chloride)	per 1%	\$4.00 per m ³
Non Chloride Accelerator	per 1%	\$7.00 per m ³
Superplasticiser		\$10.00 per m ³
Fibre Mesh		\$25.00 per m ³
Small load surcharge	- under 2.0 m ³	\$30.00 to \$45.00 per load
Dumpy Hire - \$45.00 per half day		

Firth Industries Ltd:

Hollow Masonry Blocks

Standard/Half/Bond Beam/Half High Standard	150 mm	200 mm
Christchurch/Auckland/Hamilton	\$2.21/\$1.96/\$1.74	\$2.68/\$2.29/\$2.00

Shingle Products

Laings Gardenmakers:

Premix	\$15.95 per full scoop
Plastering/Bedding/Cylone sand	\$19.95/\$18.95/\$14.50 per full scoop
Chip	\$15.95 per full scoop
Reject fine chip	\$9.95 per full scoop
20 mm stabilised topcourse	\$13.95 per full scoop
40 mm unstabilised topcourse	\$10.95 per full scoop
Ungraded/Graded rounds	\$8.95/\$11.95 per full scoop
Oamaru white scree	\$49.95 per full scoop

Fulton Hogan: (price per tonne)

Sealing Chip	\$16.43 to \$19.29
Special Chip SC10/SC12	\$10.00/\$11.79
Sand	\$16.77/\$24.26
Natural/Plastering	
Fill/Cyclone/2A	\$13.08/\$14.62/\$22.00
Premix (Blended) BM7 to BM20	\$15.00
Cement	\$12 per bag

Polythene - See Section 2.21.8

2.22 SHELTER and FARM FORESTRY COSTS

2.22.1 Seedling Trees

Allenton Nurseries Ltd: (Farmers, orchardists and trade suppliers only)

Alders	\$2.65 to \$5.25 each
Poplars	\$1.35 each (100 trees), \$1.20 each (1000 trees)
Pittosporum	\$2.80 each per 100

Appletons Tree Nursery:

	Price per 100	Price per 1000
Cupressus lusitanica	\$58 to \$63	\$450 to \$525
Cupressus macrocarpa	\$58 to \$63	\$450 to \$525
Eucalyptus nitens	\$72	\$640
Pinus radiata GF16 Open Pollinated	\$24	\$180
GF 17 OP	\$25	\$185
GF 17 Dothistroma resistant, OP	\$26	\$196
GF 19 OP	\$30	\$225
GF 20 Liquid Pollinated	\$32	\$237
GF+ 25 Control Pollinated	\$47	\$425
Poplar (rooted plants)	\$110 to \$180	\$900 to \$1500
Italian Alder (Alnus cordata)	\$113 to \$148	\$1020 to \$1330
Douglas Fir (25/50 cms)	\$50	\$450
Douglas Fir transplants (2yrs old)	\$65/\$85	\$585/\$765
Quercus (Oak) species	\$113 to \$148	\$1,020 to \$1,330

Gibbs Nurseries Ltd: Dannevirke (price is per 100)

Abelia (Chinese Floribunda)	\$176.00
Acacia spp (Wattle)	\$120.00
Alnus	\$195.56/\$244.44
Cedrus Deodara (Indian Cedar) 2 yr/3 yr	\$164.44/\$222.22
Chamaecyparis Lawsoniana 2 yr/3 yr	\$142.22/\$186.67
Cupressus all varieties 2 year trees	\$133.33
Eucalyptus species	\$115.56
Larix species (Larch)	\$155.56
Liquidamber	\$57.78 per 10
Pinus Radiata: 1yr (selected)/1.5yr (sturdy)/2yr transplanted	\$26.67/\$62.22/\$93.33
Pittosporum	\$222.22
Phormium/Varigated Hybrids	\$124.44/\$222.22
Populus spp. (Poplars)	\$173.33
Pseudotsuga menziesii (Douglas Fir) 2 yr/3 yr selected	\$120.00/\$164.44
Salix Matsudana (Willow)	\$173.33
Sequoia (Californian Redwood) 2 yr	\$176.00
Tree Lucerne (Tagasaste)	\$133.33

Ngongotaha Nursery: (Rotorua)

	Price per 100	Price per 1000
Acacia dealbata (Silver Wattle)	\$53	\$450
Acacia melanoxylon (Tasmanian Blackwood)	\$53	\$450
Betula pendular (Silver birch)	\$350	-
Casuarina species	\$165	-
Chamaecyparis lawsoniana (Lawson)	\$150	-
Cupressus (Macrocarpa and Lusitanica species)	\$53 to \$60	\$450 to \$530
Cupressocyparis leylandii (Leyland cypress species)	\$270	-
Cedrus deodara (Himalayan cedar)	\$300	-
Cryptomeria japonica (Japanese cedar)	\$165	-
Eucalyptus species	\$53	\$450
Larix kaempferi (Japanese Larch)	\$120	-
Leyland cypress (0.50 to 0.75 m)	\$270	-
Liquidamber styraciflua	\$300	-
Pseudotsuga menziesii (Douglas fir) 2 year	\$53	\$480
Pinus radiata - GF17 seedlings	\$28	\$180
- GF19 seedlings	\$30	\$200
- GF21 LP seedlings (liquid pollinated seed)	\$32	\$220
- GF Plus 25 nursery cuttings	\$45	\$420
- GF Plus 26 nursery cuttings	\$45	\$420
Quercus palustris (pin oak)	\$350	-
Sequoia (redwood) species	\$165	-
Thuja plicata (Western Red Cedar)	\$165	-

Waimea Nurseries: (Nelson)

Alnus cordata (Italian Alder)	\$7.80
Betula varieties (Birches)	\$8.90

All prices for 5 to 24 trees of one variety. Discounts apply for larger orders

Ford's Nurseries Ltd: (Christchurch)

	Price per 100	Price per 10
Acacia species	\$155.00	\$27.00
Alnus species	\$155.00 to \$350.00	\$27.00 to \$42.00
Betula (Birch) species	\$155 to \$350.00	\$27.00 to \$42.00
Cedrus deodara	\$110.00 to \$215.00	\$15.50 to \$31.00
Leyland Cypress	\$315.00	\$38.00
Cupressus species (1 year trees)	\$65.00 to \$155.00	\$7.50 to \$27.00
Cupressus species (2 year trees)	\$110.00 to \$215.00	\$15.00 to \$31.00
Eucalyptus nitens	\$90.00	\$15.00
Eucalyptus species	\$95.00	\$18.00
European Larch – 1 yr trees/2 yr trees	\$110.00/\$215.00	\$15.50/\$31.00
Picea (Spruce) species (2 year trees)	\$150.00	\$15.50 to \$31.00
Pinus Radiata	\$25.00 to 62.00	\$4.00 to \$7.50
Pinus (other species) (2 year trees)	\$50.00 to \$215.00	\$6.50 to \$31.00
Poplar species	\$120.00	\$20.00
Pseudotsuga menziesii (Douglas Fir)	\$50.00 to \$60.00	\$6.25 to \$7.75

Quercus (oak) species	-	\$42.00
Salix matsudana x alba (Pekin Willow)	\$120.00	\$20.00
Sequoiadendron gigantea (Wellingtonia)	\$150.00	\$25.00

2.22.2 Forestry Establishment and Tending Costs

The following figures have been kindly updated by *Janett & Associates Ltd.* Readers should note that costs vary markedly according to region and locality, size of woodlot, slope, access and vegetation etc. It is recommended that farmers seek advice from qualified persons before incurring any significant expenditure on forestry project work.

Likely costs for forest operations are:

Establishment

Spot spraying before or after planting	flat (easy) hill	14 to 18 cents per spot
(The above costs include chemical at 3 to 6 cents per spot)		15 to 22 cents per spot
Ripper hire		\$15 to \$25 per hour in use
Contract ripping		\$50 per km, or \$150 to \$200 per ha
Hand planting - radiata (bare rooted)	flat	15 to 20 cents per tree
	hill	20 to 30 cents per tree
- other (bare rooted)		20 to 35 cents per tree
- containerised stock		40 to 80 cents per tree

Seedlings see *Section 2.22.1.*

Nutrition

Hand fertilising (phosphate)	15 to 25 cents per tree
Aerial fertilising (phosphate) by helicopter	\$300 to \$340 per hectare
Aerial fertilising (nitrogen) by helicopter	\$300 to \$370 per hectare
Oversowing (grass/legumes) plus fertiliser by helicopter	\$320 to \$380 per hectare
Boron fertilising/Ulexite @ 50kgs/ha for 10 to 20 ha	\$80 to \$140 per ha applied

Tending

Pruning	- first lift	\$0.80 to \$1.20 per tree
	- second lift	\$0.90 to \$1.50 per tree
	- third/fourth lift	\$1.00 to \$1.70 per tree
Thin to waste	- first thin to 400 to 600 trees	\$120 to \$250 per ha
	- second thin to 200 to 300 trees	\$100 to \$150 per ha

Note: Hourly rate of \$15 to \$20 per hour, add \$3.50 per hour for chainsaw.

Fencing See *Section 2.19, Fencing Costs*

Fire Insurance

Available through major insurance companies and brokers. Usual cost range is \$10 to \$25 per ha per year depending on level of cover. Minimum charge of \$40 plus administration costs.

2.22.3 Logging and Transportation Costs

	Per tonne
Logging - Ground based logging	\$17 to \$24
- Cable logging	\$22 to \$30
- Helicopter logging, depends on flight time or distance	\$60 to \$120
Roading - Range from	\$0.67 to \$2.70
Log loading	\$1.50 to \$2.50
Log transport, average distance to mill or port	15 to 20 cents per km

2.22.4 Tree Planting Equipment

Levin Sawmakers Ltd:

Planting Spades:	\$49.64 to \$59.00
Length 960 to 980 mm, blade length 280 to 370 mm, blade width 90 to 170mm ,weight 2.55 kg to 2.77 kg	
Planting Frame	\$52.35

2.22.5 Shelter/Windbreak/Shade and Weed Cloth

Cosio Industries Ltd:

Shadecloth 30%	Green/White, 1 x 50m to 4 x 100m	\$97.95 to \$723.46
Shadecloth 50%	Green/White, 2 x 50m to 4 x 100m	\$241.80 to \$972.00
Shadecloth 70%	Green, 2 x 50m to 4 x 100m	\$291.15 to \$1143.15
Aluminet Thermo Reflective Shadecloth:		
	Silver, 50% shade, 2/4/8m wide	\$6.50 per m2
Quarantine mesh	2m width, white	\$16.00 per metre
Weedstop™ fabric:		
	Black, woven, UV stabilised, 0.6 x 100m to 385 x 100m	\$88.84 to \$190.00
Geocil™ fabric	Black, non-woven domestic weed control, 1m/2m x 25m/100m	\$25.00 to \$191.66
Wire staples	Galvanised for weed control fabrics, 13cm or 23cm, price per carton of 200	\$31.05/\$39.60
Plastic pins	For weed control fabrics, 170mm, per 100	\$16.50
Microclima	Crop and frost protection, 2m/4m x 50m roll, white	\$117.00/\$234.00
Frostguard	Frost protection fabric, 16gsm/30gsm, 1m/2m x 100m/1000m rolls, white	\$100.00 to \$900.00
Biobird	Bird protection netting, green/black knitted or black extruded, 4m x 100m roll, 20mm or 15mm	\$195.93
Insect Screen	910mm x 30m PVC coated FG or aluminium, grey/black	\$85.83/\$135.76
Agracil Windbreak	- green/black, 0.9m to 3.7m x 50m	\$44.52 to \$220.65
Polyclips	Windbreak and shadecloth fastening, green or black, price per 100/500	\$20.90/\$104.50

Evergreen Horticulture & Hydroponics:

Windbreak:	Width	Price per 50m roll
Woven windbreak green or black	0.915, 1.83, 2.74, 3.8m	\$53.95 to \$214.00
Windbreak Plus (knitted)	Green, 1.0, 1.83m	\$73.60 to \$140.30
Clips for securing woven windbreak	- Bags 100 / Cartons 2000	\$20.00/\$360.00
Clips for securing Windbreak Plus	- Bags 200	\$96.49
Weedmat:		
Black Weedmat	0.915, 1.83 widths x 45m	\$37.35 to \$74.70
Black Weedmat	0.915, 1.83, 3.66 widths x 50m roll	\$53.55 to \$214.20
White Weedmat	1.10m x 100m roll	\$125.00
	1.83 x 50m roll	\$107.10
	3.30m x 100m roll	\$365.00
Weedmat Staples	5" / 9" long x 200	\$23.40/\$35.00
Birdnetting:		
Birdnetting white or black	5m x 100m rolls	\$355.60
	10m x 100m rolls	\$711.20
Birdnetting Clips	Pack 200	\$38.96
Shadecloth:		
Knitted Hortshade	Very light 30% 1.83 and 3.66m	\$208.30 to \$416.55
	Light 50% 1.83 and 3.66m	\$229.25 to \$458.50
	Medium 70% 1.83 and 3.66m	\$292.15 to \$584.25
	Heavy 80% 1.83 and 3.66m	\$340.60 to \$681.15
Woven shadecloth	30% 1.83 and 3.66m	\$154.35 to \$308.70
	50% 1.83 and 3.66m	\$169.80 to \$339.60
	70% 1.83 and 3.66m	\$220.20 to \$440.40
Clips for securing shadecloth	Bags 100 / Carton 2000	\$20.00/\$360.00
Hog rings for securing shade and windbreak – Stanley Bostich applicator		\$168.70

Fruitfed Supplies: (Donaghys Products)

Weedtex	91cm x 50m / 1.83m x 50m	\$53.54/\$107.09
Windbreak plus	1m x 50m / 1.83m x 50m	\$73.57/\$140.30

Newfield Marketing:

Tree Shelters:

Netlon "Smooth Edge" Rolls:				
Size		Price per roll		Price per 5 rolls
0.6/1.2 x 10m		\$46/\$76		\$43.70/\$72.20
0.6/1.2 x 50m		\$190/\$330		\$180.50/\$313.50
KBC (wrap-around):	1 to 49	50 to 99	100 to 99	500 plus
600mm x 100mm	\$2.45	\$2.30	\$2.25	\$2.10
600mm x 100mm 'Maxi'	\$2.95	\$2.80	\$2.70	\$2.55
750mm x 100mm	\$2.85	\$2.70	\$2.55	\$2.40
1200mm x 125mm	\$4.35	\$4.15	\$3.95	\$3.75
Wire Stabilisers			\$0.80 each (1 per shelter)	
Tubex (Tubular):	5 to 55	60 to 115	120 to 475	480 plus
1.2m x 80 to 115mm diameter	\$5.20 ea	\$4.95 ea	\$4.70 ea	\$4.40 ea

2.23 COMPUTERS

2.23.1 Farmers Requirements

Market surveys have revealed the following uses of the on-farm computer.

- Farm financial record-keeping/analysis.
- Farm physical record-keeping/analysis.
- Accounting and payroll.
- Farm decision analysis, e.g. investment analysis, linear programming, etc.
- Breeding records.
- Communication with other computers to gather information; or
- Communication with other computers to execute market transactions, e.g. order machinery parts, sell produce, etc.
- Education and entertainment.

2.23.2 Guides for Purchasing a Farm Computer

Three questions should be answered before making a final decision to purchase a computer. These are:

- What are the current requirements and problems on the property?
- Can these be best fulfilled or overcome using a computer or are there other least cost alternatives available, e.g. secretarial services or mail in services?
- The final question is - the choice of system to be purchased. This final question will be discussed under the following three headings:
 - Software
 - Hardware
 - General Criteria

Farmers are advised to seek advice from qualified persons before incurring any expenditure on farm computers.

Software

- Do the programs meet the requirements of the farm or farmer?
- Are they endorsed by relevant professional and educational institutions/bodies?
- Are the programs technically correct?
- Are the programs easy to use?
- Are the programs flexible and adaptable i.e. if the farmer changes farming type, policy or legislation changes, e.g. tax changes?
- Is there adequate back-up support if problems occur?
- Is the data required to run the programs readily available?

Hardware

- Is there sufficient capacity, in terms of memory and permanent storage, to handle the data to be processed? Has the particular make and model of computer got a good name for reliability?
- In the event of a breakdown how quickly can the machine be repaired, i.e. is there some one local to repair the computer?
- Is replacement equipment provided while yours is being repaired?
- Is the printer's speed and quality suitable for your requirements?

General Criteria

- What is the total price of the complete system installed on the property, in working order?
- What are the repayment terms and conditions of contract?
- What assurances are given regarding delivery, and installation dates, guarantees and maintenance?
- What is the cost of the service contract after the warranty expires?
- Is the dealer likely to stay in business?
- If programs are especially written for you, who owns them? Can copies be sold to third parties?
- Is the firm's hardware and software likely to change? What is the fully maintained life expectancy of their products?

2.23.3 General Guidelines

When purchasing a new computer the minimum specification considering available technology and relative market value should be:-

Computer:

There is a lot of jargon involved in buying a computer, but the crucial issues are the speed that it operates and the amount of memory loaded. A minimum speed of 500Mhz, pentium processor (or equivalent) is becoming the standard computer. At least 32MB RAM (preferably more). At least 7 GB hard disc, CD ROM and a floppy disk drive for backups. With many of the current software packages it is recommended to have a zip disk for backing up purposes. Most computers will also include a modem for accessing the internet. A computer with this sort of capability could be expected to cost within the range of \$1500 to \$2800.

Printer:

The choice of printer will depend on the end use of the computer output. A reliable ink jet printer for general farming use would cost between \$300 and \$1000. For home use it is worth considering a colour printer, choose a printer which has a separate black cartridge for everyday use and a colour cartridge for the childrens' school projects.

Laser printers offer the highest print quality for modest running costs. Typical prices for laser printers are \$750 to \$3500.

Software:

A farmer would normally require the following software:

- Financial recording and budgeting system. Suitable products are available from between \$500 to \$1500.
- Word processing
- Spreadsheet
- Database

Most computer hardware packages will come with Windows 98, 2000 or XP, general word processing, spreadsheet and database software and educational or games software, bundled with it.

2.23.4 Hardware Prices

Global PC Ltd:

Intel System

Intel Celeron processor

Priced from \$1,421.33 To \$1,554.66

Integrated graphics, 20gb -100 hard drive

Gigabyte ATX motherboard, 128mb

Legend Pc133 memory, 15" digital

monitor, 52x CD drive, 56k voice/fax/data modem, 32bit sound (integrated), 120watt speakers, mouse and keyboard.

Software:

Windows XP home edition, fax software if required, Microsoft Internet Explorer & Outlook Express, 602 Office Suite

Package:, word processor, spreadsheet, photo editor.

AMD System

AMD Duron processor

Priced from \$1,510.22 to \$1,643.55

Integrated graphics, 20gb -100 hard drive

Gigabyte / MSI ATX motherboard with ex AGP , 128mb memory, 15" digital monitor,

52x CD Drive, 56k voice/fax/data modem, 32bit sound (integrated), 120watt speakers, mouse and keyboard.

Software:

Windows XP home edition, fax software if required, Microsoft Internet Explorer & Outlook Express, 602 Office Suite package: word processor, spreadsheet, photo editor.

Dell™:

Dimension 8200	Optiplex Plus GX150	Dimension 2100
Priced at \$3,119	Priced at \$2,179)	Priced at \$1,359
Intel Pentium 4 processor 2GHz, Intel 850 chipset, 256KB L2 cache, 384MB RAM, 40GB hard drive, 17" colour monitor, (15.9"v.i.s), Microsoft Windows XP home edition, Microsoft Office XP Small Business (OEM), Norton Anti-Virus 2002 – OEM.	Intel Celeron processor 1GHz, 128KB integrated L2 cache, 128MB shared PC133 SDRAM memory, 10GB ATA hard drive 7200rpm, 3.5" 1.44MB diskette drive, 15" colour monitor (13.8" v.i.s), Microsoft IntelliMouse, Microsoft Windows XP Professional, Microsoft OEM Works Suite 2001.	Intel Celeron processor 1GHz, 20GB hard drive, 128KB L2 cache, 256MB RAM, 15" colour monitor (13.8"v.i.s), Microsoft Windows XP Home Edition, Microsoft OEM Works Suite 2001, Norton Anti-Virus 2002 – OEM.

2.23.5 Software Prices

Landmark:

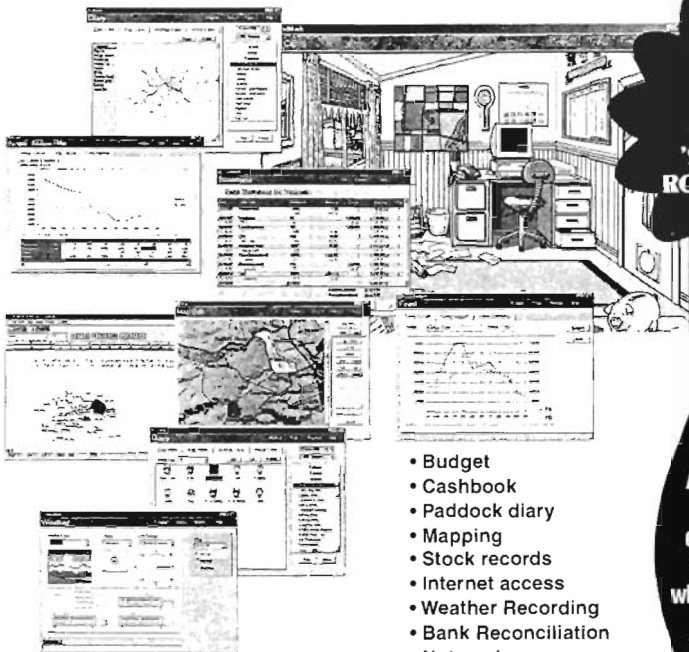
Software for the land - Windows based; farm specific and easy to use.

A comprehensive farm planner and financial package.

\$795

- farm mapping
- feed budgeting
- paddock diary
- stock recording (individual or group basis)
- budget (cash flow or gross margin)
- cashbook - end of year reports, GST
- internet support

A simplified version is available for those who have a 486 computer.



This software allows you to both plan and record your

- Physical production details
- Financial transactions as well as numerous other features, with the minimum amount of hassle.

It is designed for the farmer who regards the farm office as a necessary evil and would rather be out on the farm.

Terms and pictures that farmers are already familiar with are used instead of computer or accounting jargon.



LandMark
Software for the land

version 2 farm software

FOR ALL FARM TYPES • LIVESTOCK • ARABLE • ORCHARDS • DAIRY • VEGETABLE • ETC.

i•Agri Ltd, PO Box 80019, Christchurch
Phone 03-343 6396, Fax 03-343 6397, Email hq@iagri.com Web www.iagri.com

- Budget
- Cashbook
- Paddock diary
- Mapping
- Stock records
- Internet access
- Weather Recording
- Bank Reconciliation
- Notepad
- Fertiliser costing
- Milk calculator
- Irrigation scheduler
- Feed Budget
- Video Tutorials plus much more...

Computer Requirements

IBM compatible
Pentium processor
16Mb RAM memory (minimum)
80Mb hard disc space
Windows '95, '98 or NT
Colour SVGA screen (SVGA, 256 colours rec)

1st

'99 SYDNEY
ROYAL EASTER
SHOW

Agricultural
software
competition
integrated/
whole systems.

**Best of
the show.**

Another product from



i•Agri

AgResearch, Ruakura Research Centre:

Stockpol is a simulation model, designed to evaluate changes in farm policy. With Stockpol, the farmer can experiment with changes to stock classes, stock numbers, buying and selling patterns, lambing and calving dates, target liveweights, shearing, conservation and cropping. By entering the details for the existing and new policies, and using the simulation to predict what will happen. If there is a problem, Stockpol will suggest ways of making the new policy work. An integrated database of prices lets the farmer compare the economics of each policy. Stockpol can also operate as a short-term model for feed-budgeting and monitoring applications.

Stockpol Farmer	\$585
This price does not include software support or training.	

Computer Concepts Ltd.:

Cash Manager 2000	\$1196
Debtors & Cash Manager 5.5	\$1259
Cash Concepts for Windows 5.5 Base Program	\$446
Cash Concepts Base, Budgeting & Debtors Bundle	\$896
Cash Concepts Base & Budgeting Bundle	\$596
Cash Concepts Base & Debtors Bundle	\$696
Debtors	\$299
FarmPac (Cash Manager 2000 and Endeavor 2.2)	\$1996
Endeavour2.2 (Farm mapping and information management software)	\$1196

Flock-Linc:

Annual Flock Fee	\$35.00
Annual New Animal Identified Fee	\$1.15
Enrolment Fee per flock (charged once)	\$100.00
SIL Annual Flock Fee	\$30.00
SIL New Animal Identified Fee	\$0.40
Discounts available:	
\$0.18 per new animal identified if data transferred electronically	
\$0.18 per new animal identified if flock over 300 ewes	

Livestock Improvement Corporation:

Computer Programs – Software Rental Fees

	MINDAlink	DairyWIN	DairyMIN	CowPAD
Annual Program Fee	Free	\$250	\$100	\$100
Herd Fee (per herd)	Free	\$200	\$200	

The Annual Fee and Herd Fee includes:

- the latest version of the program
- any program updates released during the season
- user support
- free downloads
- documentation

MINDA Downloads are available via the Internet or on a 3.5" floppy disk. Internet downloads are free and on disk cost \$10/download.

Ken Moore Computing Ltd:

New Zealand Performance Recording Services Limited (NZPRS)

NZPRS caters for all livestock types, providing full recording bureau services to breeders who do not currently have the on-farm facilities for doing so themselves. NZPRS uses the Studfax for Windows program, and breeders can transfer data from the bureau to Studfax on their own computers at any time. NZPRS also provides Studfax for Windows sale and support services.

NZPRS is a registered Service Provider with Sheep Improvement Limited (SIL) offering a full or partial bureau services for sheep breeders (all breeds). NZPRS will enter back data and assist breeders with the transition from a manual to a computer recording system, and provide support for breeders interfacing directly from Studfax to SIL.

Fees (basic)

Annual flock/herd registration	\$35
Annual bureau charge/female breeding animal	\$1.00
SIL charge for each new ID	\$0.40
SIL flock registration (annual fee)	\$30
Bureau fee discounts, and charges for additional or other EBV services negotiable on an individual basis.	

Compubreed Systems:

Studfax for Windows fully featured performance recording program for all types of livestock with one animal database (eg Sheep, Deer, Cattle, Goats, Horses) - \$1,400.

Additional animal database (eg Red Deer if a breeder already has Sheep) - \$200.

Studfax for Windows to Sheep Improvement Limited interface - \$80.

There is no limit to the number of different flocks/herds that can be recorded within an animal type. Studfax for Windows allows users to interface directly with SIL and Breedplan via the Internet.

Payroll

Ace Payroll Plus (incorporates current taxation schedules)	
Windows version	\$250 base rate

Other Farm Software

Cash Manager 2000	\$1,196
Endeavour 2	\$1,196

Farm Works: (Feilding)

FarmTracker Software Version 6.1 released September 2001	
Paddock - Records fertiliser, chemical and cropping details	\$250
Map - Draw farm maps, fencelines, water, irrigation, contours, calculate areas	\$350
Stock - Combines livestock production, health, reproduction and management information.	\$250
Planner - Plans paddock activities, crop production and stock feeding (supersedes 5.5 feed budget module)	\$450

Individual Animal – Records individual animals, suitable for commercial use in conjunction with electronic scales	\$295
Gross Margins – Calculates animal and crop gross margins	\$105
Farm Records - Enterprise information recording including crop storage, sales, wool production, employees, machinery - Free if all modules purchased.	
GROW - Grass growth predictor. Incorporated into Planner above.	
CoverWalks (Sub-module) – Records and reports pasture covers by paddock, or management blocks, etc.	\$70
HortTracker – Vegetable, orchard, arable mapping, planning, recording and monitoring including spray diary, and inventory control	\$150
Phoenix - Full accrual accounting system with livestock reconciliation and extensive budgeting options.	0
Upgrade prices for existing users available on request	\$875
<i>Cluster Combinations</i>	
Map and Paddock	\$600
Map and Planner	\$700
Paddock and Planner	\$600
GPS Farm Mapping:	
Base Fee (Regional differences)	\$300/\$400
Minimum charge (for properties up to 60 hectares)	\$600
Additional charge per hectare 61 to 100 ha	\$5 per hectare
101 to 200 ha	\$4 per hectare
over 200 ha	\$3.50 per hectare
Large properties by negotiation	
Photo scanning and map drawing:	
	A4 A3 A1
Scanning black and white	\$28.55 \$49.28 \$74.28
colour	\$47.40 \$68.03 \$93.03
(larger than A1 negotiable)	
Electronic rising plate meter:	
Full plate meter with counter and carry bag	\$600
Electronic plate counter	\$350
Carry bag only	\$45
Manual plate meter conversion kit	\$25
Round plate with outer black shaft	\$45
Counter repairs outside warranty including freight	\$60

Vaughan Jones:

38 VJ spreadsheet templates help with most farm operations including feed budgeting, EFS, pasture analysis, number of cows to milk, cow earnings, farm statistics, etc. Each operates on a spreadsheet on any computer, can be altered to suit an individual farm and can be graphed. Upgrades are free for one year, then half price thereafter.

Note: This price is for all 38 spreadsheets. (\$7.89 each)

2.24 APPENDIX: RATE of INFLATION in NEW ZEALAND 1891 to 2001

The Consumer Price Index (C.P.I.) measures the rate of inflation for each year, for example, 0.5% in 1892 (see second column) and 1.8 % in 2001.

To calculate the fall in the value of the dollar from any of the base years (where value shown is 1.0000) simply divide 1.0 by the value of the dollar in the year of interest.

For example:

- (i) 1891 (below) compared with 2001
 $= 1.0 \text{ divided by } 0.0082 = 121.95$

This means a dollar (ten shillings) in 1891 would buy 121.95 times as much as a dollar in 2001.

- (ii) 1950 compared with 1984
 $= 1.0 \text{ divided by } 0.0681 = 14.68 \text{ times more purchasing power.}$

Base Year:

Year	C.P.I. %	1891	1920	1930	1940	1950	1960	1970	1980	1990	2000
1891	-	1.0000									
1892	0.5	0.9947									
1893	2.7	0.9682									
1894	0.5	0.9632									
1895	-0.5	0.9681									
1896	0.5	0.9631									
1897	1.0	0.9532									
1898	4.1	0.9143									
1899	-3.4	0.9457									
1900	2.0	0.9265									
1901	3.0	0.8988									
1902	2.4	0.8771									
1903	-0.5	0.8812									
1903	0.0	0.8812									
1905	0.0	0.8812									
1906	6.6	0.8228									
1907	-0.9	0.8301									
1908	0.0	0.8301									
1909	-1.3	0.8412									
1910	1.4	0.8298									
1911	-0.9	0.8372									
1912	3.2	0.8107									
1913	2.2	0.7929									
1914	4.3	0.7589									
1915	7.8	0.6996									
1916	8.0	0.6435									
1917	9.9	0.5798									
1918	12.2	0.5090									
1919	7.7	0.4696									

Year	C.P.I %	1891	1920	1930	1940	1950	1960	1970	1980	1990	2000
1920	13.6	0.4059	1.0000								
1921	3.3	0.3926	0.9672								
1922	-10.9	0.4353	1.0725								
1923	-2.5	0.4464	1.0998								
1924	2.1	0.4371	1.0768								
1925	0.5	0.4348	1.0713								
1926	0.5	0.4326	1.0658								
1927	-0.8	0.4359	1.0739								
1928	0.0	0.4359	1.0739								
1929	-0.3	0.4370	1.0739								
1930	2.01	0.4460	1.0987	1.0000							
1931	7.6	0.4797	1.1819	1.0757							
1932	7.9	0.5177	1.2754	1.1608							
1933	4.6	0.5415	1.3341	1.2142							
1934	1.3	0.5345	1.3169	1.1986							
1935	3.8	0.5142	1.2667	1.1529							
1936	2.8	0.5000	1.2319	1.1212							
1937	7.1	0.4643	1.1439	1.0411							
1938	3.1	0.4501	1.1089	1.0093							
1939	4.6	0.4295	1.0581	0.9631							
1940	4.1	0.4118	1.0145	0.9233	1.0000						
1941	3.7	0.3965	0.9768	0.8891	0.9629						
1942	3.1	0.3842	0.9465	0.8615	0.9330						
1943	2.5	0.3744	0.9224	0.8395	0.9092						
1944	1.8	0.3676	0.9058	0.8244	0.8928						
1945	1.3	0.3628	0.8937	0.8314	0.8809						
1946	0.7	0.3604	0.8878	0.8081	0.8752						
1947	3.3	0.3486	0.8589	0.7817	0.8466						
1948	8.0	0.3207	0.7902	0.7192	0.7789						
1949	1.6	0.3157	0.7779	0.7080	0.7667						
1950	5.8	0.2976	0.7331	0.6672	0.7226	1.0000					
1951	10.9	0.2651	0.6532	0.5946	0.6439	0.8911					
1952	7.9	0.2443	0.6019	0.5478	0.5933	0.8211					
1953	4.6	0.2332	0.5745	0.5229	0.5663	0.7837					
1954	4.5	0.2227	0.5487	0.4994	0.5408	0.7485					
1955	2.6	0.2168	0.5342	0.4862	0.5266	0.7287					
1956	3.4	0.2095	0.5161	0.4698	0.5087	0.7041					
1957	2.2	0.2048	0.5046	0.4593	0.4974	0.6884					
1958	4.5	0.1957	0.4820	0.4387	0.4751	0.6575					
1959	7.5	0.1810	0.4460	0.4095	0.4396	0.6084					
1960	-2.7	0.1860	0.4582	0.4170	0.4516	0.6250	1.0000				
1961	1.8	0.1827	0.4501	0.4097	0.4437	0.6140	0.9824				
1962	2.6	0.1779	0.4382	0.3988	0.4319	0.5978	0.9564				
1963	2.0	0.1743	0.4294	0.3908	0.4232	0.5857	0.9371				
1964	3.4	0.1683	0.4147	0.3775	0.4088	0.5657	0.9051				

Year	C.P.I %	1891	1920	1930	1940	1950	1960	1970	1980	1990	2000
1965	3.4	0.1626	0.4006	0.3646	0.3949	0.5465	0.8743				
1966	2.8	0.1581	0.3895	0.3545	0.3839	0.5313	0.8500				
1967	6.1	0.1484	0.3657	0.3328	0.3605	0.4988	0.7981				
1968	4.2	0.1421	0.3502	0.3187	0.3452	0.4777	0.7642				
1969	5.0	0.1351	0.3327	0.3028	0.3280	0.4539	0.7262				
1970	6.5	0.1263	0.3112	0.2833	0.3068	0.4245	0.6792	1.0000			
1971	10.4	0.1131	0.2787	0.2537	0.2747	0.3802	0.6083	0.8955			
1972	6.9	0.1053	0.2595	0.2363	0.2558	0.3540	0.5664	0.8338			
1973	8.2	0.0967	0.2383	0.2168	0.2349	0.3251	0.5201	0.7658			
1974	11.2	0.0859	0.2117	0.1927	0.2087	0.2888	0.4621	0.6803			
1975	14.7	0.7333	0.1807	0.1645	0.1781	0.2465	0.3943	0.5806			
1976	16.9	0.0609	0.1501	0.1366	0.1480	0.2048	0.3276	0.4824			
1977	14.4	0.0522	0.1285	0.1170	0.1267	0.1753	0.2805	0.4130			
1978	11.9	0.0459	0.1132	0.1030	0.1116	0.1544	0.2470	0.3637			
1979	13.7	0.0396	0.0976	0.0889	0.0963	0.1332	0.2131	0.3138			
1980	17.1	0.0328	0.0809	0.0737	0.0798	0.1104	0.1766	0.2600	1.0000		
1981	15.5	0.0278	0.0684	0.0623	0.0674	0.0933	0.1493	0.2198	0.8453		
1982	16.1	0.0233	0.0574	0.0523	0.0566	0.0798	0.1253	0.1845	0.7094		
1983	7.4	0.0216	0.0532	0.0484	0.0524	0.0725	0.1160	0.1708	0.6570		
1984	6.1	0.0203	0.0499	0.0455	0.0492	0.0681	0.1090	0.1605	0.6171		
1985	15.5	0.0171	0.0422	0.0384	0.0416	0.0576	0.0921	0.1356	0.5216		
1986	13.2	0.0149	0.0366	0.0333	0.0361	0.0500	0.0799	0.1177	0.4526		
1987	15.7	0.0125	0.0309	0.0281	0.0304	0.0421	0.0674	0.0992	0.3815		
1988	6.4	0.0117	0.0289	0.0263	0.0285	0.0394	0.0631	0.0929	0.3572		
1989	5.7	0.0111	0.0273	0.0248	0.0269	0.0372	0.0595	0.0876	0.3368		
1990	6.1	0.0104	0.0256	0.0233	0.0253	0.0349	0.0559	0.0823	0.3163	1.0000	
1991	4.5	0.0099	0.0244	0.0223	0.0242	0.0333	0.0534	0.0786	0.3021	0.9550	
1992	0.8	0.0098	0.0242	0.0221	0.0240	0.0330	0.0530	0.0778	0.2997	0.9474	
1993	1.4	0.0097	0.0239	0.0218	0.0237	0.0325	0.0523	0.0767	0.2955	0.9341	
1994	2.8	0.0094	0.0232	0.0211	0.0230	0.0316	0.0508	0.0745	0.2872	0.9079	
1995	2.9	0.0091	0.0225	0.0205	0.0223	0.0307	0.0493	0.0723	0.2788	0.8816	
1996	2.6	0.0089	0.0219	0.0200	0.0217	0.0299	0.0480	0.0704	0.2716	0.8587	
1997	0.8	0.0088	0.0217	0.0198	0.0215	0.0297	0.0476	0.0699	0.2694	0.8518	
1998	0.4	0.0088	0.0217	0.0197	0.0215	0.0295	0.0474	0.0696	0.2683	0.8484	
1999	0.5	0.0087	0.0215	0.0196	0.0214	0.0294	0.0472	0.0692	0.2670	0.8442	
2000	4	0.0084	0.0207	0.0188	0.0205	0.0282	0.0453	0.0665	0.2563	0.8104	1.0000
2001	1.8	0.0082	0.0203	0.0185	0.0201	0.0277	0.0445	0.0653	0.2517	0.7958	0.9820

Source: Lincoln University.

SECTION 3

LIVESTOCK, CROPPING and HORTICULTURAL GROSS MARGINS

ENTERPRISE ANALYSIS

3. LIVESTOCK, CROPPING and HORTICULTURAL GROSS MARGINS (ENTERPRISE ANALYSIS)

3.1 INTRODUCTION

General:

The gross margins included in this manual relate, where possible, to the "real farm" (or orchard) situation. Cost, price and yield estimates for the stock and crop enterprises are based largely on Canterbury figures as at February 2002. The horticultural gross margins have been derived from a variety of information sources.

Use of Gross Margins:

Gross Margins can be used as the first step in comparing the profitability of different enterprises. The mathematics involved is simple - the direct or variable costs associated with a particular enterprise are subtracted from the total income from that enterprise. The gross margin result is then normally expressed in terms of dollars per stock unit or per hectare.

Direct or variable costs include items such as animal health costs, and harvesting costs. They do not include costs common to all enterprises, such as rates and interest payments (fixed costs).

Warning:

Gross margins are a simple means of comparing enterprises, but care must be taken when interpreting the results. It is important to note that gross margins make the assumption that each enterprise is independent of all other farm or orchard activities, both technically and financially. They also assume that each additional unit of production is worth as much as, and costs as much as, each preceding unit. Note also that different properties are likely to show differing gross margin returns for identical enterprises, because yields and costs will differ according to each individual property.

A critical evaluation of the gross margin technique will reveal further limitations with this form of analysis. In many instances, the farmer or grower will find it necessary to go the next step, and that is to prepare partial budgets or full budgets in order to further compare alternative enterprises.

Explanation of Tables:

Some Gross Margins are accompanied by a 'sensitivity' table, which shows how the profitability of the enterprise will differ if different yields, prices etc. are used in the analysis. The central, boxed, figure in the table is the gross margin result from the example used.

Interest and Supplementary Feed Costs:

Interest and supplementary feed costs are normally excluded from gross margins when comparing enterprises (in particular livestock enterprises) for the same property.

However a partial budgeting approach may be adopted with livestock enterprises, including estimates of interest and feed costs in order to provide a more accurate indication of actual returns. The interest cost takes account of the high capital requirements of some enterprises, and the fact that in many instances borrowed capital is involved. The interest used here is that of a typical stock and station agent livestock loan as at February 2002. Feed costs can be ignored where there is no change in the supplementary feed required to change from one stock enterprise to another. Where there is a change however, all additional supplementary feed costs, should be included.

NOTE: ALL FIGURES USED IN THE CALCULATIONS ARE GST EXCLUSIVE.

3.2 LIVESTOCK GROSS MARGINS

Prices and costs used are those ruling in early 2002.

The gross margins should therefore be adjusted as costs, prices, policies and production parameters change.

The assumption is made that the farm has suitable layout, buildings, equipment and sufficient labour to carry out the routine work associated with each enterprise. Shearing and dipping are done by contract.

Assistance in the preparation of these gross margins was given by staff of the Lincoln University Farm Advisory Service and Applied Management and Computing Division and also by Alastair Nicol from the Animal and Food Sciences Division.

3.2.1 Sheep - Breeding ewe flock

SHEEP GROSS MARGIN

Crossbred Ewe Flock, Breeding Own Replacements.
(Hill country)

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Ewes	735 @	\$65	\$47,775	1	735
2 th Ewes	265 @	\$100	\$26,500	1	265
Ewe Hoggets	390 @	\$60	\$23,400	0.7	273
Rams	20 @	\$100	\$2,000	0.8	16
	1,410		\$99,675		1,289

Dollar Investment in sheep per stock unit \$ 77.33

Production Parameters:

Lambing - survival to sale.	110%
Death rate.	5%
Cull hoggets sold as hoggets/2ths	
Wether lambs sold prime	60%
Sell genuine 5 year old ewes.	
Ewes wool clip (kg)	4.5
Hogget wool clip (kg)	3.0
Ewe lamb wool clip (kg)	1.5

Income:

Prime wether lambs	330 @	\$65.00	\$21,450	
Store m.s. lambs	361 @	\$45.00	\$16,245	
Cull hogget/2ths	86 @	\$75.00	\$6,450	
5 year old ewes	140 @	\$45.00	\$6,300	
Cull ewes to works	44 @	\$40.00	\$1,760	
Wool (kg)	5960 @	\$4.00 (net)	\$23,840	
TOTAL INCOME				\$76,045

Expenditure:

Shearing -				
Sheep	990 @	\$240 per 100	\$2,376.00	
Hoggets	370 @	\$240 per 100	\$888.00	
Lambs	408 @	\$225 per 100	\$918.00	
Tup crutch - ewes	1010 @	\$80 per 100	\$808.00	
Main crutch - ewes	990 @	\$95 per 100	\$940.50	
Crutch - hoggets	370 @	\$80 per 100	\$296.00	\$6,226.50
Woolshed expenses - plant, packs etc.				\$350.00
Animal Health -				
Drench ewes pre-lamb	990 @	\$0.07	\$69.30	
Drench lambs (doses)	3177 @	\$0.05	\$158.85	
(replacements drenched 5 times, stores 3 times)				
Vaccinate ewes	990 @	\$0.48	\$475.20	
Vaccinate hoggets	370 @	\$0.40	\$148.00	
Eartags, footrot and docking etc			\$550.00	
Dipping - sheep	1000 @	\$1.00	\$1,000.00	
- lambs	722 @	\$0.85	\$613.70	\$3,015.05
Cartage - (based on 100km travel)				
Prime lambs	330 @	\$1.70	\$561.00	
Store lambs	361 @	\$0.95	\$342.95	
Cull hgtg/2th/5yr ewes	226 @	\$1.75	\$395.50	
Works ewes	44 @	\$1.60	\$70.40	
Wool - bales	33 @	\$10.00	\$330.00	\$1,699.85
Selling Charges -				
Yard fees - sheep	587 @	\$0.55	\$322.85	
Commission -				
- saleyards	\$28,995 @	5.5%	\$1,594.73	
- other stock	\$23,210 @	5.5%	\$1,276.55	\$3,194.13
Ram Purchase	5 @	\$450		\$2,250.00

TOTAL DIRECT COSTS **\$16,735.53**

TOTAL GROSS MARGIN (before interest)	\$59,309.48
GROSS MARGIN per dollar invested in sheep	\$ 0.60
<u>GROSS MARGIN per Stock Unit</u>	<u>\$ 46.01</u>

**Gross Margin per Stock Unit at Various
Stock Sale and Wool Prices.**

		Wool Price \$/kg (net)		
		\$3.20	\$4.00	\$4.80
AVERAGE PRIME	\$52.00	\$39.17	\$42.87	\$46.57
LAMB PRICE	\$65.00	\$42.31	\$46.01	\$49.71
\$/HEAD	\$78.00	\$45.46	\$49.16	\$52.86

Interest Costs:

Interest on Capital Stock Value:			
\$99,675	@	5.5%	\$ 5,482
RETURN per Stock Unit (after interest)			\$ 41.76

3.2.2 Sheep - '2 year' Flock

SHEEP GROSS MARGIN

Crossbred '2 year' Flock, replacements
by purchase of 5 year old ewes annually.
(Easy country)

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Ewes	1000 @	\$60.00	\$60,000	1	1000
Rams	16 @	\$100	\$1,600	0.8	13
	1,016		\$61,600		1,013
Dollar Investment in sheep per stock unit			\$60.82		

Production Parameters:

Lambing - survival to sale.	130%
Death rate.	6%
First year ewes culled	25%
Export lamb sire; all lambs sold prime	
Ewes wool clip (kg)	4.5
Lambs not shorn	

Income:

Prime m.s. lambs	1300 @	\$65.00	\$84,500
Cull ewes to works	527 @	\$40.00	\$21,080
Wool (kg)	3840 @	\$4.00 (net)	\$15,360

TOTAL INCOME \$120,940.00

Expenditure:

Replacement ewes	595 @	\$60.00		\$35,700
Shearing -				
Sheep	960 @	\$240 per 100	\$2,304.00	
Tup crutch - ewes	418 @	\$80 per 100	\$334.40	
Main crutch - ewes	965 @	\$95 per 100	\$916.75	\$3,555.15
Woolshed expenses - plant, packs etc.				\$250.00
Animal Health -				
Drench ewes pre-lamb	990 @	\$0.07	\$69.30	
Drench lambs (3x)	3900 @	\$0.05	\$195.00	
Vaccinate ewes	990 @	\$0.48	\$475.20	

Eartags, footrot and docking etc			\$300.00	
Dipping - purchased ewes already dipped				
ewes	418 @	\$1.00	\$418.00	
lambs	850 @	\$0.85	\$722.50	\$2,180.00
Cartage - (based on 50km travel except for replacement ewes, at 70km)				
Prime lambs	1300 @	\$1.14	\$1,482.00	
Works ewes	527 @	\$0.86	\$453.22	
Replacement ewes	595 @	\$1.90	\$1,130.50	
Wool - bales	21 @	\$8.00	\$168.00	\$3,233.72
Ram Purchase	4 @	\$450		\$1,800.00

TOTAL DIRECT COSTS \$46,718.87

TOTAL GROSS MARGIN (before interest) \$74,221.13

GROSS MARGIN per dollar invested in sheep \$1.20

GROSS MARGIN per Stock Unit \$73.28

Gross Margin per Stock Unit at Various Lamb and Wool Prices.

		Wool Price \$/kg (net)		
		\$3.20	\$4.00	\$4.80
LAMB	\$52.00	\$53.56	\$56.60	\$59.63
PRICE	\$65.00	\$70.25	\$73.28	\$76.32
\$/HEAD	\$78.00	\$86.94	\$89.97	\$93.00

Interest Costs:

Interest on Capital Stock Value:

\$61,600 @ 5.5% \$3,388.00

RETURN per Stock Unit (after interest) \$69.94

3.2.3 Sheep - Merino Ewe

SHEEP GROSS MARGIN

Merino Ewe Flock, Breeding Own Replacements
(Low country)

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Ewes	850 @	\$50	\$42,500	0.85	722.5
2 th Ewes	150 @	\$70	\$10,500	0.8	120
Hoggets (m.s.)	850 @	\$45	\$38,250	0.6	510
Rams	13 @	\$150	\$1,950	0.7	9
	1,863		\$93,200		1,362

Dollar Investment in sheep per stock unit \$68.45

Production Parameters:

Lambing - survival to winter 85%
Death rate (ewes) 5%
All lambs/hoggets wintered, surplus sold after shearing.
Percentage of 2th entering the flock 15%
Ewes wool clip (kg) 4
Hogget wool clip (kg) 3.1
(average 21 and 19 micron diameter, respectively).

Income:

Hoggets (m.s.)	680 @	\$50.00 (net)	\$34,000
Works ewes	100 @	\$35.00	\$3,500
Wool (kg)	4000 @	\$8.50 (net)	
Wool (kg)	2635 @	\$12.00 (net)	
Average wool price	6635 kg	\$9.89 (net)	\$65,620

TOTAL INCOME \$103,120.00

Expenditure:

Shearing -				
Sheep	1000 @	\$375 per 100	\$3,750.00	
Hoggets	845 @	\$375 per 100	\$3,168.75	
Crutch ewes	1015 @	\$95 per 100	\$964.25	
Crutch hoggets	850 @	\$80 per 100	\$680.00	
Crutch lambs	900 @	\$50 per 100	\$450.00	\$9,013.00

Woolshed expenses - plant, packs etc.

Plant, packs etc				\$400.00	
Classing etc. approx.	@	\$0.45	per head	\$500.00	\$900.00
Animal Health -					
Drench ewes (2x)	2000 @	\$0.14		\$280.00	
Drench lambs/hoggets	4850 @	\$0.09		\$436.50	
Vaccinate ewes	990 @	\$0.48		\$475.20	
Vaccinate hoggets	160 @	\$0.45		\$72.00	
Footvax	2000 @	\$0.80		\$1,600.00	
Fly spray, zinc sulphate, tags etc				\$800.00	
Dipping - all sheep	1900 @	\$1.25		\$2,375.00	\$6,038.70
Cartage - (based on 70km travel)					
Hoggets	736 @	\$1.47		\$1,081.92	
Works ewes	100 @	\$1.14		\$114.00	
Wool - bales	40 @	\$9.26		\$370.40	\$1,566.32
Ram Purchase	3 @	\$500			\$1,500.00

TOTAL DIRECT COSTS \$19,018.02

TOTAL GROSS MARGIN (before interest) \$84,101.98

GROSS MARGIN per dollar invested in sheep \$0.90

GROSS MARGIN per Stock Unit \$61.77

Gross Margin per Stock Unit at Various hogget and wool prices

		Average Wool Price \$/kg (net)		
		\$7.91	\$9.89	\$11.87
AVE HOGGET	\$40.00	\$47.13	\$56.77	\$66.41
PRICE	\$50.00	\$52.13	\$61.77	\$71.41
\$/HEAD (net)	\$60.00	\$57.12	\$66.76	\$76.40

Interest on Capital Stock Value:

\$93,200 @ 5.5% \$5,126.00

RETURN per Stock Unit (after interest) \$58.00

3.2.4 Beef - Breeding Cow

BEEF GROSS MARGIN

Breeding Cow Herd, Selling Steers
and Surplus Heifers at approximately 18 months

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Cows	82 @	\$700	\$57,400	5.5	451
I.C. R2yr heifers	18 @	\$750	\$13,500	5.5	99
R1yr Heifers	43 @	\$500	\$21,500	3.5	151
R1yr Steers	43 @	\$600	\$25,800	4	172
Breeding Bulls	3 @	\$1,400	\$4,200	5.5	17
	189		\$122,400		889
Dollar Investment in cattle per stock unit			\$137.68		

Production Parameters:

Calves weaned 86%
Death rate 3%
Heifers entered in herd each year 18%
Angus/Hereford cows mated to Angus or Hereford bulls.
Steers and surplus heifers sold as forward store, on farm.

Income:

18 month steers	42	\$950.00 (net)	
18 month heifers	24	\$700.00 (net)	
18 month cattle sales	66 @	\$859.09 (net)	\$56,700
Cull Cows	15 @	\$625.00 (net)	\$9,375
Bull	1 @	\$1,000.00 (net)	\$1,000
TOTAL INCOME			\$67,075

Expenditure:

Animal Health -			
Drench calves (3x)	258 @	\$1.00	\$258.00
Pregnancy test cows	100 @	\$2.50	\$250.00
Bull purchase - landed			\$2,250
Freight and commission (stock net on farm)			\$0.00
TOTAL DIRECT COSTS			\$2,758.00

TOTAL GROSS MARGIN (before interest)	\$64,317.00
GROSS MARGIN per dollar invested in cattle	\$0.53
<u>GROSS MARGIN per Stock Unit</u>	<u>\$72.35</u>

Gross Margin per Stock Unit at various weaning percentages and selling prices (18 month cattle):

		AVERAGE SALE PRICE \$/HEAD of 18 month cattle		
		\$730.23	\$859.09	\$987.95
% WEANED	77%	\$56.21	\$64.62	\$73.02
	86%	\$62.78	\$72.35	\$81.91
	95%	\$69.35	\$80.08	\$90.80

Interest and Feed Costs:

Interest on Capital Stock Value:		
\$122,400 @ 5.5%		\$6,732.00
Feed - Buy in additional hay (bales)		
700 @ \$ 3.50	\$2,450.00	\$9,182.00
RETURN per stock unit (after interest and feed)		\$62.02

TOTAL GROSS MARGIN (before interest)	\$41,785.80
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GROSS MARGIN per dollar invested in cattle \$0.79

<u>GROSS MARGIN per Stock Unit</u>	<u>\$114.48</u>
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Gross Margin per Stock Unit at Various weaner and bull prices

		BULL SCHEDULE \$/kg		
		\$2.89	\$3.70	\$4.51
WEANER	\$2.75	\$82.37	\$123.32	\$164.26
PRICE	\$3.20	\$73.54	\$114.48	\$155.43
\$/kg	\$3.65	\$64.70	\$105.64	\$146.59

Interest and Feed Costs:

Interest on Capital Stock Value:

\$52,800 @ 5.5%

\$2,904.00

RETURN per stock unit (after interest)	\$106.53
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3.2.6 Dairy

DAIRY GROSS MARGIN

Factory Supply herd - cow grazed off-farm for 10 weeks in winter

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Milking Cows	320 @	\$1,400	\$448,000	8	2560
In Calf Milking Heifers	90 @	\$1,250	\$112,500	6.5	585
R 1 Yr Heifers	95 @	\$700	\$66,500	3.5	332.5
	505		\$627,000		3,478

Dollar Investment in cattle per stock unit	\$180.30
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Production Parameters:

Milk solids production per cow	330 kg
Calving - live calves	90% Surplus sold within two weeks
Death Rate	5%
Culling Rate	17%

Income:

Milk Solids (kg)	135300 @	\$5.20 per kg	\$703,560
Cull cows	34 @	\$500.00 (net)	\$17,000
M.S. calves	132 @	\$90.00 (net)	\$11,880

TOTAL INCOME	\$732,440
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Expenditure:

Animal Health (i.e. bloat, magnesium, mastitis, vet etc)	410 @	\$57.00 per cow	\$23,370
Artificial Breeding Cows	410 @	\$12.00 per cow	\$4,920
Herd Testing and Recording (4 visits year)			\$540
Per cow fee	410 @	\$1.30	\$2,132
Minda \$156 plus	410 @	\$0.15	\$62
	95 @	\$0.07	\$7
Electricity - shed	410 @	\$47.00 per cow	\$19,270
Shed expenses (i.e.detergent, rubberware, filters etc)	410 @	\$23.00 per cow	\$9,430
(i.e.detergent, rubberware, filters etc)			

TOTAL DIRECT COSTS	\$59,730
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TOTAL GROSS MARGIN (before feed costs and interest)	\$672,710
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GROSS MARGIN per dollar invested in cattle \$1.07

GROSS MARGIN per Stock Unit \$193.45

**Gross Margin per Stock Unit at various
milksolids production levels and milksolids prices:**

		MILKSOLIDS PRICE \$/kg		
		\$4.68	\$5.20	\$5.72
kg	297	\$155.01	\$173.21	\$191.42
Milksolids	330	\$173.21	\$193.45	\$213.68
per cow	363	\$191.42	\$213.68	\$235.93

Interest on Capital Stock Value:
\$627,000 @ 5.5% \$34,485

Feed - Buy in 20% of total requirement per cow (over whole herd)
(i.e. grazing off, hay etc)
@ \$ 140.00 \$57,400 \$91,885

RETURN per stock unit (after interest and feed) \$167.02

3.2.7 Deer - Finishing

RED DEER GROSS MARGIN

All Stag Policy - Buy in
weaners and kill at 14 months

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Weaner Stags (50kg lwt)	100 @	\$275	\$27,500	1.4	140
Dollar Investment in deer per stock unit			\$ 196.43		

Production Parameters:

Death rate. 3%
 Carcase weight at Slaughter (14 months) 55 kg
 Spiker velvet harvested; proceeds pay for cost of harvesting velvet from all stock

Income:

Stags, 55 kg carcass weight	97 @	\$6.80 /kg	\$36,278.00
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Expenditure:

Weaner stags (50 kg lwt)	100 @	\$5.50 /kg	\$27,500
Animal Health (per head)	100 @	\$5.50	\$550.00
Freight (based on 100 km)	100 @	\$8.55	\$855.00
	97 @	\$10.50	\$1,018.50
Levies -			\$1,873.50
GIB & AHB venison levy	5335 @	\$0.16 /kg	\$853.60
Meat inspection fee	97 @	\$8.00 /hd	\$776.00
			\$1,629.60

TOTAL DIRECT COSTS	\$31,553.10
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TOTAL GROSS MARGIN (before feed costs and interest)	\$4,724.90
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GROSS MARGIN per dollar invested in deer	\$0.17
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<u>GROSS MARGIN per Stock Unit</u>	<u>\$33.75</u>
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**Gross Margin per Stock Unit at Various
weaner purchase prices and venison schedule prices.**

		VENISON SCHEDULE \$/KG		
		\$5.58	\$6.80	\$8.02
WEANER	\$6.33	(\$42.36)	\$4.29	\$50.93
PURCHASE PRICE	\$5.50	(\$12.89)	\$33.75	\$80.39
\$/kg Lwt	\$4.68	\$16.57	\$63.21	\$109.86

Interest and Feed Costs:

Interest on Capital Stock Value:

\$27,500 @ 5.5% \$1,512.50

Winter Feed - Buy in additional hay and concentrates

@ \$13 per head \$1,300.00 \$2,812.50

RETURN per Stock Unit (after interest and feed)

\$13.66

3.2.8 Deer - Breeding Herd

DEER GROSS MARGIN

Red Deer Herd, Selling 12 Month Stags
and Surplus Weaner Hinds.

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
M.A. Hinds	130 @	\$475	\$61,750	2	260
18 Month Hinds	20 @	\$375	\$7,500	2	40
6 Month Hinds	21 @	\$250	\$5,250	1.2	25
6 Month Stags	64 @	\$275	\$17,600	1.6	102
Breeding Stags	5 @	\$2,000	\$10,000	2.8	14
	240		\$102,100		442

Dollar Investment in deer per stock unit \$ 231.20

Production Parameters:

Calving - survival to sale 85%
 Death rate. 3%
 Rising 2 year hinds entering herd each year 15%
 12 month stags slaughtered at 55 kg C.W.
 (Spiker velvet harvested; proceeds pay for cost of harvesting velvet from all young stags.)
 Surplus weaner hinds sold net on farm.
 All breeding stock over 3 months T.B. tested every year (herd previously accredited).

Income:

Stags (55 kg C.W.)	61 @	\$6.80 per kg	\$22,814	
Weaner hinds @ 50 kg Lwt	43 @	\$4.60 per kg	\$9,890	
C.f.a. hinds	14 @	\$300	\$4,200	
C.f.a. stag	1 @	\$450	\$450	\$37,354
Velvet (5 breeding stags)	15 @	\$100		\$1,500
TOTAL INCOME				\$38,854.00

Expenditure:

Sire stag	1 @	\$3,500		\$3,500
Animal Health	240 @	\$7.20		\$1,728
Velvet removal	5 @	\$25.00		\$125
Freight (based on 100 km)	61 @	\$8.55	\$521.55	
	15 @	\$10.50	\$157.50	\$679.05

Levies -

GIB & AHB Venison levy	3455 @	\$0.16 /kg	\$552.80	
Meat inspection fee	62 @	\$8.00 /kg	\$496.00	
GIB & AHB Velvet levy	15 @	\$2.99	\$44.85	\$1,093.65

TOTAL DIRECT COSTS \$7,125.70

TOTAL GROSS MARGIN (before interest) \$31,728.30

GROSS MARGIN per dollar invested in deer \$0.31

GROSS MARGIN per Stock Unit \$71.85

**Gross Margin per Stock Unit at Various
weaner hind prices and venison schedule prices.**

		VENISON SCHEDULE \$/kg		
		\$5.68	\$6.80	\$7.92
WEANER	\$3.68	\$58.90	\$67.37	\$75.84
HIND PRICE	\$4.60	\$63.38	\$71.85	\$80.32
\$/kgLwt	\$5.52	\$67.86	\$76.33	\$84.80

Interest and Feed Costs:

Interest on Capital Stock Value:

\$102,100 @ 5.5% \$5,615.50

Winter Feed - Buy in additional hay and concentrates

@ \$12 per head \$2,880.00 \$8,495.50

RETURN per Stock Unit (after interest and feed) \$52.61

3.2.9 Deer - Velvet

DEER GROSS MARGIN

Velvet Production - Red deer

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Spikers	30 @	\$275	\$8,250	1.8	54
Rsg 2 yr Stags	15 @	\$400	\$6,000	2.25	34
Rsg 3 yr Stags	13 @	\$650	\$8,450	2.5	33
M.A. Stags	58 @	\$700	\$40,600	2.5	145
	116		\$63,300		265
Dollar Investment in deer per stock unit			\$238.64		

Production Parameters:

Death rate. 3%

Velvet yields, ranges and prices are extremely variable. The following assumptions have been made for this gross margin.

Spiker	0.25 kg	Spiker grade
2 yr	1.5 kg	C grade
3 yr	2 kg	B grade
M.A. Stags	3 kg	A grade

No regrowth income is budgeted.

Income:

Velvet				
Spiker	30 @	0.25 kg	\$45 /kg Spiker	
2yr Stags	15 @	1.5 kg	\$80 /kg C grade	
3yr Stags	13 @	2 kg	\$90 /kg B grade	
M.A. Stags	58 @	3 kg	\$120 /kg A grade	
Velvet Sold		230 kg @	\$110.25 per kg	\$25,357.50
Cull stags	20 @	70 kg @	\$6.30 per kg	\$8,820.00

TOTAL INCOME \$34,177.50

Expenditure:

Weaner stags	30 @	\$220		\$6,600.00
Velvetting using veterinarian -				
1st cut	116 @	\$25	\$2,900.00	
2nd cut	35 @	\$23	\$805.00	\$3,705.00
Animal health				
Pour-on	232 @	\$2.46	\$570.72	
Copper bullet(10g)	116 @	\$2.27	\$263.32	\$834.04
Levies -				
Venison				
MAF inspection	10 @	\$8.00	\$80.00	
G.I.B.	1400 @	\$0.16	\$224.00	
Velvet G.I.B & AHB	230 @	\$2.99	\$687.70	\$991.70
TOTAL DIRECT COSTS				\$12,130.74
TOTAL GROSS MARGIN (before interest)				\$22,046.76
GROSS MARGIN per dollar invested in deer				\$0.35
<u>GROSS MARGIN per Stock Unit</u>				<u>\$83.12</u>

**Gross Margin per Stock Unit at Various
velvet prices and velvet yields.**

		VELVET SOLD (kg)		
		207.00	230.00	253.00
AVERAGE	\$90.41	\$58.33	\$65.91	\$73.49
VELVET	\$110.25	\$73.82	\$83.12	\$92.42
PRICE	\$130.10	\$89.30	\$100.32	\$111.35
\$/KG				

Interest on Capital Stock Value:

\$63,300 @	5.5%	\$3,481.50
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Winter Feed - Buy in additional feed

@	\$13 per head	\$1,508.00	\$4,989.50
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RETURN per Stock Unit (after interest and feed)	\$64.31
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3.2.10 Pig - Breeding

PIG GROSS MARGIN Housed Sows Selling Weaners

Capital Stock:

Sows	50 @	\$400	\$20,000	
Boars	2 @	\$800	\$1,600	\$21,600

Production Parameters:

Weaners sold per sow per year	20
Sow replacement rate	40%
Boar replacement rate	50%
Ratio of feed used to pigmeat sold (kg)	6.68
Meal cost as a percentage of total income	64%
Litters per sow per year	2.2

Income:

Weaners at 20kg	1000 @	\$65.00	\$65,000.00	
Chopper Sows	14 @	\$220.00	\$3,080.00	
Chopper Boar	1 @	\$230.00	\$230.00	
TOTAL INCOME				\$68,310.00

Expenditure:

Replacement Stock Purchase -				
Boar	1 @	\$900.00	\$900.00	
Gilts	20 @	\$350.00	\$7,000.00	\$7,900.00
Home milled feed-				
Breeder (t)	64.7 @	\$560.00	\$36,232.00	
Creep (t)	3.1 @	\$600.00	\$1,860.00	
Weaner (t)	22.3 @	\$580.00	\$12,934.00	\$51,026.00
Animal Health	50 @	\$35.00	per Sow	\$1,750.00
Repairs to pens, feeders and water supply (in pen)				\$2,100.00
Electricity				\$1,750.00
TOTAL DIRECT COSTS				\$64,526.00
TOTAL GROSS MARGIN (before interest)				\$3,784.00
GROSS MARGIN per sow				\$75.68
<u>GROSS MARGIN per \$ invested in pigs</u>				<u>\$0.18</u>

**Gross Margin per Sow
at varying weaner prices and feed costs.**

		WEANER PRICE \$/HEAD		
		\$58.50	\$65.00	\$71.50
Feed	\$588.00	(\$90.55)	\$39.45	\$169.45
Cost \$ per tonne	\$560.00	(\$54.32)	\$75.68	\$205.68
(Breeder)	\$532.00	(\$18.09)	\$111.91	\$241.91

Interest Cost:

Interest on Capital Stock Value

\$21,600 @

5.5% per annum

\$1,188.00

Return per pig after interest

\$49.92

3.2.11 Pig - Finishing

PIG GROSS MARGIN

Purchase Weaners and Finish
to 95% Bacon 5% Pork

Capital Stock:

Weaners	1000 @	\$65.00	\$65,000.00
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Production Parameters:

Death Rate - Pork	2%
- Bacon	2.5%
Carcase Weight - Pork	42 kg
- Bacon	65 kg
Ratio of feed used to pigmeat sold (kg)	3.52
Meal cost as a percentage of total income	46%
Purchase to finishing 13 weeks	
Buying 20 kg weaners	

Income:

Porkers	49 @	\$145.00	\$7,105.00
Baconers	926 @	\$243.00	\$225,018.00

TOTAL INCOME	\$232,123.00
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Expenditure:

Replacement stock purchase		
weaners	1000 @	\$65.00 \$65,000.00
Home milled feed -		
Grower mix (t)	177 @	\$500.00 \$88,500.00
Animal Health per weaner	@	\$6.00 \$6,000.00
Repairs - water supply (in-pen), pens and feeders		\$2,100.00
Electricity		\$2,250.00
Freight @ \$1 per weaner and \$3 per Porker/Baconer		\$4,000.00

TOTAL DIRECT COSTS	\$167,850.00
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TOTAL GROSS MARGIN (before interes	\$64,273.00
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GROSS MARGIN per weaner	\$64.27
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<u>GROSS MARGIN per \$ Invested</u>	\$0.99
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**Gross Margin per Weaner
at various Baconer prices and feed costs**

		BACONER PRICE \$/head		
		\$218.70	\$243.00	\$267.30
Grower	\$550.00	\$32.92	\$55.42	\$77.92
Feed	\$500.00	\$41.77	\$64.27	\$86.77
\$/tonne	\$450.00	\$50.62	\$73.12	\$95.62

Interest Cost:

Interest on Capital Stock Value

\$65,000 @

5.5% per annum (13 weeks)

\$893.75

Return per weaner after interest

\$63.38

3.2.12 Poultry - Eggs

POULTRY GROSS MARGIN

Egg Production

Capital Stock: (average value)

Laying Hens	20000 @	\$5.00	\$100,000.00
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Production Parameters:

25 dozen eggs per laying hen (laying life 12 months)

4 % Deaths (50% of deaths replaced during the year)

Income:

Eggs (dozen)	500000 @	\$1.25	\$625,000.00
Salvage Value	19600 @	\$0.05 per hen	\$980.00

TOTAL INCOME	\$625,980.00
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Expenditure:

Replacement Pullets	20400 @	\$10.00 per head	\$204,000.00
Feed	500000 @	\$0.70 per dozen eggs	\$350,000.00
Power	500000 @	\$0.02 per dozen eggs	\$10,000.00
cleaning/repairs to caging	500000 @	\$0.03 per dozen eggs	\$15,000.00

TOTAL DIRECT COSTS	\$579,000.00
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TOTAL GROSS MARGIN per 1000 hens (before interest)	\$46,980.00
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<u>GROSS MARGIN per dollar invested in hens</u>	\$0.47
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**Gross Margin per 20,000 hens at various
feed and egg prices.**

		EGG PRICE \$ per dozen		
		\$1.13	\$1.25	\$1.38
FEED COST	\$0.67	\$1,980.00	\$61,980.00	\$126,980.00
per dozen eggs	\$0.70	(\$13,020.00)	\$46,980.00	\$111,980.00
produced	\$0.74	(\$33,020.00)	\$26,980.00	\$91,980.00

Interest Cost:

Interest on Capital Stock Value:

\$100,000 @ 5.5% \$5,500.00

RETURN per 1000 hens (after interest) \$41,480.00

Note: Feed cost varies between North and South Islands.

72 cents (North Island) and 68 cents (South Island). An average price has been used in this example.

Egg price is extremely variable \$1.10 to \$1.80 depending on the market being supplied (eg selling to grading house compared to grading your own and selling direct to the supermarket

Pullet price also varies.

Source: Egg Producers Federation of New Zealand.

3.2.13 Poultry - Broiler

POULTRY GROSS MARGIN

Broiler production

Production Parameters:

Farm Size (birds placed)	45000
Runs (per year)	6.2
Deaths	3.5%

Birds and feed are supplied by the company.

Income:

Birds	269235 @	\$0.470	\$126,540.45	
Manure			\$4,216.00	
TOTAL INCOME				\$130,756.45

Expenditure:

Water	6.2 @	\$300.00	\$1,860.00	
Power	6.2 @	\$1,950.00	\$12,090.00	
Shavings	6.2 @	\$600.00	\$3,720.00	
Cleaning	6.2 @	\$700.00	\$4,340.00	
Insurance (Birds)	6.2 @	\$200.00	\$1,240.00	
Repairs & Maintenance	6.2 @	\$2,000.00	\$12,400.00	
TOTAL DIRECT COSTS				\$35,650.00
TOTAL GROSS MARGIN				\$95,106.45

GROSS MARGIN per bird	\$0.34
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Gross Margin per 45000 birds placed at different bird prices
and repairs and maintenance costs.

		Broiler Price (\$)		
		\$0.45	\$0.47	\$0.49
Repairs and	\$1,900.00	\$90,341.75	\$95,726.45	\$101,111.15
Maintenance	\$2,000.00	\$89,721.75	\$95,106.45	\$100,491.15
cost per run	\$2,100.00	\$89,101.75	\$94,486.45	\$99,871.15

Source: Poultry Industry Association of New Zealand.

3.3 CROP GROSS MARGINS

The following gross margins relate to an intensive cropping farm in Canterbury, on a medium soil type.

Care should therefore be taken when interpreting these results, as yield and cost estimates will differ according to each individual farm.

Assumptions made are:

- All cultivation work carried out by the farmer.
- All spraying and harvesting done by contract.

Assistance in the preparation of these Gross Margins has been given by staff from the Farm Advisory Service, Lincoln University.

3.3.1 Wheat

WHEAT GROSS MARGIN

Income:

Per tonne delivered	8 t/ha	@	\$320.00 /tonne		\$2,560.00
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Expenditure (per hectare):

Cultivation -					
95 kW tractor -	2.7 hrs	@	\$27.07 /hour		\$73.09
(Fuel \$15.24/hr; R&M \$11.83/hr)					
Seed -	220 kg/ha	@	\$750.00 /tonne		\$165.00
Fertilizer -					
Cropmaster 20	100 kg/ha	@	\$463.50 /tonne	\$46.35	
Urea	300 kg/ha	@	\$400.00 /tonne	\$120.00	
Ammonium Sulphate	150 kg/ha	@	\$377.00 /tonne	\$56.55	\$222.90
Weed, Pest and Disease -					
Commando	4 l/ha	@	\$31.55 /litre	\$126.20	
Cougar	0.75 l/ha	@	\$51.75 /litre	\$38.81	
Glean	15 g/ha	@	\$0.60 /gram	\$9.00	
Cereous	0.51 l/ha	@	\$96.18 /litre	\$49.05	
Cycocel	1.5 l/ha	@	\$10.76 /litre	\$16.14	
Applications	4	@	\$28.00	\$112.00	\$351.20
Irrigation - 75 mm	2 x	@	\$35.50		\$71.00
(Electricity \$25.00; R&M \$10.50)					

Harvest - (in silo; contract)	8 t	@	\$25.00 /tonne	\$200.00
Freight - (silo to port 40 km)	8 t	@	\$20.76 /tonne	\$166.08
TOTAL DIRECT COSTS				\$1,249.27
<u>GROSS MARGIN per Hectare</u>				<u>\$1,310.73</u>

**Gross Margin per Hectare at various
selling prices and yields.**

		YIELD Tonnes/ha		
		7.2	8	8.8
PRICE	\$288.00	\$860.93	\$1,054.73	\$1,248.52
PER	\$320.00	\$1,091.33	\$1,310.73	\$1,530.12
TONNE	\$352.00	\$1,321.73	\$1,566.73	\$1,811.72

3.3.2 Barley

BARLEY GROSS MARGIN

Spring Barley (Fleet; Feed)

Income:

Per tonne 7.5 t/ha @ \$280.00 /tonne \$2,100.00

Expenditure (per hectare):

Cultivation -

95 kW tractor - 2.4 hrs @ \$27.07 /hour \$64.97
(Fuel \$15.24/hr; R&M \$11.83/hr)

Seed - 120 kg/ha @ \$750.00 /tonne \$90.00

Fertilizer -

Cropmaster 20 150 kg/ha @ \$463.50 /tonne \$69.53

Urea 200 kg/ha @ \$400.00 /tonne \$80.00 \$149.53

Weed, Pest and Disease -

Avadex 3.5 l/ha @ \$22.04 /litre \$77.14

Cougar 0.5 l/ha @ \$51.75 /litre \$25.88

Glean 12 g/ha @ \$0.60 /gram \$7.20

Applications 3 @ \$28.00 \$84.00 \$194.22

Irrigation - 75 mm 2 x @ \$35.50 \$71.00
(Electricity \$25.00; R&M \$10.50)

Harvest - 7.5 t @ \$25.00 /tonne \$187.50
(in silo; contract)

Freight - 7.5 t @ \$20.76 /tonne \$155.70
(silo to port 40 kms)

TOTAL DIRECT COSTS \$912.91

GROSS MARGIN per Hectare \$1,187.09

**Gross Margin per hectare at
various selling prices and yields.**

		YIELD Tonnes/ha		
		6	7.5	9
PRICE	\$238.00	\$583.73	\$872.09	\$1,160.45
PER	\$280.00	\$835.73	\$1,187.09	\$1,538.45
TONNE	\$322.00	\$1,087.73	\$1,502.09	\$1,916.45

3.3.3 White Clover

WHITE CLOVER GROSS MARGIN

Income:

Clover (M.D.)	500 kg	@	\$4.00 /kg	\$2,000.00
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Expenditure(per hectare):

Cultivation (direct drill into crop stubble) -

95 kW tractor -	0.8 hr	@	\$27.07 /hour	\$21.66
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(Fuel \$15.24/hr; R&M \$11.83/hr)

Seed	3 kg/ha	@	\$12.00 /kg	\$36.00
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Fertiliser

Cropmaster 20	50 kg/ha	@	\$463.50 /tonne	\$23.18
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Urea	50 kg/ha	@	\$400.00 /tonne	\$20.00	\$43.18
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Weed, Pest and Disease -

Roundup	1 l/ha	@	\$13.39 /litre	\$13.39
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Phorate	5 kg/ha	@	\$8.71 /kg	\$43.55
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Gallant	2.5 l/ha	@	\$79.55 /litre	\$198.88
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Applications	2	@	\$28.00	\$56.00
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Buster	5 l/ha	@	\$30.76 /litre	\$153.80
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Reglone	3 l/ha	@	\$19.96 /litre	\$59.88
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Application	1	@	\$28.00	\$28.00	\$553.50
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Irrigation 75 mm	3 x	@	\$35.50	\$106.50
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(Electricity \$25.00; R&M \$10.50)

Harvest (direct heading -contract)	@	\$220.00 /ha	\$220.00
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Freight	633 kg	@	\$27.00 /tonne	\$17.10
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Seed Dressing	633 kg	@	\$0.35 /kg	\$221.67
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TOTAL DIRECT COSTS	\$1,219.59
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GROSS MARGIN per Hectare	\$780.41
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Gross Margin per Hectare at various selling prices and yields.

		YIELD kg (MD)/Hectare		
		333	500	667
PRICE	\$3.60	\$60.00	\$580.41	\$1,100.82
\$/kg	\$4.00	\$193.33	\$780.41	\$1,367.49
	\$4.40	\$326.66	\$980.41	\$1,634.15

3.3.4 Ryegrass

RYEGRASS GROSS MARGIN

(Embassy)

Income:

Seed (Machine Dressed)	1500 kg	@	\$1.50 /kg	\$2,250.00
Straw	7 bales	@	\$15.00 each	\$105.00
TOTAL INCOME				\$2,355.00

Expenditure(per hectare):

Cultivation -				
95 kW tractor -	2.4 hr	@	\$27.07 /hour	\$64.97
(Fuel \$15.24/hr; R&M \$11.83/hr)				
Seed -	10 kg/ha	@	\$5.80 /kg	\$58.00
Fertiliser -				
Cropmaster 20	100 kg/ha	@	\$463.50 /tonne	\$46.35
Urea (split appln.)	300 kg/ha	@	\$400.00 /tonne	\$120.00
				\$166.35
Weed, Pest and Disease -				
Roundup	2.5 l/ha	@	\$13.39 /litre	\$33.48
Trimec	3.5 l/ha	@	\$16.04 /litre	\$56.14
Commando	5 l/ha	@	\$31.55 /litre	\$157.75
Folicur	0.75 l/ha	@	\$140.44 /litre	\$105.33
Application costs	4	@	\$28.00	\$112.00
				\$464.70
Irrigation (75 mm)	2 x	@	\$35.50	\$71.00
(Electricity \$25.00; R&M \$10.50)				
Harvest - Windrow (contract)		@	\$80.00 /ha	\$80.00
Header (contract)		@	\$195.00 /ha	\$195.00
				\$275.00
Freight - (F.D.)	1.5 t	@	\$27.00 /tonne	\$40.50
Seed Dressing -	1800 kg	@	\$0.16 /kg	\$288.00

TOTAL DIRECT COSTS \$1,428.51

GROSS MARGIN per Hectare \$926.49

Gross margin per Hectare at
various selling prices and yields.

		YIELD kg (MD)/ Hectare		
		1000	1500	2000
PRICE	\$1.35	\$135.99	\$701.49	\$1,266.99
\$/kg	\$1.50	\$285.99	\$926.49	\$1,566.99
	\$1.65	\$435.99	\$1,151.49	\$1,866.99

3.3.5 Fescue

2 year crop (establishment cost spread over the two years)

FESCUE GROSS MARGIN (Advance)**Income:**

Seed (Machine Dressed)	600 kg	@	\$4.00 /kg	\$2,400.00
Straw	12 bales	@	\$18.00 each	\$216.00

TOTAL INCOME	\$2,616.00
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Expenditure(per hectare):

Cultivation -

75 kW tractor -	1.5 hr	@	\$27.07 /hour	\$40.61
(Fuel \$15.24/hr; R&M \$11.83/hr)				

Seed -	10 kg/ha	@	\$9.00 /kg (1st year only)	\$45.00
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Fertiliser -

Cropmaster 20	150 kg/ha	@	\$463.50 /tonne	\$69.53
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Urea (split appln.)	450 kg/ha	@	\$400.00 /tonne	\$180.00
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Application costs	4	@	\$28.00	\$112.00	\$361.53
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Weed, Pest and Disease -

Opus	1 l/ha	@	\$59.38 /litre	\$59.38
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Amistar	0.75 l/ha	@	\$126.93 /litre	\$95.20
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Application costs	2	@	\$28.00 /litre	\$56.00
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Straw Shortener (Moddu	1 l/ha	@	\$125.16 /litre	\$125.16
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Application costs		@	\$28.00	\$28.00	\$363.74
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Irrigation (75 mm)	3 x	@	\$35.50	\$106.50
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(Electricity \$25.00; R&M \$10.50)

Harvest - Windrow (contract)		@	\$80.00 /ha	\$80.00
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Header (contract)		@	\$195.00 /ha	\$195.00	\$275.00
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Freight - (F.D.)	0.720 t	@	\$27.00 /tonne	\$19.44
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Seed Dressing -	720 kg	@	\$0.25 /kg	\$180.00
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TOTAL DIRECT COSTS	\$1,391.81
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<u>GROSS MARGIN per Hectare</u>	<u>\$1,224.19</u>
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**Gross Margin per Hectare at
various selling prices and yields.**

		YIELD kg (MD)/ Hectare		
		450	600	750
PRICE	\$3.60	\$494.05	\$984.19	\$1,474.33
\$/kg	\$4.00	\$674.05	\$1,224.19	\$1,774.33
	\$4.40	\$854.05	\$1,464.19	\$2,074.33

3.3.6 Field Peas

FIELD PEAS GROSS MARGIN (Marrowfat)

Income:

Peas	4 t	@ \$520.00 /tonne	\$2,080.00
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Expenditure (per hectare):

Cultivation -					
95 kW tractor -	2.94 hr	@	\$27.07 /hour		\$79.59
(Fuel \$15.24/hr; R&M \$11.83/hr)					
Seed	290 kg/ha	@	\$880.00 /tonne		\$255.20
Fertilizer -					
Superphosphate	125 kg/ha	@	\$180.00 /tonne		\$22.50
Weed, Pest and Disease -					
Tropotox Plus	2 l/ha	@	\$13.51 /litre	\$27.02	
Bladex	2.5 l/ha	@	\$21.60 /litre	\$54.00	
Topas	300 ml/ha	@	\$239.11 /litre	\$71.73	
Applications	2	@	\$28.00	\$56.00	\$208.75
Irrigation (75 mm)	2 x	@	\$35.50		\$71.00
(Electricity \$25.00; R&M \$10.50)					
Windrow		@	\$80.00 /ha		\$80.00
Harvest -		@	\$195.00 /tonne		\$195.00
(in silo; contract)					
Freight - (40 km)	4 t/ha	@	\$27.00 /tonne		\$108.00

TOTAL DIRECT COSTS	\$1,020.04
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<u>GROSS MARGIN</u> per Hectare	\$1,059.96
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Gross Margin per Hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		3.2	4	4.6
PRICE	\$442.00	\$415.96	\$747.96	\$996.96
PER	\$520.00	\$665.56	\$1,059.96	\$1,355.76
TONNE	\$598.00	\$915.16	\$1,371.96	\$1,714.56

3.3.7 Maize

MAIZE GROSS MARGIN

Milling Grade (Hybrid N5901) - Gisborne 2001-2002

Income:

Per tonne	11.45 t/ha	@ \$291.25 /tonne	\$3,334.81
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Expenditure (per hectare):

Cultivation -

Plough	\$122.00
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Disc/harrow/roll	\$100.00
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Power harrow/roll	\$110.00
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Drilling	\$90.00
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Seed (80,000 per ha)	\$225.00
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Fertiliser (15 10 10)	250 kg/ha @	\$400.00 /tonne	\$100.00
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Application	1	@	\$55.00	\$55.00
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Side dressing (Urea)	250 kg/ha @ \$400.00 /tonne	\$100.00
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Weed, Pest and Disease -

Trophy	6 l/ha @	\$15.83 /litre	\$94.98
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Application	1	@	\$27.00	\$27.00
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Harvest	12.5 t	@	\$18.00 /tonne	\$225.00
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Freight	12.5 t	@	\$8.00 /tonne	\$100.00
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Drying	12.5 t	@	\$21.00 /tonne	\$262.50
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TOTAL DIRECT COSTS	\$1,611.48
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GROSS MARGIN per Hectare \$1,723.33

Gross Margin per hectare at
various selling prices and yields.

		YIELD Tonnes/ha		
		9.7325	11.45	13.1675
PRICE	\$262.13	\$1,027.78	\$1,389.85	\$1,751.93
PER	\$291.25	\$1,311.24	\$1,723.33	\$2,135.43
TONNE	\$320.38	\$1,594.69	\$2,056.81	\$2,518.93

Source: Corson Grain Gisborne

MAIZE GROSS MARGIN
Grain Contract - Waikato 2001-2002

Income:

Per tonne 12.48 t/ha @ \$300.00 /tonne \$3,744.00

Expenditure (per hectare):

Cultivation -

Roundup plus application \$85.00

Disc/ power harrow \$250.00

Drilling \$85.00

Seed (treated) \$345.00

Fertiliser (15% potash supe 300 kg/ha @ \$300.00 /tonne \$90.00

Cropzcal 14 12 12 250 kg/ha @ \$700.00 /tonne \$175.00

Lime 2.5 t/ha @ \$20.00 /tonne \$50.00

Sidedressing (N-Rich) 250 kg/ha @ \$640.00 /tonne \$160.00

Weed, Pest and Disease -

Pre-emergence weed control - includes application

Atrazine (3 litres per ha) and Rousabout (3 litre per ha) \$168.00

Harvest 14 t @ \$21.43 /tonne \$300.02

Freight 14 t @ \$18.00 /tonne \$252.00

Drying 14 t @ \$24.00 /tonne \$336.00

TOTAL DIRECT COSTS **\$2,296.02**

GROSS MARGIN per Hectare **\$1,447.98**

**Gross Margin per hectare at
various selling prices and yields.**

		YIELD Tonnes/ha		
		10.608	12.48	14.352
PRICE	\$270.00	\$701.34	\$1,073.58	\$1,445.82
PER	\$300.00	\$1,019.58	\$1,447.98	\$1,876.38
TONNE	\$330.00	\$1,337.82	\$1,822.38	\$2,306.94

Source: Wrightson Grain Matamata

3.3.8 Silage

WHEAT SILAGE GROSS MARGIN

Income:

Per tonne 15000 kg/ha @ \$0.23 /kg \$3,450.00

Expenditure (per hectare):

Cultivation -
 95 kW tractor - 3 hrs @ \$27.07 /hour \$81.21
 (Fuel \$15.24/hr; R&M \$11.23/hr)
 Seed - 200 kg/ha @ \$700.00 /tonne \$140.00
 Fertilizer -
 DAP 150 kg/ha @ \$557.00 /tonne \$83.55
 Urea 425 kg/ha @ \$383.00 /tonne \$162.78 \$246.33
 Weed, Pest and Disease -
 Cougar 0.3 l/ha @ \$51.75 /litre \$15.53
 Glean 15 g/ha @ \$0.60 /gram \$9.00
 Sumi-Alpha 0.08 l/ha @ \$83.56 /litre \$6.68
 Perkekthion 0.5 l/ha @ \$23.47 /litre \$11.74
 Opus 1 l/ha @ \$59.38 /litre \$59.38
 Applications 4 @ \$28.00 \$112.00 \$214.32
 Harvest - 15000 kg/ha @ \$0.10 /kg \$1,500.00

TOTAL DIRECT COSTS \$2,181.86

GROSS MARGIN per Hectare \$1,268.14

Gross Margin per Hectare at various selling prices and yields.

		YIELD kg/ha		
		12750	15000	17250
Price	\$0.20	\$535.77	\$750.64	\$965.52
\$ per	\$0.23	\$975.64	\$1,268.14	\$1,560.64
kg	\$0.26	\$1,415.52	\$1,785.64	\$2,155.77

MAIZE SILAGE GROSS MARGIN

Income: _____

Per tonne	18000 kg/ha	@	\$0.27 /kg	\$4,860.00
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Expenditure (per hectare):

Cultivation -

95 kW tractor -	4 hrs	@	\$27.07 /hour	\$108.28
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(Fuel \$15.24/hr; R&M \$11.23/hr)

Seed -	105000 seed/ha @ \$280.00 /80,000	\$367.50
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Fertilizer -

Nitrophoska	350 kg/ha	@	\$589.00 /tonne	\$206.15
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Cropmaster 20	150 kg/ha	@	\$463.50 /tonne	\$69.53
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Urea	200 kg/ha	@	\$383.00 /tonne	\$76.60	\$352.28
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Weed, Pest and Disease -

Gesaprim (atrazine)	2 l/ha	@	\$12.00 /litre	\$24.00
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Dicamba	1 l/ha	@	\$20.02 /litre	\$20.02
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Versatill	300 ml/ha	@	\$79.69 /litre	\$23.91
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Applications	3	@	\$28.00	\$84.00	\$151.93
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Harvest -	18000 t	@	\$0.12 /tonne	\$2,160.00
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(in silo; contract)

TOTAL DIRECT COSTS	\$3,139.98
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<u>GROSS MARGIN</u> per Hectare	\$1,720.02
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Gross Margin per hectare at various selling prices and yields.

		YIELD kg/ha		
		14400	18000	21600
Price	\$0.23	\$596.82	\$991.02	\$1,385.22
\$ per	\$0.27	\$1,180.02	\$1,720.02	\$2,260.02
kg	\$0.31	\$1,763.22	\$2,449.02	\$3,134.82

3.3.9 Summary of Gross Margins for Canterbury 2000/2001

(prepared by *Agriculture New Zealand*)

Crop	Yield/ha	Price	Income	Expenditure	Gross Margin
Feed Barley	7 t	\$250	\$1750	\$1338.86	\$611.14
Malting Barley	6.5 t	\$280	\$1820	\$1234.01	\$785.99
Biscuit Wheat	7 t	\$300	\$2100	\$1493.15	\$606.85
Feed Wheat	10 t	\$250	\$2500	\$1811.55	\$688.45
Milling Wheat	7.5 t	\$310	\$2325	\$1473.66	\$851.34
Garden Peas	3.5 t	\$550	\$1925	\$1226.27	\$698.73
Marrowfat Peas	4 t	\$450	\$1800	\$1170.27	\$629.73
Freezer Peas	6 t	\$300	\$1800	\$1103.79	\$696.21
Sweetcorn	15 t	\$135	\$2025	\$1079.23	\$945.77
Perennial Ryegrass	1600 kg	\$1.30	\$2480	\$1893.21	\$586.79
White Clover	500 kg	\$3.50	\$1750	\$1152.36	\$597.64
Brassica Seed	1500 kg	\$1.50	\$2250	\$1342.83	\$907.17
Lucerne Hay	50 t	\$50	\$2500	\$1459.41	\$1040.59
Meadow Hay	50 t	\$40	\$2000	\$1273.78	\$726.22
Lucerne Balage	50 t	\$60	\$3000	\$1281.25	\$1718.75
Maize Silage	18 t	\$150	\$2700	\$1715.85	\$984.15
Whole Crop Wheat Silage	14 t	\$150	\$2100	\$1150.53	\$949.47

Source: Process Vegetable Sector, New Zealand Vegetable and Potato Growers Federation.

3.4 VEGETABLE GROSS MARGINS

3.4.1 Process Crops - Production Cost Models

Editors' note:

The following production cost models (compiled June 2001) have been kindly provided by the *Process Vegetable Sector, New Zealand Vegetable and Potato Growers Federation*. The cost models are accompanied by notes on methodology (published here in part) and the Federation's disclaimer:

Methodology:

The cost models are based upon the activities of a "typical" grower using sound growing and other business practices.

The costings are designed to give growers a realistic breakdown of the costs of production for selected process crops within major growing areas. (Editors' note: The Federation's costings of indirect or overhead expenses, apart from overheads for tractors and equipment, have been omitted from this section. Costings for labour have also been omitted apart from contract labour requirements).

The costs of running tractors and equipment have been established by allocating the capital cost less resale value over the economic life and adding the cost of financial charges, maintenance, insurance and fuel. The cost of irrigation equipment has been calculated on the economic life of the irrigation equipment. Also included in the cost of irrigation equipment are the interest charges, insurance, maintenance and operating costs (electricity or fuel).

Where crops are harvested by processors and the costs charged in effect by deduction against growers' returns, the cost factors for harvesting are disregarded, and the growers' revenues are shown net of harvesting and delivery costs.

Where harvesting is the responsibility of the grower, it is common practice to employ a specialist contract harvester and accordingly contract rates are included.

Federation's Disclaimer:

The costings have been prepared by the *New Zealand Vegetable and Potato Growers Federation (Inc.)*. Every effort has been made to ensure the accuracy of the costings. However, growers use these costings at their own risk, and the Federation disclaims any responsibility and accepts no liability for any reliance on or use of the costings for any purpose whatsoever.

3.4.2 Green Beans (Source: Process Vegetable Sector, N.Z. Vegetable and Potato Growers Federation)

GREEN BEANS (PROCESS)

Production Cost Model 2001

Canterbury District

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Liming - 2.5 t/ha every 5 years	0.5 t/yr	\$32.00 /t	\$16.00
Pre-work - grubbing 3 times	1.5 hrs	\$70.46 /hr	\$105.69
Preparation seedbed			
roll once	0.4 hrs	\$61.91 /hr	\$24.76
plough once	1.1 hrs	\$84.52 /hr	\$92.97
maxitill 3 times	1.2 hrs	\$70.46 /hr	\$84.55
roll once	0.4 hrs	\$61.91 /hr	\$24.76
Pre-emergence spray contract		\$22.00 /ha	\$22.00
Treflan	2.1 l	\$11.46 /l	\$24.07
Sowing contract		\$110.00 /ha	\$110.00
seed	110 kg	\$7.43 /kg	\$817.30
fertiliser - Cropmaster 15	0.375 t	\$503.51 /t	\$188.82
Post emergence spray contract		\$22.00 /ha	\$22.00
Basagran	2 l	\$39.38 /l	\$78.76
Cittowet	0.1 l	\$11.82 /l	\$1.18
ground spray contract		\$22.00 /ha	\$22.00
Topsin	2.5 l	\$39.65 /l	\$99.13
ground spray contract		\$22.00 /ha	\$22.00
Sumisclex	2 l	\$50.93 /l	\$101.86
Irrigation 5 times	25 hrs	\$24.21 /hr	\$605.25
Labour	5 hrs	\$18.10 /hr	\$90.50
REVENUE			
Price received* (10.5-11mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	8	10	11
TOTAL REVENUE	\$2,400	\$3,000	\$3,300
Less growing Costs (from above)	\$2,554	\$2,554	\$2,554
SURPLUS	(\$154)	\$446	\$746

GREEN BEANS (PROCESS)

Production Cost Model 2001

Hawkes Bay/Heretaunga Plains

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Preparation seedbed			
chip hoe once	1.6 hrs	\$88.52 /hr	\$141.63
plough once	1.6 hrs	\$61.33 /hr	\$98.13
roll once	0.6 hrs	\$55.05 /hr	\$33.03
disc harrow and roll twice	1.3 hrs	\$61.33 /hr	\$79.73
rollatill 4 times	2.6 hrs	\$61.33 /hr	\$159.46
roll once	0.4 hrs	\$55.05 /hr	\$22.02
Pre-emergence spray contract		\$31.50 /ha	\$31.50
Triflur	2 l	\$14.06 /l	\$28.12
alachlor	5 l	\$13.25 /l	\$66.25
Sowing contract		\$85.00 /ha	\$85.00
seed	111 kg	\$4.80 /kg	\$532.80
fertiliser - AMMO 12:10:10	0.25 t	\$712.00 /t	\$178.00
Cultivation			
harrow once	0.6 hrs	\$55.05	\$33.03
inter row cultivate twice	3.5 hrs	\$55.05	\$192.68
Post emergence spray contract	0.7 hrs	\$57.37 /ha	\$40.16
Kocide	1.5 kg	\$90.00 /kg	\$135.00
Metasystox	0.57 l	\$35.19 /l	\$20.06
contract twice		\$105.60 /ha	\$105.60
Sumisclex	4 l	\$45.00 /l	\$180.00
Karate	0.2 l	\$99.50 /l	\$19.90
Irrigation 3 times	20 hrs	\$49.44 /hr	\$988.80
Labour	7 hrs	\$19.60 /hr	\$137.20
 TOTAL GROWING COSTS			 \$3,308.09
 REVENUE			
Price received	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	10	13	16
 TOTAL REVENUE	 \$2,970	 \$3,900	 \$4,800
 Less growing Costs (from above)	 \$3,308	 \$3,308	 \$3,308
 SURPLUS	 (\$338)	 \$592	 \$1,492

3.4.3 Sweetcorn *(Source: Process Vegetable Sector, N.Z.Vegetable and Potato Growers Fede*

SWEETCORN (PROCESS)

Production Cost Model 2001

Rangitikei District

<u>Growing Costs Operation</u>	<u>Hours/Qty Hectare</u>	<u>Unit Rate</u>	<u>Total Cost \$ per ha</u>
Liming - 2.5 t/ha every 2 years	1.25 t/yr	\$26.50 /t	\$33.13
Preparation seedbed			
plough once	1.1 hr	\$86.02 /hr	\$94.62
disc and harrow once	1 hr	\$71.96 /hr	\$71.96
power harrow twice	1.5 hrs	\$112.08 /hr	\$168.12
level once	0.4 hrs	\$71.96 /hr	\$28.78
Sowing contract		\$85.00 /ha	\$85.00
seed	12 kg	\$28.32 /kg	\$339.84
nitro 12:10:10	0.25 t	\$588.00 /t	\$147.00
Pre emergence spray			
contract boom spray		\$32.50 /ha	\$32.50
Roustabout	3 l	\$39.00 /l	\$117.00
Post emergence spray			
aerial spray contract		\$35.00 /ha	\$35.00
Hallmark once	0.5 l	\$80.00 /ha	\$40.00
Inter-row cultivation contract		\$38.00 /ha	\$38.00
Maintenance of land			
flail stubble once	1 hr	\$71.96 /hr	\$71.96
TOTAL GROWING COSTS			\$1,302.91
REVENUE			
Price received per tonne	\$125	\$125	\$125
Crop yield paid weight (tonnes per ha)	15	17	19
TOTAL REVENUE	\$1,875	\$2,125	\$2,375
Less growing Costs (from above)	\$1,303	\$1,303	\$1,303
SURPLUS	\$572	\$822	\$1,072

SWEETCORN (PROCESS)

Production Cost Model 2001

Marlborough District

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Liming - 2.5 t/ha every 5 years	0.5 t/yr	\$50.00 /t	\$25.00
Preparation seedbed			
chip hoe once	1.6 hr	\$97.65 /hr	\$156.24
plough once	1.6 hrs	\$84.52 /hr	\$135.23
roll once	0.6 hrs	\$61.91 /hr	\$37.15
deep ripping	1.2 hrs	\$70.46 /ha	\$84.55
rollatill twice	1 hrs	\$70.46 /hr	\$70.46
harrow and roll 2 times	1 hrs	\$61.91 /hr	\$61.91
Sowing contract			
seed		\$448.00 /ha	\$448.00
contract sowing		\$75.00 /ha	\$75.00
fertiliser-cropmaster 15	0.37 t	\$526.35 /t	\$194.75
Post emergence spray		\$26.00 /ha	\$26.00
atrazine	3 l	\$15.55 /l	\$46.65
lorsban	0.6 l	\$41.24 /l	\$24.74
Scarify and side dress	1.25 hrs	\$61.91 /hr	\$77.39
urea	0.124 t	\$505.24 /t	\$62.65
Irrigation 3 times	18 hrs	\$20.17 /hr	\$363.06
labour	4 hrs	\$18.10 /hr	\$72.40
TOTAL GROWING COSTS			\$1,961.18
REVENUE			
Price received per tonne	\$145	\$145	\$145
Crop yield paid weight (tonnes per ha)	18	20	22
TOTAL REVENUE	\$2,610	\$2,900	\$3,190
Less growing Costs (from above)	\$1,961	\$1,961	\$1,961
SURPLUS	\$649	\$939	\$1,229

SWEETCORN (PROCESS)

Production Cost Model 2001

Gisborne District

Growing Costs Operation	Hours/Qty Hectare	Unit Rate	Total Cost \$ per ha
Preparation seedbed			
spray pasture		\$44.50 /ha	\$44.50
glyphosate	2.5 l	\$9.00 /l	\$22.50
plough once		\$125.00 /ha	\$125.00
disc and roll twice		\$97.00 /ha	\$97.00
power harrow and roll twice		\$246.00 /ha	\$246.00
Sowing contract incl.fertiliser application		\$88.75 /ha	\$88.75
seed	12 kg	\$33.18 /kg	\$398.16
fertiliser-AMMO 15:10:10	0.25 t	\$513.00 /t	\$128.25
scarify and side dress	1 hr	\$57.50 /hr	\$57.50
urea	0.2 t	\$489.00 /t	\$97.80
Pre emergence spray (contract)		\$44.50 /ha	\$44.50
soil incorporation		\$123.00 /ha	\$123.00
trophy	6 l	\$16.80 /l	\$100.80
Post emergence spray		\$44.50 /ha	\$44.50
cutworm-karate	0.04 l	\$525.00 /ha	\$21.00
weeds-atrazine	2 l	\$8.50 /ha	\$17.00
Headland fortune spraying oil	0.5 l	\$11.90 /ha	\$5.95
Spray for green vegetable bug (aerial)		\$60.00 /ha	\$60.00
tamaron	1 l	\$32.00 /hr	\$32.00
Land maintenance			
disc and roll twice		\$97.00 /ha	\$97.00
subsoil once		\$100.00 /ha	\$100.00
TOTAL GROWING COSTS			\$1,951.21
REVENUE			
Price received per tonne (Jubilee)	\$131	\$131	\$131
Crop yield paid weight (tonnes per ha)	16	17.5	19
TOTAL REVENUE	\$2,096	\$2,293	\$2,489
Less growing Costs (from above)	\$1,951	\$1,951	\$1,951
SURPLUS	\$145	\$341	\$538

3.4.4 Peas (Source: Process Vegetable Sector, N.Z. Vegetable and Potato Growers Federation)

PEAS (PROCESS)

Production Cost Model 2001

Canterbury District

<u>Growing Costs Operation</u>	<u>Hours/Qty Hectare</u>	<u>Unit Rate</u>	<u>Total Cost \$ per ha</u>
Liming - 2.5 t/ha every 5 years	0.5 t/yr	\$32.00 /t	\$16.00
Pre-work - grubbing 3 times	1.5 hrs	\$70.46 /hr	\$105.69
Preparation seedbed			
roll once	0.4 hr	\$61.91 /hr	\$24.76
plough once	1.1 hrs	\$84.52 /hr	\$92.97
maxitill twice	0.8 hr	\$70.46 /hr	\$56.37
Pre-emergence spray contract		\$18.00 /ha	\$18.00
Treflan	2.1 l	\$11.46 /l	\$24.07
Sowing	0.8 hr	\$113.38 /hr	\$90.70
seed	300 kg	\$1.41 /kg	\$423.00
fertiliser - PM super	0.15 t	\$569.51 /t	\$85.43
Cultivation			
roll 1 time	0.4 hrs	\$61.91 /hr	\$24.76
Post emergence spray contract		\$18.00 /ha	\$18.00
MCPB	2 l	\$13.07 /l	\$26.14
Bladex	2.5 l	\$20.89 /l	\$52.23
Irrigation 3 times	15 hrs	\$24.21 /hr	\$363.15
Labour	3 hrs	\$18.10 /hr	\$54.30
TOTAL GROWING COSTS			\$1,475.57
REVENUE			
Price received (11.5-12mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	6.0	6.5	7
TOTAL REVENUE	\$1,800	\$1,950	\$2,100
Less growing Costs (from above)	\$1,476	\$1,476	\$1,476
SURPLUS	\$324	\$474	\$624

* Editors' Note: See also *Section 1.14.15* for further contract price information

PEAS (PROCESS)
Production Cost Model 2001
South Canterbury District

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Liming - 2.5 t/ha every 7 years	0.36 t/yr	\$28.00 /t	\$10.08
Pre-work - grubbing 3 times	1.5 hrs	\$70.46 /hr	\$105.69
Preparation seedbed			
plough once	1 hrs	\$84.52 /hr	\$84.52
roll once	0.4 hrs	\$61.91 /hr	\$24.76
grub and harrow twice	1 hrs	\$70.46 /hr	\$70.46
Pre-emergence spray contract		\$18.00 /ha *	\$3.60
Roundup	2.5 l	\$12.85 /l *	\$6.43
Sowing	0.6 hr	\$113.38 /hr	\$68.03
seed	280 kg	\$1.22 /kg	\$341.60
cartage - seed and fertiliser	0.465 t	\$20.00 /t	\$9.30
fertiliser - ammophos/hycrop pea	0.185 t	\$520.00 /t	\$96.20
roll once	0.4 hrs	\$61.91 /hr	\$24.76
Post emergence spray contract		\$18.00 /ha	\$18.00
MCPB	1.4 l	\$12.20 /l	\$17.08
Bladex	2.5 kg	\$21.20 /kg	\$53.00
Gallant (wild oats)	1 l	\$79.10 /l *	\$15.82
ground spray contract for above		\$18.00 /ha *	\$3.60
Rubigan (fungicide)	0.25 l	\$100.00 /l *	\$5.00
ground spray contract for above		\$18.00 /ha *	\$3.60
Irrigation - capital and running co:	6 hrs	\$22.37 /hr	\$134.22
Labour	1.5 hrs	\$18.10 /hr	\$27.15
TOTAL GROWING COSTS			\$1,122.90
REVENUE			
Price received TR 4-5 per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	4.5	5	5.5
TOTAL REVENUE	\$1,350	\$1,500	\$1,650
Less growing Costs (from above)	\$1,123	\$1,123	\$1,123
SURPLUS	\$227	\$377	\$527

* 20% of properties only

PEAS (PROCESS)

Production Cost Model 2001

Rangitikei

<u>Growing Costs of Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Liming - 2.5 t/ha every 2 years	1.25 t/yr	\$26.50 /yr	\$26.50
Preparation seedbed			
plough once	1.1 hrs	\$86.02 /hr	\$94.62
disc and harrow once	1 hrs	\$86.02 /hr	\$86.02
power harrow twice	1.5 hrs	\$112.08 /hr	\$168.12
level once	0.4 hrs	\$71.96 /hr	\$28.78
Sowing contract			
contract sowing		\$45.00 /ha	\$45.00
seed and cartage	250 kg	\$1.32 /kg	\$330.00
roll	0.4 hrs	\$55.05 /hr	\$22.02
contract fertiliser spreading and cartage		\$41.00 /ha	\$41.00
30% P Super	0.25 t	\$276.00 /t	\$69.00
Post emergence spray contract		\$30.00 /ha	\$30.00
bladex	3 l	\$25.00	\$75.00
mcpb	1.4 l	\$14.25 /l	\$19.95
mcpa	0.15 l	\$7.50 /l	\$1.13
Mildew spray contract aerial		\$35.00 /ha	\$35.00
folicur	0.25 l	\$140.00 /l	\$35.00
TOTAL GROWING COSTS			\$1,107.14
REVENUE			
Price received TR 5 per tonne	\$300	\$300	\$300
Crop yield paid weight tonnes per ha	5.5	6	6.5
TOTAL REVENUE	\$1,650.00	\$1,800.00	\$1,950.00
Less growing Costs (from above)	\$1,107.14	\$1,107.14	\$1,107.14
SURPLUS	\$542.86	\$692.86	\$842.86

PEAS (PROCESS)
Production Cost Model 2001
Marlborough

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Liming - 2.5 t/ha every 5 years	0.5 t/yr	\$50.00 /t	\$25.00
Preparation seedbed			
chip hoe once	1.6 hrs	\$97.65 /hr	\$156.24
harrow and roll once	0.5 hrs	\$61.91 /hr	\$30.96
plough once	1.6 hrs	\$70.46 /hr	\$112.74
rotatill 3 times	1.5 hrs	\$70.46 /hr	\$105.69
harrow and roll twice	1 hrs	\$61.91	\$61.91
Sowing contract		\$61.91 /ha	\$61.91
seed	300 kg	\$1.20 /kg	\$360.00
fertiliser - Super	0.25 t	\$198.78 /t	\$49.70
Post emergence spray contract		\$26.00 /t	\$26.00
topoguard	0.9 l	\$54.40 /l	\$48.96
TOTAL GROWING COSTS			\$1,039.10
REVENUE			
Price received (11.5-12mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	4.5	5.5	6.5
TOTAL REVENUE	\$1,350	\$1,650	\$1,950
Less growing Costs (from above)	\$1,039	\$1,039	\$1,039
SURPLUS	\$311	\$611	\$911

PEAS (PROCESS)
Production Cost Model 2001
Central Hawkes Bay

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Preparation seedbed			
plough once	1.6 hrs	\$75.39 /hr	\$120.62
disc and roll once	0.9 hrs	\$75.39 /hr	\$67.85
disc and harrow twice	1.6 hrs	\$75.39 /hr	\$120.62
Sowing contract-drill		\$65.00 /ha	\$65.00
seed (storage and transport)	270 kg	\$1.08 /kg	\$291.60
fertiliser -P super	0.25 t	\$280.00 /t	\$70.00
roll once	1 hr	\$55.05 /hr	\$55.05
Post emergence spray contract		\$31.50 /ha	\$31.50
MCPB	1.4 l	\$11.03 /l	\$15.44
Bladex	3 l	\$24.07 /l	\$72.21
Restoration of land			
cultivation			
disc and harrow twice	1.6 hrs	\$61.33 /hr	\$98.13
TOTAL GROWING COSTS			\$1,008.03
REVENUE			
Price received (11.5-12mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	4.5	5	5.5
TOTAL REVENUE	\$1,350	\$1,500	\$1,650
Less growing Costs (from above)	\$1,008	\$1,008	\$1,008
SURPLUS	\$342	\$492	\$642

3.4.5 Carrots (Dicing) (Source: N.Z. Vegetables and Potato Growers Federation (Inc.))

CARROTS (DICING)

Production Cost Model 1998 (2001 detail unavailable)

Canterbury

<u>Growing Costs Operation</u>	<u>Hours/Qty Hectare</u>	<u>Unit Rate</u>	<u>Total Cost \$ Hectare</u>
Out of grass contract spray		\$18.00 /ha	\$18.00
glyphosate	3 l	\$11.33 /l	\$33.99
Preparation Seedbed			
plough 1 time*	1 hr	\$74.26 /hr	\$74.26
rotary hoe 2 times	3 hrs	\$82.15 /hr	\$246.45
Fertiliser crop 15	0.5 t	\$451.00 /t	\$225.50
application (contract)		\$13.00 /ha	\$13.00
level	1 hr	\$63.80 /hr	\$63.80
Sowing (contract)		\$180.00 /ha	\$180.00
seed	1.5 kg	\$150.00 /ha	\$225.00
Insecticide application (contract)		\$18.00 /t	\$18.00
phorate	11 kg	\$8.42 /kg	\$92.62
Pre-emergence spray contract		\$18.00 /ha	\$18.00
stomp	3 l	\$28.04 /l	\$84.12
Post emergence spray contract		\$18.00 /ha	\$18.00
linuron	0.5 kg	\$33.60 /kg	\$16.80
gesagard	0.5 l	\$44.62 /l	\$22.31
Scarify 2 times	2 hrs	\$48.96 /hr	\$97.92
urea	0.2 t	\$446.18 /t	\$89.24
Irrigation 4 times	20 hrs	\$20.21 /hr	\$404.20
labour	4 hrs	\$15.00 /hr	\$60.00
Topping (contract)		\$100.00 /ha	\$100.00
TOTAL DIRECT GROWING COSTS (excl harvesting)			\$2,101.21
Harvesting yield (t)	50	70	90
contract \$30/tonne	\$1,500	\$2,100	\$2,700
labour \$2.50/t/person x 2	\$250	\$350	\$450
bulk transport \$8/t	\$400	\$560	\$720
TOTAL GROWING COSTS	\$4,251	\$5,111	\$5,971
REVENUE			
Price received per tonne	\$87	\$87	\$87
Yield (t) per hectare	50	70	90
TOTAL REVENUE	\$4,350	\$6,090	\$7,830
GROSS MARGIN	\$99	\$979	\$1,859

3.4.6 Process Vegetable Crop Gross Margins 2000-2001 - Canterbury Summary

Crop	Gross Margin per ha
Carrots	\$1273
Peas	\$696
Potatoes	\$2150
Sweetcorn	\$945

Source: Agriculture New Zealand and Horticultural Monitoring Report – July 2001

3.4.7 Main Crop Vegetable Gross Margins (\$ per ha)

Crop	2001	2000	1999	1998	1997
Broccoli	-\$250	\$2,545	\$2,677	\$532	\$3,555
Cabbage	\$3,060	\$3,211	\$3,223	\$4,874	\$2,056
Cauliflower	\$3,250	\$3,672	\$3,762	\$4,257	\$4,013
Lettuce	\$3,695	\$2,673	\$2,454	\$2,996	\$3,044
Onions	\$1,035	-\$1,353	\$3,142	\$6,298	-\$1,262
Potatoes	\$950	-\$57	\$1,099	\$977	\$290

Source: Agriculture New Zealand and Horticultural Monitoring Report – July 2001

3.5 FRUIT GROSS MARGINS

The following Gross Margins are included to give an indication of current profitability. Figures have been derived mainly from MAF Monitoring forecasts. Care should be taken when interpreting these results, as yield and cost estimates will differ according to each individual property.

3.5.1 Export Apples

EXPORT APPLE GROSS MARGIN

Hawkes Bay 2001/2002

Based on effective planted area at full production of 12 ha with a conservative yield and an export price averaged over a range of varieties. (Figures are forecast for 2001/2002.)

Income:

Apple Sales (mix of varieties)

Advanced	\$21,553	
Deferred	\$13,103	
Local/Gate Sales	\$593	
		\$35,249

Expenditure (per hectare):

Fertiliser	\$96	
Spray and Chemicals	\$1,845	
Pollination	\$64	
Electricity	\$120	
Casual wages - pruning	\$868	
- thinning	\$1,443	
- picking	\$4,606	
- other	\$754	
- ACC	\$191	\$7,862
Grading and Packing		\$13,224
Freight		\$450
Coolstore charges		\$3,967
Vehicles		\$826
Administration and Sundry		\$2,000
Repairs and maintenance		\$410
TOTAL DIRECT COSTS		\$30,864
GROSS MARGIN PER HECTARE		\$4,385
<u>GROSS MARGIN per Tray Carton Equivalent</u>		\$3.24

Updated for 2001/2002 using forecast figures from *Horticulture Monitoring Report (MAF) - July 2001*.

3.5.2 Kiwifruit

ZESPRI™ GREEN - Bay of Plenty 2001/2002 season

Income: (Based on effective planted area at full production)

Trays per hectare (export)	6700 /ha @	\$5.15	\$34,505.00
Final payment (from previous season *)		\$0.46	\$3,082.00
Local Sales			\$1,000.00

Expenditure (per hectare):

Administration		\$2,447.00	
Fertiliser		\$1,200.00	
Pollination		\$900.00	
Spraying and Chemicals		\$975.00	
Casual Wages - Pruning and general	\$5,797.00		
- Picking	\$1,537.00	\$7,334.00	
Grade and Pack		\$10,102.00	
Electricity		\$200.00	
Vehicle Expenses		\$1,090.00	
Repairs and Maintenance		\$1,525.00	
Other		\$270.00	

TOTAL DIRECT COSTS \$26,043.00

GROSS MARGIN PER HECTARE \$12,544.00

GROSS MARGIN per Tray \$1.87

ZESPRI™ GOLD - Bay of Plenty 2001/2002 season

Income: (Based on effective planted area at full production)

Trays per hectare (export)	7500 /ha @	\$7.30	\$54,750.00
Final payment (from previous season *)		\$0.23	\$1,725.00
Local Sales			\$700.00

Expenditure (per hectare): as above \$26,043.00

GROSS MARGIN PER HECTARE \$31,132.00

GROSS MARGIN per Tray \$4.65

* Residual payment for each crop is paid to growers in the next financial year.

Updated for 2001/2002 using forecast figures from *Horticulture Monitoring Report (MAF) - July 2001*

3.5.3 Summerfruit Gross Margin Trends

Crop	Region	Market	Gross Margin (\$ per ha)	
			1999/2000	2000/2001
Apricots	Otago	Export/local/process	\$18,200	\$17,340
		Process	-	\$7,570
		Local/process	\$5,940	\$9,552
	Hawkes Bay	Local	\$8,740	\$18,100
Cherries	Otago	Local	-	\$11,446
		Export/local	-	\$73,747
Nectarines	Otago	Export/local	-	\$14,100
	Hawkes Bay	Local/process	\$892	\$17,470
Plums	Otago	Local/process	\$6,651	\$7,651
	Hawkes Bay	Local	\$6,950	\$20,500
Peaches	Hawkes Bay	Local	\$9,880	\$17,470
		Process	\$9,700	\$4,500

Source: Horticulture Monitoring Report – July 2001

3.5.4 Berryfruit Gross Margin Trends

Berryfruit	Product	Gross Margin \$ per ha	
		1999/2000	2000/2001
Strawberries	Fresh	\$27,259	\$28,498
Blueberries	Fresh	\$38,863	\$34,406
	Frozen	\$3,380	\$5,479
Boysenberries	Frozen	\$5223	\$3,340
Raspberries	Frozen	\$17,401	-
Blackcurrants	Frozen	\$4,374	\$4,601

Source: NZ Berryfruit Growers Federation Inc, Strawberry Growers New Zealand, Horticulture Monitoring Report July 2001.

3.5.5 Wine Grapes

PREMIUM WINE GRAPES

2001 Season

Assumptions:

Yield 8 tonnes per ha

Grown under contract.

2000 vines per ha

Income:

Premium grapes	8 tonnes @ \$1,650 per tonne	\$13,200.00
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Expenditure:

Pruning	2000 vines @ 70 cents per vine	\$1,400.00	
Chemicals and application		\$1,210.00	
Training (includes desuckering and shoot thinning		\$2,080.00	
Trimming		\$300.00	
Harvesting	8 tonnes @ \$60 per tonne	\$480.00	
Leaf plucking	2000 vines @ 20 cents per vine	\$400.00	
			\$5,870.00

GROSS MARGIN (per ha)	\$7,330.00
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Gross Margin per ha at 10%
variation in yield and price

		Yield tonnes per ha		
		7.2	8	8.8
Price	\$1,485	\$4,870	\$6,010	\$7,150
per	\$1,650	\$6,058	\$7,330	\$8,602
tonne	\$1,815	\$7,246	\$8,650	\$10,054

Source: Horticulture Monitoring Report – July 2001

BULK WINE GRAPES

2001 Season

Assumptions:

Yield 16 tonnes per ha

Grown under contract

2000 vines per ha

Income:

Premium grapes	16 tonnes @ \$700 per tonne	\$11,200.00
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Expenditure:

Pruning	2000 vines @ 70 cents per vine	\$1,400.00
Chemicals and application		\$1,210.00
Training (includes desuckering)		\$1,680.00
Trimming		\$300.00
Harvesting	16 tonnes @ \$60 per tonne	\$960.00
Leaf plucking (machine)		\$250.00
		\$5,800.00

GROSS MARGIN (per ha)	\$5,400.00
-----------------------	------------

Gross Margin per ha at 10%
variation in yield and price

		Yield tonnes per ha		
		14.4	16	17.6
Price	\$630	\$3,368	\$4,280	\$5,192
per	\$700	\$4,376	\$5,400	\$6,424
tonne	\$770	\$5,384	\$6,520	\$7,656

Source: Horticulture Monitoring Report – July 2001

3.6 FLOWER GROSS MARGINS

3.6.1 Export Calla Lilies (*Zantedeschia*)

CALLA LILY GROSS MARGIN (2000/2001)

Note: Information has been obtained from several sources - and should be used as a guide only.
10,000 Mixed size tuber, selling flowers and exporting tubers

Tuber Stock: (average value)

Mixed Sized tubers	10000 @ \$ 1.75	\$17,500
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Production Parameters:

	Tuber Diameter	
Planting Specification	2 to 3 cm	60 to 80 per m2
	4 to 5 cm	30 per m2
	8 cm	15 per m2

Rows 1m wide and 0.6m apart.

Tubers multiply and increase in size. The assumption is that the tuber numbers increase by 50% allowing for losses.

Note: Tuber stock numbers are kept static at approximately 10,000, but stock quality may decline unless some replacements are grown from tissue culture.

Flowering:

	Tuber Diameter		
2000	1 to 3cm	0	flowers
2000	3 to 4cm	0.75	flowers per tuber
2000	4 to 5cm	1.00	flowers per tuber
2000	5 to 6cm	1.75	flowers per tuber
2000	8 to 10cm	3.00	flowers per tuber

Assumption is therefore a mean flower production of 1.3 flowers per tuber (of which 75% are saleable).

Flower grading and packing and tuber washing, curing and storing is on contract.
Cultivation, planting and lifting machinery is hired. Casual labour is hired for lifting and grading.

Prices for numerous grades of flowers and tubers have been averaged in this gross margin.
Tuber price is net of commissions and levies.

Income: (average prices)

Flower Stems	9750 @ \$1.00	\$9,750.00
Tuber export	5000 @ \$1.40	\$7,000.00 \$16,750.00

Expenditure:

Flowers -

Picking, Grading and Packing	@	\$ 0.30 / stem	\$2,925.00	
Commission	@	12.50%	\$1,340.63	
Levy	@	2%	\$214.50	\$4,480.13

Tubers -

Cultivation and planting				
- casual labour	20 hrs	@	\$10.50	\$210.00
- machinery hire	6 hrs	@	\$45.00	\$270.00
Replacement tuber stock			\$1,000.00	
Lifting and Grading				
- labour	250 hrs	@	\$10.50	\$2,625.00
Lifting				
- machinery hire	5 hrs	@	\$55.00	\$275.00
Washing, Curing and Storing 70 trays (1250mm x 900mm)				
(contract)	70	@	\$20.00	\$1,400.00
Fertilizer				\$5,780.00
Weed Control				\$150.00
Pest and Disease				\$250.00
				\$550.00

TOTAL DIRECT COSTS \$11,210.13

TOTAL GROSS MARGIN per 10,000 Tubers (before interest) \$6,514.88

Gross Margin per 10,000 mixed sized tubers at varying flower/tuber production and prices

NUMBER OF FLOWERS/TUBERS SOLD				
		8775	9750	10725
		4500	5000	5500
PRICE OF FLOWERS/ TUBERS	\$0.50 /	(\$2,461.19)	(\$1,986.88)	(\$1,512.56)
	\$0.70			
	\$1.00 /	\$4,440.13	\$5,681.25	\$6,922.38
	\$1.40			
	\$1.50 /	\$11,341.44	\$13,349.38	\$15,357.31
	\$2.10			

Interest Costs

Interest on Capital invested in Tubers

\$17,000 @ 5.5% \$935.00

RETURN per 10,000 tubers after interest \$5,579.88

3.6.2 Flower Gross Margin Trends

Crop	2000/01	1999/00	1998/99	1997/98
\$ per square metre				
Calla	-	-	\$20.10	\$17.75
Callas – cut flowers (greenhouse)	\$25.04	\$32.04	\$22.02	-
Callas – cut flowers (field)	\$12.62	\$16.33	\$11.32	-
Callas – T1 tubers (greenhouse)	\$10.09	\$10.09	\$10.09	-
Orchids	-	-	\$12.00	\$12.00
Orchids (cymbidium) (greenhouse)	\$35.18	\$30.32	\$28.14	-
Carnations	-	-	\$12.90	\$9.30
Gypsophila	-	-	\$25.10	\$22.70
Peony Rose (field)	\$9.14	\$6.31	\$5.00	-
Roses	-	-	\$121.10	\$101.85
Roses (greenhouse)	\$30.69	\$30.69	\$37.65	-
Sandersonia – cut flowers (greenhouse)	\$40.78	\$53.27	\$31.83	-
Sandersonia – tubers (shadehouse)	\$31.12	\$36.76	\$31.12	-

Source: Horticulture Monitoring Report - July 2001; MAF Farm Monitoring Report - North Region, July 1999.

SECTION 4

TAXATION

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With information from the following websites:

<http://www.ird.govt.nz>

<http://www.acc.co.nz>

NOTE:

This manual details both the current (January 2002) legislation and the proposed changes where applicable.

While every attempt is made to ensure these writings are accurate, we must caution readers not to rely solely on the Financial Budget Manual without further reference, including professional advice where appropriate.

4.1 INTRODUCTION

4.1.1 Tax Legislation

This section of the manual sets out some of the more important requirements for Income Tax, Fringe Benefit Tax and Goods and Services Tax. Information regarding Gift Duty is set out in *Section 5*.

The law relating to tax in New Zealand includes the Income Tax Act 1994, the Tax Administration Act 1994 and the Goods and Services Tax Act 1985. The Income Tax Act also sets out the requirements for some other taxes, including Fringe Benefit Tax. Only selected aspects of the taxation law have been included in this section, and caution must be exercised when applying those guidelines to a particular circumstance. If in doubt, your accountant, or financial adviser should be consulted.

4.1.2 Recent Changes to Tax Law

In recent years there have been significant changes to the legislation in order to:

- broaden the income and consumption tax bases;
- reduce the scope for avoidance and evasion;
- lower the rates of tax;
- make the system fairer;
- simplify the tax system;
- make it more certain.

As part of this process, both the Income Tax Act 1976 and the Inland Revenue Department Act 1974 were repealed and replaced with the Income Tax Act 1994, the Tax Administration Act 1994, and the Taxation Review Authorities Act 1994.

In essence, provisions relating to the calculation of tax liabilities are contained in the Income Tax Act 1994, administrative provisions have been consolidated into the Tax Administration Act 1994, while legislation relating to the Taxation Review Authority have been transferred to a separate Act.

The legislation changes were essentially a reorganisation and consolidation of existing law into a more logical order (including a change in the method of numbering sections of the Act), which also allowed some wording to be modernised. There has been no intention to change existing income tax law or current interpretation of that law.

In addition, the tax legislation is being rewritten in plain English in order to make it more readable. The first phase of this rewrite has been enacted and deals with the core provisions that form the basis of the tax legislation.

One aspect that changed was the introduction of a binding rulings regime. Under this regime, the Commissioner of Inland Revenue is able to issue rulings regarding the interpretation of tax law that will bind the Inland Revenue Department (IRD) in future decisions. For example, the IRD could issue a ruling regarding the tax implication of a

proposed business transaction. Rulings can be classified as public rulings, product rulings, and private rulings. Product and private rulings are charged for on a full cost recovery basis. Rulings are valid for the period specified in the ruling but may be subsequently withdrawn. Rulings may also be terminated if there is a change in relevant law.

Simplification of the tax system, reducing compliance costs and clarification of problem areas of tax law and practice have been key features of IRD's tax policy work program for the past five years. Changes made during 1997 included amendments to the depreciation regime, the repeal of the Superannuitant Surcharge, new provisional tax rules, and amendments to the taxpayer compliance, penalty and interest regimes. Changes to the ACC levies were also announced.

1998 saw the continuation of the process of simplification of the tax system with the passing of the *Taxation (Simplification and Other Remedial Matters) Act 1998*. The major reform resulting from this Act was the removal of the need for IR5 taxpayers to file returns of income as from 1 April 1999. The IR5 was replaced with a system of pre-printed income statements generated from information provided by employers through the PAYE system.

Individuals are able to request an income statement if they wish. Income statements show any tax owing or refund due i.e. it replaces the general assessment produced after the filing of the IR5. Earnings Certificates can also be requested which will detail an individual's wage and salary income and PAYE deductions, but unlike income statements will not show any tax calculations.

The changes also affect employers who have to file monthly schedules containing individual employee's salary and wages together with PAYE deductions and other information. This system replaced the former year-end reconciliation of PAYE.

This Act also contained changes to Resident Withholding Tax system and a range of other minor changes.

With respect to farming, the scope of changes to the tax legislation between 1998-2002 were minimal. Many of these related to the application of the legislation to the current year e.g. livestock tax values, as opposed to structural changes.

4.2 THE INCOME TAX SYSTEM

4.2.1 Overview

The New Zealand income tax system is primarily a self-assessment system where the onus or responsibility rests on the taxpayer to correctly calculate taxable income and his or her tax liability on that taxable income and to pay income tax due within set time limits.

The role of the Inland Revenue Department (IRD) is mainly regulatory in that the IRD is required to ensure that taxpayers have correctly determined their tax liability within existing tax law and that income tax due has been paid on time. The IRD has the power to administer the penalty regime against taxpayers who do not correctly comply with their obligations.

The 1994 Act introduced the Core Provisions, which state and define the key principles of income tax law and taxpayer obligations. The taxpayer obligations stated in the core provisions are;

- correctly determine their amount of tax payable;
- deduct or withhold the correct amount of tax from payments or receipts
- pay tax on time;
- keep all necessary information and maintain all necessary accounts or balances;
- disclose all information that the Commissioner requires in a timely and useful way;
- co-operate with the Commissioner, and
- to comply with other specific tax obligations.

Income tax is collected throughout the year by either the PAYE (Pay As You Earn), RWT (Resident Withholding Tax), withholding tax, or provisional tax systems. After the income year has concluded, each taxpayer should complete the appropriate annual Return of Income, which calculates actual tax payable and allows tax already collected to be credited against calculated tax liability and file it with the Inland Revenue Department, if required to do so. (See *Section 4.2.5 Returns of Income.*) An assessment is then issued to the taxpayer.

A taxpayer can dispute his or her income tax assessment. Under the disputes procedures, the taxpayer and the IRD must, in writing, state their various positions with respect to the items under dispute. There are several stages in this process which may involve a conference between the parties and adjudication. Recourse to the Taxation Review Authority and/or the Court is available in the final stages of the dispute.

Because of the complexity and rigid time restrictions of the dispute procedures, it is important that disputes are promptly dealt with and suitable professional advice is obtained by the taxpayer.

4.2.2 PAYE (Pay As You Earn) Tax on Personal Income

Under the PAYE system, source deductions of tax are made by employers, i.e. tax is deducted prior to payment or crediting of salary and wages to employees. Employees (and contractors in some cases) are required to complete an employee tax code declaration form IR330 which is used by the employer to help establish how much tax should be deducted.

The employee to complete a declaration form when they start with a new employer or change tax codes. The tax deducted is periodically paid to the Inland Revenue Department.

The PAYE system applies to salaries, wages, and withholding payments. Salary or wages are defined as any salary, wages or allowances received by way of overtime pay, bonus, gratuity, extra salary, commission or remuneration of any kind in respect of or in relation to the employment of the person.

The amount of tax deducted depends on the amount of payment and the tax code shown on the employee declaration. Tax tables to calculate the amounts to be deducted are published by the Inland Revenue Department (IR 184X). The obligations of an employer are detailed in the booklet IR335 Employers Guide.

The tax codes for salaries, wages and secondary earnings are as follows:

Code	Description
No declaration	For employees who have not given their employer a tax code declaration or their tax code certificate. (Tax rate 45%)
M	Earnings are the main source of income
M SL	Earnings are the main source of income with a student loan. (Only one job can have this code.)
S	Earnings are secondary sources of income and annual taxable income is no more than \$38,000 (Tax rate 21%).
SH	Earnings are secondary sources of income and annual taxable income is over \$38,000 but no more than \$60,000. (Tax rate 33%)
ST	Earnings are secondary sources of income and annual taxable income is over \$60,000. (Tax rate 39%)
S SL	Earnings are secondary sources of income and taxable income is less than \$38,000 with a student loan.
SH SL	Earnings are secondary sources of income and taxable income is more than \$38,000 but less than \$60,000 with a student loan.
ST SL	Earnings are secondary sources of income and annual income is over \$60,000 with a student loan.
ML	Earnings are the main source of income where annual taxable income is less than \$9,880 (ie., entitled to the transitional tax allowance).
CAE	Casual agricultural employee. (Tax rate 21%)

Withholding payments are payments for personal services which are casual in nature or where there is not an employer-employee relationship. Common types of payment and the appropriate tax rates are specified in the IR330 form and include:

	%
Company directors' fees	33
Droving work	15
Shearing work	15
Agricultural, maintenance, development or other allied work on farm or land (including non-building improvements)	15

Planting, sowing or harvesting of vegetable crops	15
Agricultural work involving firewood cutting, post splitting etc, grass or seed cutting, hedge cutting, planting trees, planting or cutting flax, threshing, chaff cutting, hay making, etc, or gathering crops	15
Forestry or bush work	15

A non-employee performing any of the above services needs to complete an IR330 withholding payment deduction certificate and give it to the person paying him or her.

Failure to provide an employee declaration form increases the rate of withholding tax to be deducted by 15 cents for every \$1. The amount on which withholding tax is calculated should not include any GST charged by the contractor.

This tax mainly applies to payments by businesses to self-employed contractors. Withholding tax does not apply for payments to Companies.

Payment of PAYE and Withholding Tax

Employers must pay the total PAYE and withholding tax to the Inland Revenue Department and provide employer monthly schedules to IRD. The employer monthly schedule will contain various information including name and IRD number, tax code, child support, specified superannuation contribution (SSC), SSC withholding tax (SSCWT) and student loan deductions of each employee. Due dates depend upon the type of employer.

‘Small’ employers are those whose PAYE and SSCWT deductions did not exceed \$100,000 in the preceding year and they make one payment by the 20th of the month following the month when the deductions were made.

‘Large’ employers are those whose PAYE and SSCWT deductions exceed \$100,000 in the preceding year and they must make two payments each month. Payments are due on the 20th of the month (for tax deducted from payments made from the 1st to the 15th of the month); or the 5th of the following month (for tax deducted from payments made on or after the 16th of the month). However ‘Large’ employers do not have to provide the employer monthly schedule with each payment. On the 20th of the month a remittance certificate showing only the total amounts of tax deductions, and other deductions made in the first period. This will be able to be filed electronically. On the 5th of the following month the full employer monthly schedule is required together with payment. Large employers are required to provide schedules electronically. Electronic filing is optional for small employers.

Employers must keep proper records for each employee showing gross wages, tax deductions, and tax credits (if any). Tax credits relate to the family support tax credit scheme and the guaranteed minimum family income tax credit scheme. All records relating to employee wages must be kept for seven years.

4.2.3 Resident Withholding Tax

Resident withholding tax (known as interest/dividend PAYE) is deducted from interest/dividend income earned by taxpayers. RWT is deducted and withheld at source by the institutions or companies that pay interest or dividends to their clients or shareholders.

The RWT rate is 33% for dividends and 19.5% for interest. Where the recipient does not provide their IRD number to the payer of the interest, the rate of deduction is increased to 39%. RWT on dividends is also reduced to the extent that imputation credits are attached.

No tax is required to be deducted from payments to organisations holding a Certificate of Exemption. These certificates are issued by the Inland Revenue Department to financial institutions, companies with sales greater than \$2 million p.a. and organisations whose income is exempt from tax.

Interest will not attract RWT liability if:

- the interest is not paid wholly or partly in the course of carrying on a taxable activity
- the payer does not hold a valid certificate of exemption
- the payer's interest is below the \$5000 exemption threshold.

RWT does not have to be deducted on private borrowings unless those borrowings are used in a taxable activity eg. Farming.

Institutions which deduct resident withholding tax from interest/dividends are required to provide taxpayers with RWT certificates by 20th May each year. The certificates show RWT credits and allow a credit for the tax withheld to be claimed in the annual tax returns.

4.2.4 Provisional Tax System

Provisional tax is levied on all income which does not have tax deducted at source, such as PAYE or RWT. It is meant to ensure that all income will be taxed in the year in which it is earned. Provisional taxpayers include:

- Individuals who derive business or professional income, e.g. farmers.
- Companies.
- Trusts.

Taxpayers who have residual income tax (total tax less source deductions) of more than \$2,500 are required to pay provisional tax.

Provisional tax is based on either an estimate of the current year's income or a figure calculated from a previous year's tax liability. The rules are intended to ensure that approximately the correct amount of tax is paid in the year in which income is earned. The difference between provisional tax paid and the actual tax, on the income earned, is adjusted in the next year.

Provisional taxpayers pay provisional tax:

- in three instalments if their residual income tax (RIT) was greater than \$2,500 in the previous income year. Instalments are due on the seventh day of the 4th, 8th and 12th month of the taxpayer's income year. (July, November and March where balance date is 31 March; October, February and June where balance date is 30 June.)
- in either one, two, or three instalments if they are new provisional taxpayers.

End of year tax to pay, called terminal tax, is calculated in the annual tax return. For provisional taxpayers whose balance dates are March to September inclusive, terminal tax is due on 7 February following balance date. (Due dates are specified in *Section 4.15.1*). Where provisional or terminal tax is not paid by the date it is due, it will be charged with

“use of money interest”. Use of money interest applies to any underpayment or overpayment of provisional tax in addition to any late payment penalty which may apply. With effect from the 1998/99 income year, use of money interest will generally run from the first instalment due date, except in the case of safe harbour taxpayers.

Safe harbour taxpayers are individuals (other than a trustee) who;

- use the standard option for determining their Residual Income Tax (RIT) for the current year (i.e. 105% of last year’s RIT or 110% of the RIT for the year before last)
- have current year RIT under \$30,000. (proposed to increase to \$35,000 in 2002 amendments)

Provisional Tax is Calculated as Follows:

- Based on previous year's tax

For the 2001/2002 income year, the methods of determining provisional tax payable will be:

105% of 2000/01 RIT

- For taxpayers with 1999/2000 taxable income over \$60,000 and who have not furnished their 2000/01 tax return due to an extension of time arrangement, 110% if 1999/2000 RIT calculated using the higher tax rates (this does not apply to third instalment payments);
- For taxpayers with 1999/2000 taxable income under \$60,000 and who have not yet furnished their 2000/01 tax return due to an extension of the time arrangement 110% of 1999/2000 RIT (this does not apply to third instalment payments);
- An estimate of RIT on or before the due date for an instalment ; or
- In accordance with a determination issued by the Commissioner under section 119 of the Tax Administration Act 1994

Residual income tax is based on:

- a notice of assessment if one has been issued
- a taxpayers return of income if one has been issued
- the Commissioners assessment if a return has not been filed or an extension of time has been granted
- the amount of RIT for the immediately preceding income year. If the taxpayer was not required to file a return of income for that year (because RIT for that preceding year was less than \$2,500)

From the 1998/99 income year, taxpayers may elect to become provisional taxpayers, so long as they have an RIT of at least \$2,500.

Taxpayers have the right to estimate their liability at any time on or before the third instalment date during an income year. All estimates must be ‘fair and reasonable’. For example, it is not ‘fair and reasonable’ to make ‘nil’ returns for the first two provisional payments, and pay the full amount as the third payment in order to bring the total provisional tax up to the required level for the year. It is proposed to remove the reasonable core

standard for estimations of provisional tax for those taxpayers with RIT under the safe-harbour threshold.

The under-estimation penalty was repealed with effect from the 1998/99 income year.

Generally provisional tax is treated as being due and payable in three equal instalments. Use of money interest applies to any underpayment or overpayment of provisional tax in addition to any late payment penalty which may apply. Use of money interest runs from the first instalment date except in the case of safe harbour taxpayers.

Use of money interest may be cancelled where a notice of assessment is issued stipulating a new due date for payment of the unpaid tax. If the assessment is issued before the original due date, a 30 day grace period is allowed which allows a taxpayer to pay the amount stated on the assessment without being charged interest.

Provisional Tax Example

Mr J. Smith is a farmer, with a personal income from his farm and from casual work for a local contractor. He uses the standard option of 105% of 2000/01 RIT and pays 2002 provisional tax of \$10,000. His total income is \$53,875. Total tax due in his 31 March 2000 tax return (in whole dollars) is:

Tax on total income	\$12,649
Less rebates (say)	<u>50</u>
Tax payable	\$12599
Less PAYE deductions	<u>1,000</u>
RESIDUAL INCOME TAX	\$11,599
Less provisional tax already paid	<u>10,000</u>
TERMINAL TAX	<u>\$1,599</u>

His terminal tax payment will be due on 7 February 2003. Because his residual income tax is less than \$30,000 and he did not estimate his provisional tax, he is not subject to interest on the terminal tax due.

The above details assume Mr Smith pays his provisional tax on the basis of the previous year's tax. If, however, the provisional tax paid (\$10,000 in the example) was based on an estimate, he would be required to pay various additional amounts. Using the estimate basis would also mean that interest would be due on his terminal tax. Interest would be calculated on a daily basis from 7 March 2002 to 7 February 2003 (337 days).

For the 2003 year, his provisional tax will be 105% of the residual income tax, (i.e. \$12,178). The provisional tax payments for 2003 are due as follows:

7 July 2002 (one third)	\$4,059
7 November 2002 (one third)	\$4,059
7 March 2003 (one third)	\$4,059

Provisional Tax 2001/02

Key features are summarised as follows:

	Safe harbour Current rules	Non-safe harbour Taxpayers
Classification	All natural person provisional taxpayers except: <ul style="list-style-type: none">• those with RIT greater than \$30,000• those who opt out• trustees• those with certificates of exemption	All provisional taxpayers other than those safe harbour.
Interest Starting date:	Terminal tax date for those safe-harbour	The interest applies from first instalment date in all cases
Estimation:	Not required. A taxpayer who estimates leaves the safe harbour	Estimates not required
Instalment amount:	Formula (based on 105% of last year's RIT)	Formula or estimate. A requirement that taxpayers take reasonable care if they estimate.
Late payment penalty:	Yes	Yes, if taxpayer pays less than estimated or required by formula.
Interest on overpayments:	No (but taxpayers may opt out of the safe harbour by estimating, in which case interest starts at the first instalment date)	Yes (if more than \$100)
Interest on underpayments:	No, unless taxpayer opts out of safe harbour	Yes (if more than \$100)

4.2.5 Returns of Income

In general, every taxpayer must furnish a return of income each year setting out details of the assessable income derived during the year, plus supporting information, including accounts, etc. Annual returns relate to an income year ending 31 March unless an alternative balance date has been approved by the Inland Revenue Department.

While IR3 returns will still have to be filed by relevant taxpayers, those taxpayers who have tax deducted from all their income at source, for example PAYE, RWT, receive an income statement which replaces the IR5. The result is the elimination of a yearly tax return for many taxpayers. Income statements will be sent mainly to people who have a student loan, or receive family assistance or are entitled to receive it. Income statements will also be sent to taxpayers who have had the PAYE rules applied incorrectly or had their tax underdeducted as a result of using inappropriate tax codes.

Taxpayers who earn income that does not have tax deducted at source, such as business or rental income, will be required to complete an individual income tax return. Those who earn

wage, salary, interest and dividend income but have something out of the ordinary, such as a loss, will also be required to file a tax return.

The following return forms should be used:

- IR3 For individuals who pay provisional tax. Includes self-employed taxpayers, salary and wage earners and superannuitants who derive investment income with a residual income tax liability in excess of \$2,500, and taxpayers whose income was derived from estates, trusts or partnerships.
- IR3B Supplementary return of business income.
- IR3F Supplementary return of farming income.
- IR4 Company and club returns.
- IR6 Estate or Trust return.
- IR7 Partnership return.

Due Dates for Annual Returns

Annual returns for IR5 taxpayers are due 7 June each year. Annual returns for all other taxpayers are due as follows:

- Balance dates between 1 October and the following 7 May (inclusive) - return is due 7 July.
- Balance dates between 8 May and the following 30 September (inclusive) - return is due two months after balance date.

There are penalties for filing returns after the due date. Refer to *Section 4.2.7*.

Special rules apply to returns completed by accountants and other specialists. These allow a proportion of returns to be completed by later dates.

4.2.6 Assessment of Tax

The return of income requires the taxpayer to calculate his or her actual tax liability and then credit the PAYE, withholding, or provisional tax, which was paid during the income year. The Inland Revenue Department will issue an assessment notice to the taxpayer which will either accept or amend the return as filed. Possible outcomes are:

- A refund of tax overpaid (or a credit that can be offset against other tax due).
- More tax to pay (terminal tax). For individuals who are not provisional taxpayers, the due date for terminal tax is the 7th day of the following February. For provisional taxpayers, due dates are specified in *Section 4.15.1*.
- No adjustment required.
- Confirmation of a tax loss which can be carried forward to be offset against future income.

The Inland Revenue Department has the right to issue an amended assessment if it believes a previous assessment was not correct. The IRD has the right to do this until four years after the end of the income year (31 March) in which an assessment was made. Where a tax return was fraudulent or willfully misleading or where it omitted income, then the Inland Revenue Department can issue an amended assessment without any time limit.

The taxpayer has the right to dispute their tax assessment. Commentary on the disputes procedures appears in *Section 4.2.1, Overview of the Tax System*. It is advisable to seek professional advice if a tax assessment is under dispute as the procedures are complex and subject to strict time restrictions.

There is an obligation to pay non-deferrable tax in dispute before requesting a case stated or commencing a challenge of 50% of the tax in dispute. If the taxpayer is successful in the dispute, the IRD will pay interest on the tax which the taxpayer paid before litigation. Alternatively, if the IRD is successful the taxpayer will be liable for interest on the unpaid portion of tax which is outstanding from the original due date.

4.2.7 Penalties

Interest

“Use of money” interest is not a penalty as such, although it is appropriate to outline the provisions here.

The principle behind the two-way interest regime is that tax payments are due on prescribed dates, and taxpayers have an obligation to pay on the applicable date. Interest will provide an incentive to pay the right amount of tax at the right time by removing any benefit which can be achieved by deferring tax payments.

The two-way interest regime applies to both the taxpayer and the IRD, although the interest rates differ. Interest on underpayment of tax will be charged to the taxpayer at 12.62% p.a., while interest on overpayment will be paid to the taxpayer by the IRD at 5.245% p.a. (**Note:** These rates of interest are determined by the IRD and are subject to change. Taxpayers should consult their tax adviser or the IRD for the current rates.) Generally, interest will be charged from the day after the original due date until the tax is paid. Interest received (by the taxpayer) will be assessable and subject to withholding tax; interest paid will be deductible provided it is “business related”.

Penalties

The penalties regime applies in most instances from the commencement of the 1998 income year. It places greater emphasis on taxpayers meeting their obligations at the standard expected of a reasonable person. The penalty regime supports self-assessment concepts by encouraging voluntary compliance with the law.

Some, but not all, penalties may be remitted by the Commissioner. Where remitted, the debt (penalty) is legally forgiven.

There are two classes of penalty under the regime. The key features of each class are outlined below.

Civil Penalties

Civil penalties apply in the following circumstances:

- Late filing of returns. (Penalties range from \$50 to \$500, depending on the amount of net income.)
- Late payment of tax (5% plus 1% per month until paid). Before April 2001, the incremental penalty was 2% per month.
- Shortfall penalties where tax is underpaid because of;
 - a lack of reasonable care (20% of deficient tax)
 - an unacceptable interpretation or application of tax law (20% of deficient tax)
 - gross carelessness (40% of the deficient tax)
 - an abusive tax position (100% of the deficient tax)
 - tax evasion (150% of the deficient tax)

The penalties may be abated for voluntary disclosure, or increased if the taxpayer obstructs the IRD. Threshold amounts apply to ensure that trivial amounts do not attract such penalties.

Civil penalties are not tax-deductible.

Criminal Penalties

Penalties relate to the offence and can vary from fines of up to \$4,000 for first offences (eg.: for failing to provide information when required to do so), to fines of up to \$50,000 and/or imprisonment for up to five years for tax evasion.

Details of the penalties regime are contained in Tax Information Bulletin, Vol 8, No. 7, October 1996.

4.3 CALCULATING TAXABLE INCOME – OVERVIEW

4.3.1 Core provisions

The core provisions of the Income Tax Act 1994 set out the basis of income tax law in New Zealand. Core provisions, broadly, are those sections of the legislation which define the tax base by bringing certain income to tax, exempting various types of income, prescribing the rules for deductions, and defining when a person is resident in New Zealand. These provisions adopt a “global” approach to the calculation of an income tax liability, and have been written in plain language.

The core provisions state in writing and in diagrammatic form the method of calculating and satisfying the annual income tax liability. The annual gross income is reduced by the allowable tax deductions in order to determine the net income or net loss of the taxpayer. Taxable income is calculated by deducting net losses carried forward (if any) from net income. Tax at the applicable rates is calculated on the amount of taxable income, and is then adjusted for rebates.

Available tax credits (e.g.: PAYE RWT, overseas tax paid and/or provisional tax already paid by the taxpayer) are then credited against this net tax liability in order to establish if the taxpayer has underpaid or overpaid their tax for the year. Underpaid tax results in more tax to pay (terminal tax) while overpaid tax generally results in a refund to the taxpayer.

4.4 CALCULATION OF TAXABLE INCOME - INDIVIDUALS

4.4.1 Overview

Individuals have to file IR3 or IR5 tax returns (depending on their sources of income - see *Section 4.2.5, Returns of Income*). While IR3 returns will still have to be filed by relevant taxpayers those IR5 taxpayers who have tax deducted from all their income at source e.g. PAYE, RWT etc may receive an income statement which replaces the IR5.

Individuals are required to pay tax at the rates specified by the Income Tax Act. These rates vary according to the level of income on the basis that the higher the income, the higher the marginal rate of tax. The rates of tax are set out in *Section 4.15.2 Rates of Income Tax*.

Taxable income is the net amount after deducting exempt income and allowable deductions from income received by the taxpayer.

The actual tax liability for the year is the amount of tax (calculated on taxable income) less the applicable rebates and adjustments (if any). These are calculated in the taxpayer's income statement.

It is usual to find that some taxpayers must make a final adjustment to settle their tax liability. The amount of adjustment is calculated by deducting the tax paid during the year (e.g. PAYE or provisional tax) and any other tax credits from their actual tax liability. A negative amount represents an overpayment of tax, which will be refunded to the taxpayer. A positive amount represents an underpayment of tax, which must be subsequently paid to the Tax Department as terminal tax.

4.4.2 Assessable Income

This includes, among other sources:

1. Business income (includes farm income).
2. Monetary remuneration from employment, such as salary and wages, allowances (other than reimbursing allowances), bonuses, gratuities, emoluments (including redundancy payments made on or after 30 November 1992), or other monetary benefits.

Salary and wages includes:

- Value of board, lodging and house allowances received.
 - Payments on account of an employee.
 - Pensions and superannuation from past employment.
 - National superannuation.
 - Earnings related Accident Compensation receipts.
 - 'Basic Grant' paid to students.
3. Personal property sales e.g. company shares if it is the business of the taxpayer to deal in such property, or if the property was acquired for the purpose or intention of selling or otherwise disposing of it.

4. Revenues from land e.g. net rents received; profits from extraction, removal or sale of minerals, timber, etc.
5. Gains from the sale of land in some circumstances.
There are complex rules regarding the taxation of gains from the sale of land (including improvements e.g. buildings). The following list provides a simplified summary:

Gains are taxable where:

- A. The land was bought with an intention of selling it unless it was used for 'substantial business' by the taxpayer, or for his or her residence.
- B. Where the taxpayer or an associated person is in the business of dealing in land, is a property developer, or is a builder. If the land was acquired for the purpose of the dealing, developing, or building business, gains on sale are assessable without time limit. However if the land was not acquired for the purposes of the business, these sections do not apply if the land has been held for more than ten years. An exemption applies if the land was used for 'substantial business' by the taxpayer, or as his or her residence.
- C. Where gains are partly due to a change in land use (requiring resource consent), including expected land use changes. However, there are exemptions if the land was used by the taxpayer for a farming or agricultural business and sold to be used as a farming or agricultural business; or if it was used as the taxpayer's residence and sold to be used as a residence. Gains are also not taxable if the land was held for more than ten years, and this allowance applies proportionately if the land was held for less than ten years (e.g. held for three years, 30% of gain is not taxable).
- D. Where an undertaking or scheme, for the land to be developed or subdivided, was commenced within ten years of the land being acquired. However, this section does not apply where the development was for the purposes of a business conducted from the land, or for the residence of the taxpayer, or for income from rents. It also does not apply if the land was less than 4,500m² and was occupied as the taxpayer's residence; and it does not apply where the taxpayer used the land primarily for farming or agriculture, and the subdivided land is capable of being worked as an economic unit, as a farming, or agricultural business.
- E. The development profit is taxable where there was significant expenditure in developing land for industrial, commercial or residential purposes. This section does not apply if the land was less than 4500m² and was occupied as the taxpayers residence; or where the taxpayer used the land primarily for farming or agriculture and it is capable of being worked as an economic unit for farming or agricultural business.

6. Royalties and 'know how' payments.
7. Interests, dividends, annuities and pensions.
8. All income-tested benefits paid by the Department of Social Welfare .
9. Travelling allowances received by an employee will be taxable except those amounts which represent a reimbursement of additional transport costs incurred by the employee in travelling between home and his or her place of work.

4.4.3 Exempt Income

The following items, amongst others, are exempt from income tax:

- Prize money from horse or dog racing, or trotting.
- Prizes from Lotto, Instant Kiwi and Bonus Bonds.
- Monies received by way of gifts, legacies, and capital gains.
- Any educational scholarship or bursary (but not the 'basic grant' which is paid by the New Zealand Government).

4.4.4 Deductions for Employees

Recipients of salary, wages and/or national superannuation, and casual agricultural employees, are not permitted to deduct employment related expenses.

However, there is one remaining category of deduction that still applies to most people. Expenses incurred in the calculation of a person's liability for tax may be claimed as a deduction. This includes fees paid for preparation of accounts and tax returns, and purchase of reference materials to assist the taxpayer in calculating his or her tax.

4.4.5 Personal Tax Rebates

Rebates are offset against the tax liability calculated. However, the total rebates claimed cannot exceed the assessed amount of tax payable, so the rebates cannot be claimed as a refund if they are more than the tax which was due.

In the past rebates were claimed by salary and wage earners when completing an annual tax return. Since 1 April 1999, individual taxpayers claim rebates using a rebate claim form. All rebate claim forms for an income year must be filed by 30 September of the following income year. The rebate claim form will be used by all individuals who are eligible to claim rebates, including those who will still be required to file a annual tax return.

When Inland Revenue has processed a rebate claim form a rebate claim notice will be issued to inform the taxpayer of the rebates allowed and the amount of the refund payable.

The principal rebates available to individuals for the current income year are:

Personal Tax Rebate for Child Taxpayer

Maximum \$156 per year or 15% of net income whichever is the less.

This rebate applies to a child taxpayer who during the income year was under 15 years old or was under the age of 19 years and attended a primary, secondary, or special school, in that tax year.

Transitional Tax Allowance

This allowance is available to a full-time earner (20 hours remunerative work per week) without dependent children and introduced to compensate for the phase-out of the principal income earner rebate.

<u>Assessable Income</u>	<u>Rebate</u>
Up to \$ 6,240	\$728
\$6,241 to \$9,880	\$728 less 20% of excess over \$6,240
Over \$9,880	Nil

This rebate is not allowed if the taxpayer or spouse is entitled to the Family Support tax credit or the Guaranteed Minimum Family Income tax credit.

The rebate is reduced if the taxpayer was not a full-time earner for the whole year. The definition of full-time earner includes people engaged in remunerative work for not less than 20 hours each week.

Low Income Rebate

A rebate of tax is available to all "low income" earners. It applies to natural persons so that the effective tax rate on income up to \$9,500 pa is 15%. Beyond this amount, the rebate reduces so that it reaches zero when taxable income reaches \$38,000. The following table details the low income rebate:

Income	Rebate	Effective tax rate
\$0 to \$9,500	- 4.5 cents	15 cents
\$9,501 to \$38,000	1.5 cents	21 cents
Over \$38,000	Nil	33 cents

Housekeeper/Child Care Rebate

The lesser of \$310 or 33% of payments made.

This rebate is allowable for a housekeeper, or for childcare (at home, at a childcare centre, or any other institution). It is available, provided the child care services are necessary because the taxpayer is a sole parent, or is disabled, or the care is necessary for business or employment, or when a housekeeper is required because of the taxpayer's disability.

Donations

The lesser of \$500 or 33 $\frac{1}{3}$ % of payments made.

Donations must be for a minimum of \$5 and made to approved charities. Receipts must be furnished in support of the rebate claimed.

Visitors from Overseas

Overseas visitors who work for part of the income year in New Zealand are allowed a proportion (based on time worked here) of the following rebates:

- Child taxpayers
- Housekeeper
- Transitional Tax Allowance
- Low Income

4.4.6 Family Assistance

Family tax credits are intended to give income support to low and middle income earners with families. They are paid to the taxpayer as a benefit paid by the Social Welfare Department, but the final end-of-year adjustments are made through the taxpayer's income statement. For example if the tax credits are more than enough to offset the tax due, then the remainder is paid out to the taxpayer.

Income for tax credit calculations is calculated using special rules. Family income is combined for the purpose of the calculation. Some tax exemptions and business losses are ignored, and profits made by a family company must be included.

There are two tax credits available to taxpayers:

1. the "Part KD credits" comprising
 - family support credit; plus
 - child credit; plus
 - parental tax credit; less
 - family credit abatement
2. the family tax credit (previously known as the GMFI (Guaranteed Minimum Family Income) credit).

Family Credit of Tax

The amount of the tax credit is the Family Support tax credit plus the Independent Family tax credit less the amount of family credit abatement.

Family Support Tax Credit

The rates for the 2002 income year are as follows:

	2001/02
For the eldest child:	
Aged 0 to 15 years	\$2,444.00
Aged 16 years and over	\$3,120.00
For each additional child:	
Aged 0 to 12 years	\$1,664.00
Aged 13 to 15 years	\$2,080.00
Aged 16 years and over	\$3,120.00

The credit is proportionately reduced if the taxpayer is not eligible to receive a full year's credit.

Child Tax Credit

\$780 per dependent child, reduced proportionately if the taxpayer is not eligible to receive a full year's credit.

Parental Tax Credit

\$1200 per dependent child, reduced proportionately if the number of days in the eligible period falls below 56.

Family Credit Abatement

The family tax credits abate if the family income exceeds \$20,000, as follows:

- (i) For income not exceeding \$20,000;
- (ii) For incomes exceeding \$20,000; 18c per dollar of the income exceeding \$20,000 up to \$27,000
- (iii) Over \$27,000; \$1,260 plus 30c per dollar of specified income exceeding \$27,000

The amount of abatement is also proportionately reduced if the taxpayer is not eligible for the tax credits at any stage during the year.

The abatement amount is calculated and first applied to the Family Support tax credit with the remainder, if any, being applied to the child and parental tax credits.

Tax Credit Example

Mr and Mrs TP have four children. Two children are still at secondary school and are aged 15 and 17. The third child is at primary school and is under 13. The youngest child was born on 1 November 2000.

For the 2000/01 income year the family's net income for the purposes of the tax credit totals \$37,500. Both parents live together as a family unit and care for the children for the whole income year.

The Part KD credit is calculated as follows:

Family support credit, S KD 2(3)	\$	\$	\$
Eldest child		3,120	
Other dependants:			
- one child of 15 years		2,080	
- one child under 13		1,664	
newborn child (\$1,664 x 151/365 days)		<u>688</u>	
			7,552

<i>Child tax credit, s KD 2(4)</i>			
<i>\$780 x 3 children</i>		2,340	
Newborn child (\$780 x 151/365 days)		<u>323</u>	2,663
<i>Personal tax credit, s KD 2(5)*</i>			
<i>\$1,200 x 1 dependent child</i>			<u>1,200</u>
			11,415
<i>Family credit abatement, s KD 2(6)(b)(iii)</i>			
<i>Specified income</i>	37,500		
<i>Exceeds</i>	<u>27,000</u>	1,260	
	10,500		
<i>Plus 30c/dollar excess (\$10,500 x 30c)</i>		<u>3,150</u>	
<i>Abatement</i>			<u>4,140</u>
<i>Tax credit payable to principal caregiver</i>			7,005
<i>(Amounts have been rounded)</i>			

* It is assumed that Mr and Mrs TP did not receive a specified payment and did not have a suspended entitlement to an income-tested benefit.

Source: N.Z Master Tax Guide. CCH

Family Tax Credit

This tax credit is paid in addition to the Part KD credits for full-time employees with dependent children and a low income. The family tax credit is aimed at supplementing the income of working families with dependent children to a guaranteed after tax income. The tax credit is based on both the period of eligibility and the number of weeks that the claimant is a full-time earner within that period.

The tax credit is \$15,080 for the 2001/2002 income year less the amount of net specified income, and is proportionately reduced if the taxpayer is not eligible to receive a full year's credit. In effect, if the net specified income exceeds \$15,080, the family tax credit is zero.

4.5 CALCULATING TAXABLE INCOME - COMPANIES

A company pays tax in its own right (i.e. it is separate and distinct from its shareholders). The company rate of tax on income derived by New Zealand resident companies is 33%. Taxable income means business income less allowable deductions including depreciation. Under the imputation system, tax payable by a company can be available as a tax credit to the shareholders by the way of imputation credits attached to dividends. Companies pay tax through the provisional tax system (see *Section 4.2.4*).

4.5.1 Imputation System

Dividends paid can be subject to imputation tax credits. This means that tax paid by the Company can be passed on as a tax credit to the shareholders.

In a simplified example:

Family Company Limited earns a taxable income of	\$100.00
Company tax payable (33%)	<u>33.00</u>
Profit after tax	<u>\$67.00</u>

The directors decide to declare a dividend of \$33.00. They have the option of deciding how much imputation tax credit can be attached to the dividend, although the maximum imputation credit cannot be: (a) more than the ratio of tax to income at the current tax rate, and (b) more than the amount of tax paid.

$$\begin{aligned}\text{Maximum ratio} &= \frac{\text{tax rate}}{1 - \text{tax rate}} \\ &= \frac{0.33}{1 - 0.33} \\ &= 49.25\% \text{ of the dividend}\end{aligned}$$

In the example, the maximum possible imputation credit is the total tax paid by the company, i.e. \$33.00 - see (b) above. However, the maximum possible imputation credit also cannot exceed the ratio multiplied by the dividend, i.e. \$16.25 (\$33.00 x 49.25%) - see (a) above. Therefore, the maximum imputation credit that can be distributed with this dividend is \$16.25.

The remainder of the tax paid can be carried forward, subject to shareholder continuity rules being met, in an imputation credit account. The balance carried forward can be used for tax credits in later years. Assuming the directors decide to distribute the maximum tax credit shown above, this will affect the shareholders (in total) as follows:

Dividend received by shareholder	\$33.00
plus imputation credit advised on the dividend notice:	<u>16.25</u>
Total to be declared on the tax return along with other income	<u>\$49.25</u>

Tax on \$49.25 at 33% (personal tax rate)	\$16.25
Deduct imputation tax credit advised by the company (as above)	<u>16.25</u>
	<u>\$0.00</u>

Additional tax to pay as a result of receiving a \$33.00 dividend is \$0.00.

The company must maintain an Imputation Credit Account (ICA)

This account will include:

CREDITS:

- All Company tax payments
- Balances brought forward from previous years (but only from 1988-89 and later)
- Dividends received with imputation credits attached

less DEBITS

- Imputation credits allocated to shareholders on dividends declared;
- Tax refunds received

The Imputation Credit Account can go into debit, by allocating the shareholders' credits before the company pays its tax, but it must be zero or in credit by 31 March each year, or the amount overpaid plus a penalty (of 10%) is payable. An imputation return must be filed by 31 May each year. These dates apply regardless of the company's actual balance date.

To Summarise:

Imputation means that company dividends are not subject to double taxation. Company tax paid by the company can be passed on as a credit to shareholders. As a result, if a company has enough imputation credits, and decides to distribute them, then dividends received should not result in extra tax to pay.

Resident Withholding Tax

Resident withholding tax (refer *Section 4.2.3*) must also be deducted from dividends at a rate of 33%, but any imputation credits are offset against the amount to be deducted.

4.5.2 Bonus Issues

A company can now elect to treat a bonus issue as either taxable or non-taxable.

4.5.3 Losses

Losses can be carried forward and deducted from the first available assessable income, subject to the following rules:

- At least 49% of the voting interests or market value interests in the company must be held by the same shareholders from the beginning of the year of loss to the end of year of carry forward.
- Losses must be offset in the same order as incurred.
- Losses can be group offset between a loss company and a profit company provided that there is a minimum 66% common shareholding between the two companies.

4.5.4 Payments to Associated Persons

Special considerations apply where associated persons (for example, relatives) of the shareholders or directors receive remuneration from the company. These may affect arrangements to split income between family members, and it would be advisable to seek professional advice under these circumstances.

4.5.5 Dividends Received by Companies are Taxable

Dividends received by a company are taxable but imputation credits may be attached to eliminate tax liability. Dividends received from a foreign company may be subject to a foreign dividend withholding payment of 33% of gross dividend less any foreign withholding tax paid.

4.5.6 Qualifying Companies

Closely held companies may elect to be taxed as though they are a partnership under the Qualifying Company tax regime.

The criteria for a company to be a qualifying company include:

- not a unit trust
- not a foreign company
- at all times during the year the company has a maximum of five shareholders, or is a flat-owning company
- each shareholder must be a natural person, another qualifying company, or a trustee of a trust where all cash dividends and taxable bonus issues are distributed to beneficiaries
- foreign non-dividend income under \$10,000
- all directors and shareholders 20 years of age and over must elect that the company become a Qualifying Company
- shareholders must elect to be personally liable for their share of income tax payable by the company.

An entry tax, called Qualifying Company Entry Tax, is payable on entry to the scheme. This is 33% of taxable revenue reserves that would arise had the company been wound up at the time of entry.

The major advantages and disadvantages of electing to become a Qualifying Company are as follows:

Advantages

- Capital gains can be distributed tax free without liquidation of the company.
- Tax losses can be allocated directly to the shareholders. (Certain additional criteria must be met.)
- Dividends paid are either tax free to individual shareholders or have maximum imputation credits attached.

Disadvantages

- Shareholders are personally liable for company tax of Qualifying Company.
- Cost of entry into the regime.

- Tax losses incurred before becoming a Qualifying Company cannot be carried forward i.e. are forfeit.
- Complex rules of the regime.

Any taxpayer contemplating election as a Qualifying Company is advised to seek professional advice.

4.5.7 Repurchase of Shares by a Company

Under the Companies Act 1993, a company may repurchase shares which it has issued. This amounts to a distribution, but may not be subject to tax. The rules regarding the cancellation, repurchase or redemption of shares are complex, and professional advice should be sought concerning the impact such activities have upon company tax.

4.6 CALCULATING TAXABLE INCOME – PARTNERSHIPS

4.6.1 Overview

A partnership is not a taxpaying entity and is not itself liable to pay tax. However the partnership must file a return of income (IR7) that shows the partnership income (or loss), and details the distribution of income among the partners. Each partner must then file an annual return declaring their portion of the partnership income. Accounts should be furnished.

The partnership's assessable income is calculated under the same provisions that apply to other businesses conducted by individual sole traders or by companies.

Each partner is liable for tax as an individual and must add his or her share of the net partnership income to income from other sources. Partnership losses are also allocated to the individual partners, as a partnership may not carry a loss forward.

Payments of salary or wages and bonus payments made to a working partner under a written contract of service will be tax-deductible to the partnership. Normal PAYE procedures will apply to these payments.

4.6.2 Family Partnerships

The use of family partnerships, has been a common device for splitting income among family members.

If the Commissioner of Inland Revenue believes that the remuneration or share of profits paid to the relative is excessive, he has the power to reallocate the partnership income for taxation purposes between the partners in such shares as he considers reasonable, having regard to the capital and services contributed by the partners and other relevant matters.

4.7 CALCULATING TAXABLE INCOME - TRUSTS

A trust is an equitable obligation binding on a person (who is called a trustee) to deal with property over which he has control (which is called the trust property), for the benefit of persons (who are called the beneficiaries) of whom he may himself be one, and any one of whom may enforce the obligation.

It is not necessary that a trust be in writing, as a valid trust can be created by an oral agreement, or by the conduct of the parties concerned. However, it is desirable to evidence a trust in writing by a Deed of Trust, or inclusion in a will, or by some other trust instrument.

Trusts are commonly used as a means to hold family assets until children reach an appropriate age. They can have advantages in estate planning, and have some income tax effect.

4.7.1 Classification of Trusts

The Income Tax Act distinguishes between three types of trust:

Qualifying Trust

This category covers most New Zealand based trusts.

Foreign Trusts

Generally trusts settled by a non resident.

Non-Qualifying Trusts

All other trusts - generally those with an off-shore trustee.

Special rules apply to foreign trusts and non-qualifying trusts. These are not dealt with in this Manual.

4.7.2 Liability for Income Tax (qualifying trusts)

A trust is a separate legal entity, and as such all the income of a trust is liable for income tax in the hands of the trustee, either as *Trustees Income* or as *Beneficiary Income* where the trustee acts as the agent of the beneficiary (although the primary liability remains with the beneficiary).

Beneficiary Income is:

- Where a beneficiary of any trust becomes entitled to income under a specific provision of the trust deed or by the discretionary act of the trustee; or
- Where the trustee pays or credits income to, or on behalf of the beneficiary of a trust, during or within six months after the income year by a genuine transaction which places the income beyond the possession and control of the trustee in his/her capacity as trustee of that trust.

Trustee Income is any income that is not distributed as Beneficiaries' Income.

In the case of *Beneficiary Income*, the taxation liability is determined by calculating the tax liability of the beneficiary as an individual. If the beneficiary derives additional income, a

personal return of income should be filed incorporating his/her trust income and the tax already paid by the trustee on his/her behalf.

Note: Refer to *Section 4.7.3* for amendments applying to the 2001/02 income year.

Trustee Income is any income which is not distributed as *Beneficiary Income* and is taxed at 33%.

Provisional tax will normally be paid on the income of a trust. The return of income for the trust (IR6) will be filed by the trustee(s). Trust income is taxed once only so that a distribution to a beneficiary is not taxed if the trustee has paid tax on the income previously.

4.7.3 Amendments to Beneficiary Income for 2001/02 Income Year

Amendments applying to the 2001/02 income year intend to tax trust distributions of more than \$200 to New Zealand resident minor beneficiaries at the trustee income tax rate of 33%. Only distributions from trusts settled by a relative or guardian of a minor, or an associated person of a relative or a guardian, will be subject to this rule.

Such distributions will not be gross income of the minor beneficiary. For the purposes of this rule a minor is a person who is under the age of 16 on the balance date of the trust. Specific types of trust will be exempt from this rule:

- a trust settled by a relative, guardian or associated person as an agent of a minor if the settlor has received the property from a third person;
- a trust settled by a relative, guardian or associated person if the settlor is required by a court order to pay damages or compensation to the minor;
- a trust settled under the terms of a will, codicil or intestacy if the minor is alive within 12 months of the date of the settor's death.

Distribution to minor beneficiaries under the above exemptions and distributions to adult beneficiaries are taxed at tax rates applicable to the beneficiary, eg. 19.5%, 33%, 39%.

4.8 CALCULATING TAXABLE INCOME – FARMERS

4.8.1 Farm Income

The assessable income of a farmer will include the following:

- Business profits from trading operations, calculated as sales *less* purchases and other business expenses *plus or minus* changes in value of stock on hand at the end of the year (increases are added, decreases are subtracted). (For valuation of stock, see *Section 4.8.6*).
- The value of meat and produce consumed domestically. (Usually nominal value if grown/raised on the farm.)
- Income received from any contracting work.
- Rents received from leasing farm property, including grazing fees.
- Receipts from the hire of livestock and plant, including stud fees.
- Insurance proceeds in respect of the loss of crops or stock.
- Prize money from A & P shows, less entrance fees and other related expenses.
- Compensation for stock condemned.
- Refunds from the Income Equalisation scheme, including interest.
- Income from the sale of timber, including standing timber and trees planted for agricultural purposes. See *Section 4.8.7*.
- Income from dealings on the futures market, e.g. wool futures.
- Other items including any other categories of income generated by the farm business and income from any off-farm activities or investments.

4.8.2 Farm Expenses

Private expenses in the nature of household stores, domestic wages, repairs to household equipment, etc. are to be treated as private drawings, and must not be charged against farm income. Similarly, the private portion of expenses on the dwelling and car, should also be regarded as drawings.

In addition to the appropriate business expenses, farm expenses will include the following:

- Aircraft expenses (running costs and depreciation) in respect of the use of an aircraft used for farming purposes adjusted for an apportionment between business and private use
- Accident compensation levies
- Accommodation supplied to employees. A deduction may be claimed for accommodation supplied to all employees except partner-managers and all expenses (e.g. mortgage interest, repairs, maintenance etc) are deductible in full. The value of board and lodging supplied to an employee is treated as assessable income and subject to PAYE deduction. Where accommodation is supplied to a partner-manager, the partnership can claim 25% of the costs of the dwelling.
- Compensation for sheep worrying damage caused by farm working dogs

- Dairy Farming Expenditure. The Commissioner has issued an interpretation statement (Tax Information Bulletin Vol 12 No. 2 Feb 2000) that sets out his view on the deductibility of a number of expenditure items relating to operating a dairy farm. The Commissioner's conclusions can be summarized as follows:
 - the cost of replacing a single component of milking plant (eg. A pump or the pulsator units) is generally deductible;
 - some components of a milking plant will, however, be non-deductible capital items because they are unlikely to be replaced other than as part of an upgrade (eg. Stainless steel pipe work and milk filters);
 - where a number of milking plant components are upgraded at the same time, the cost is usually on capital account and not deductible;
 - the cost of replacing a rotary platform system in a rotary milking operation is a non-deductible capital expense;
 - the cost of replacing either the platform, the motor or the drive mechanism of the rotary platform is a non-deductible capital expense;
 - the piping used in a dairy shed complex is not a fence for the purposes of s DO 3 or s DO 4;
 - the cost of replacing a damaged pipe-work gate leading to or from the dairy shed or yard is deductible; and
 - the cost of replacing overhead power lines to the dairy shed with an underground system of power is a capital expense and not deductible.
- Depreciation on farm assets, plant and equipment and depreciable land improvements and intangible assets. (see *Sections 4.8.3 and 4.8.4*)
- Electricity. A deduction is allowed for all electricity costs attributable to running the farming business. A deduction of 25% of the cost of electricity consumed by the farming household is also permitted.
- Farm fertiliser. A deduction is allowed for expenditure on fertiliser and lime, including spreading and the deduction may be claimed either in the year the expenditure is incurred or in any of the following four income years.
- Farm consumables. A deduction may be claimed for farm consumables such as hay, stock feed, twine, dip and drenches provided that the value of consumables falls within the accrual expenditure exemptions in Determination E10. (see Appendix, *Section 4.15.7*)
- Farm dwelling expenditure. A deduction is allowed for 25% of farm dwelling expenditure such as repairs and maintenance, depreciation etc. The Commissioner has stated there is no requirement for full-time farmers to apportion interest payable on a mortgage secured over a farm between amounts applicable to the dwelling and the farm business. (IRD Technical Rulings para 51.5.1) It would appear that the Commissioner considers the farm dwelling to be a necessary part of carrying on a farm business.

- Income spreading schemes. Taxable income may be altered by shifting deductions for certain expenditures (such as fertiliser application) to future income years. Farm income may also be shifted to subsequent income years under the Income Equalisation Scheme – see *Section 4.8.5*
- Insurance premiums paid for insurance cover over farm assets and livestock.
- Land Development expenditure (see *Section 4.8.3*)
- Legal expenses incurred in raising a mortgage to buy a farm property or farm assets or in borrowing money for farm purposes.
- Legal expenses incurred in entering into or renewing a lease of farm property or farm assets and in the preparation of share milking agreements.
- Motor vehicle expenses including depreciation applicable to farm business use. The proportion of deductible motor vehicle expenses is based on the ratio of business use to total use. The ratio is established from details recorded in a logbook over a representative 90 day period, and applies for a maximum period of 3 years. A new ratio must be established if business usage declines by 20% or more so that the established ratio no longer fairly represents business usage. Where insufficient records are kept, the maximum deduction allowable for business use is limited to 25% of motor vehicle expenses.
- Pest Destruction Board contributions.
- Prepaid expenditure. Expenditure must be claimed as a deduction in the income year to which the expenditure relates. However for practical purposes, smaller items of pre-paid expenditure can be claimed as a deduction in the current income year if the type of expense and the amount comply with Determination E10 –*See Appendix, Section 4.15.7*. For example, rent paid in advance which is less than \$23,000 and which relates to a period less than six months after balance date can be deducted in the current income year. Rent for a higher amount, or paid for in advance over more than six months, must be carried forward and deducted in the following income year, being the year to which it relates.
- Protective clothing, e.g. wet weather gear, spray masks etc.
- Rates including the proportion attributable to the farm dwelling.
- Repairs and maintenance excluding capital improvements.
- Stores and rations provided to employees:
Supplied to an outside employee (including a partner with less than 20% interest): the farmer can claim the actual cost of additional stores and rations purchased if accurate records are kept. Otherwise the deduction is limited to \$10 per employee per week. Applies where costs have not already been claimed as a tax deductible farm expense.

Supplied to related married employees or part proprietor employees; the actual cost of stores and rations supplied is tax deductible.

- Subscriptions and levies. A deduction is allowed for the cost of papers and magazines containing farming information.
- Wages paid to spouse.

Payments for cooking duties in respect of permanent employees (including adult members of the farmer's family employed full-time) will be allowed as a deduction on the basis of:

One permanent employee	- \$18 per week
Two permanent employees	- \$27 per week
Three permanent employees	- \$33 per week

and thereafter an additional \$4.50 per employee per week.

It is necessary that the requirements for the payment of wages between husband and wife are met, that is, declaration that the wages are genuine services, IR330 completed, regular cash payments, tax and Accident Compensation levy deducted and accounted for. The following should be noted:

- ◇ Payments for work performed on, or on behalf of, the farm may be deductible if the Commissioner of Inland Revenue has given prior consent to such payments. Before consent is granted, the Commissioner must be satisfied that the payment is for genuine services rendered in producing assessable income for the year.
- ◇ An application for approval must contain certain details (the Inland Revenue Department provides appropriate declaration forms), but subsequent to approval, only written confirmation that wages are still being paid on the agreed basis is required. The declaration should be filed before the employment commences.

This payment is in addition to any special arrangements made in respect of seasonal or part-time employees, e.g. shearers.

For a business registered for GST purposes, GST paid on items purchased is not a tax-deductible expense, since it can be recovered as a GST input. However, if the taxpayer is not registered for GST purposes, then GST forms part of cost and is tax deductible if the item to which it relates is deductible.

4.8.3 Deductions for Land Improvement Expenditure (Development Expenditure)

Expenditure on land improvements would normally be regarded as the improvement of a capital asset and under usual principles be regarded as non-deductible capital expenditure. However as a specific concession, a small number of land improvement expenditures are deductible as development expenditure.

The following expenditures are deductible in full in the income year they are incurred.

- The destruction of weeds, plants, or animal pests detrimental to land
- The clearing, destruction, and removal of scrubs, stumps and undergrowth
- The repair of flood and erosion damage
- The planting and maintaining of trees for the purpose of preventing or combating erosion
- The planting and maintaining of trees for the purposes of providing shelter
- The construction on the land of fences for agricultural purposes, including the purchase of wire or wire netting for the purpose of making new or existing fences rabbit proof

Other expenditures on land improvements must be capitalised as an asset and depreciated at the rates set out in *Section 4.15.3 Expenditure on Land and Aquaculture Improvements*. Such expenditures qualify for the 20% loading for 1996 and subsequent income years

A deduction is allowed for tree planting and maintenance if the principal activity undertaken on the land is a farming or agricultural business. The maximum deduction for tree planting/maintenance expenditure is \$7,500.

Purchase of Land

Where land is purchased, any development expenditure incurred by the previous owner can continue to be depreciated.

Development Expenditure Example

In the year ended 30 June 2002, a farmer incurs the following expenditure:

New Fencing	\$3,000
Shelter Structures	\$5,000
Repairs to Access Road	\$1,000

The amounts deductible are:

New Fencing - Total amount deductible in full	\$3,000
-----------------------------------------------	---------

Shelter Structures -

'Depreciation' deduction 12.5% of \$5000	\$625
<i>Diminished value for next year's calculation = \$4375 (\$5000 - \$625)</i>	

Repairs to Access Road -

Deductible in full as repairs and maintenance	\$1,000
-----------------------------------------------	---------

4.8.4 Depreciation

(See also *Section 4.8.3 for Depreciation on Land Improvements*).

Depreciation is an allowance for loss in value of a fixed asset due to fair wear and tear, obsolescence, etc. which is allowed as a tax deduction. Not all assets are depreciable, for example, assets which are not used to produce assessable income, or assets which are not subject to wear and tear (such as land). Where an asset has a part business and part private use, depreciation is calculated at the schedule rate and then apportioned between business and private use (e.g. car depreciation).

Depreciation is calculated on the net price of the asset which generally would exclude GST if the taxpayer is registered for GST purposes. For a non-registered taxpayer, depreciation is calculated on the GST inclusive cost.

Depreciation is based on the effective working life of the assets concerned, giving rise to the concept of economic rates. Depreciation rates can include a loading that is the economic rate multiplied by 1.20.

The taxpayer has a choice of 3 methods of depreciation: diminishing value method, straight-line method, and the pool method.

Diminishing value (DV) method is a constant percentage of adjusted tax value. The rates applicable to each asset are set by the IRD although a taxpayer may apply for a special rate. Selected examples of the economic rates are set out in *Section 4.15.9*.

Straight line (SL) method is a constant percentage of cost price. The rates are set by the IRD although special rates may be approved. Selected examples are set out in *Section 4.15.9*.

Pool method allows the grouping of low value assets, with depreciation being charged on the total of the pool. Buildings cannot be pooled. To pool property, the following criteria must be satisfied:

- (i) The maximum cost or depreciated book-value of any one asset is less than \$2,000.
- (ii) Taxpayers can use more than one pool. This is important because the lowest rate applying to any asset in a pool must be used.
- (iii) The assets must be used 100% for business purposes or be subject to FBT if their business use is less than 100%.

There is no restriction on the number of assets in a pool. Depreciation is calculated using the diminishing value method on the average value of the pool. The rate of depreciation is the lowest rate applying to any asset in the pool.

Example:

Value of pool at year start	\$18,000
Asset purchased during year	<u>6,000</u>
Value at end of year	<u>\$24,000</u>
Average value of pool	$= (\$18,000 + \$24,000) \div 2$ $= \$21,000$
Depreciation at (say) 22% DV	$= \$21,000 \times 22\%$ $= \$4,620$
Pool value at end of year	$= \$24,000 - \$4,620$ $= \underline{\underline{\$19,380}}$

Changing Between Methods

Taxpayers can change the method(s) used for depreciation on a year to year basis, except when the asset is included in a pool. The carrying value for subsequent depreciation calculations is the current adjusted tax value. Charts exist to convert diminishing value rates to/from straight line rates. The Schedule of economic rates (*Section 4.15.9*) shows rates for both methods of depreciation.

Adjustments

Assets other than pool assets acquired during the year may be depreciated (DV or SL) for the number of months owned.

Additions to an existing pool are taken into account when the average value of the pool is calculated.

Disposal of assets other than pool assets - Assets other than buildings may not be depreciated in the year of disposal. Buildings may be depreciated for the number of months used in the year of disposal. A loss on sale is tax deductible (except for buildings). A gain on sale in excess of the depreciated book value is assessable except that any excess over original cost price is a capital gain and is not taxable.

Disposal of pool assets - The sale price must be deducted from the adjusted tax value of the pool before depreciation is calculated. No adjustment should be made if the pool asset is dumped or lost. If the resultant pool value is negative, that amount must be treated as depreciation recovered i.e. assessable income. The pool value becomes zero and no depreciation is charged until new assets are added to that pool.

Private use of non-pool assets - Depreciation must be apportioned between personal (non-deductible) expenditure and business (deductible) expenditure using an appropriate measurement base. For vehicles the same apportionment as for running costs must be used i.e. factual apportionment when complete records are kept, or based upon a test period of 3 months (subject to review every 3 years).

Private use of pool assets - Depreciation on pool assets cannot be apportioned - by definition, pool assets must have 100% business use. If the usage of a pool asset is not totally business related, it must be removed from the pool (deemed sale at market value) and then depreciated separately. Depreciation can then be apportioned between business and personal.

Special Rules

Computer Software - Expenditures on or after 1 July 1993 must be capitalised and depreciated at 40% DV or 30% SL. Software costing less than \$200 may be immediately expensed. Costs of upgrades follow the same rules.

Loose tools are consumable items of the type that are left on the shelf or in a chest when not in use. Loose tools should be treated as any other asset i.e. separately depreciated, pooled, or treated as a low value asset.

Low value assets costing \$200 or less may be claimed as a deduction (subject to some rules).

If such property is subsequently sold, the entire sales proceeds are assessable.

Assets which are scrapped may, with IRD approval, be totally written off. The disposal costs must exceed the expected sale proceeds for such assets. If a scrapped asset is later sold, the proceeds are assessable up to original cost.

Transfers of depreciable property between associates. In general terms, the base value of an asset purchased from an associate is the lower of the original price paid by the seller or the price paid by the buyer. In addition the purchaser cannot claim a higher rate of depreciation than that used by the seller.

New assets and imported second-hand assets excluding imported used cars, buildings, intangible assets and software, may be depreciated at the economic rate plus a 20% loading. Secondhand property, imported used cars and buildings are depreciated at the appropriate economic rate.

Depreciation Regime Prior to 1993-94 Income Year

Depreciation was required to be calculated as a percentage of either the cost price of the asset (CP or straight line method) or the diminishing book value (DV method). The Inland Revenue Department specified both the maximum allowable rate (although a lesser rate could be claimed) and the method of depreciation. The Department also has discretion to allow special rates of depreciation in some circumstances.

Schedule rates are listed in *Section 4.15.10*.

Assets Acquired During the Income Year

Depreciation is calculated on a monthly basis. Annual depreciation deductions are based on the number of months or part months as asset is owned.

Assets Sold During the Income Year

When a depreciable asset is sold, the total depreciation already allowed is adjusted so that the amount equals the actual decline in value from original cost to the disposal value. The amount of the adjustment is calculated by comparing the net sales proceeds (after deducting the costs of sale) with the book value of the asset.

If net sales proceeds are less than book value i.e. a loss on sale occurs, the loss is deductible in the year of sale. However, losses on sale of buildings are not tax deductible.

If net sales proceeds exceed book value i.e. a gain on sale occurs, the gain is assessable in the year of sale, except that any excess above the original cost price represents a capital gain which is not taxable.

Summary of Depreciation Methods

<i>Date of acquisition</i>	<i>Rates</i>
1995/96 and later income years	New economic rates plus 20% uplift for new assets (not including buildings, used imported motorcars or fixed life intangible property)
1 April 1993 to 1994/95 income year	Old schedule rates plus 25% uplift (where applicable) or new economic rates (without uplift)
16 December 1991 to 31 March 1993	Old schedule rates plus 25% uplift (were applicable)
15 December 1991 and earlier	Old schedule rates

4.8.5 Income Equalisation Schemes

There are three income equalisation schemes.

- i) Ordinary income equalisation scheme
- ii) Forestry income equalisation scheme
- ii) Adverse event income equalisation scheme

Ordinary Income Equalisation Scheme

This scheme allows a farmer to level out income from year to year by permitting a reduction in assessable income by the amounts deposited with the Inland Revenue Department. These deposits are retained in the Income Equalisation Reserve Account in the farmer's name. When amounts are withdrawn at a later date, they become assessable income.

Those taxpayers eligible to take advantage of the ordinary income equalisation scheme are:

- a taxpayer engaged in any farming or agricultural business.
- a taxpayer engaged in any business of fishing including rock oyster, mussel and freshwater fish farming.
- an individual taxpayer (not a company, public authority, or unincorporated body) who derives assessable income from forestry i.e. from the sale of standing, cut or fallen timber in its natural state grown on land owned by the taxpayer in New Zealand or the rights to cut or remove such timber.

Deposits

Assessable income is reduced by the amount deposited during a year. Deposits may, however, be used to reduce the income of the immediately preceding year upon the taxpayer's written election, provided the deposit is made within the shorter of:

- six months after balance date; or
- one month after the due date for filing the return of income.

The maximum amount of deposits in any one year is the assessable farm income for that year, and each deposit must be a minimum of \$200 (except the last deposit to make up the maximum).

The minimum period of deposit is one year (able to be relaxed under certain circumstances) and the maximum period for any one deposit is five years.

Generally no deposit can be made in a year when the farmer voluntarily withdraws funds from the Income Equalisation Reserve Account.

3% interest is paid on deposits held (except those withdrawn within one year), and credited to the appropriate deposit.

Withdrawals

Compulsory refunds are made if a deposit reaches the maximum term of five years. Voluntary refunds (withdrawals) can be made at any time but must be made from funds deposited for a minimum period of 12 months, subject to the following exceptions:

- (a) If deposited for six months or more, funds may be withdrawn:
 - ◊ For immediate expenditure on planned development or maintenance work;
 - ◊ To purchase livestock;
 - ◊ To avoid hardship.
- (b) If deposited for less than six months, funds may be withdrawn:
 - ◊ For immediate expenditure on unplanned development or repair work resulting from an adverse event;
 - ◊ To purchase replacement livestock due to an adverse event;
 - ◊ To avoid hardship.

All refunds become assessable income in the income year when the application is made, or the immediately preceding year on the same conditions as for deposits.

A refund will not attract more tax than the deposit saved.

Refunds are made from the oldest deposits first.

Forestry Income Equalisation Scheme

There is a limited income equalisation scheme for a forestry company earning income from thinning operations. Thinning operations means the felling of trees in an immature stand to improve the growth and form of the trees remaining in the stand.

The minimum refund is \$200 unless the account balance is smaller; the maximum is the account balance.

There is no maximum time for which deposits by a forestry company may remain in the income equalisation account.

Special rules apply where the refund is due to the retirement, death, or bankruptcy of the farmer.

Adverse Event Income Equalisation Scheme

This scheme, introduced for the 1993-94 income year, allows taxpayers engaged in any farming or agricultural business, to deposit income that arises from the sale of livestock, or failure to replace livestock, due to a self-assessed adverse event.

Deposits may be made during the year or backdated if made within one month after the end of the financial year. Interest at 6.5% p.a. is payable on deposits.

Refunds add to assessable income in the year application is made. Deposits remaining in the Adverse Events Income Equalisation Scheme one year after the event are transferred to the Main Income Equalisation Scheme.

4.8.6 Valuation of Trading Stock

General Principles

The value of the trading stock of any business at the beginning and at the end of every income year must be included in calculating taxable income. The value of trading stock on hand at the end of the year is included in assessable income; the value on hand at the beginning of the year is deducted from assessable income.

In general, the taxpayer has the option of valuing trading stock at cost price, market selling value, or replacement price. In practice, the lowest possible value is generally the most advantageous for taxation. Livestock is valued according to special rules (see below).

Consumable Aids

Items consumed in the production of trading stock, but which do not form part of the final product, are regarded as consumable aids and not as trading stock. Therefore, expenditure on items such as fuel, farm chemicals, fertiliser held for spreading and hay held for winter use may be fully deductible in the year the expenditure is incurred, although some unconsumed stocks may be held at the end of the year, if the amount of consumables complies with Determination E10.

However, if the value of all unused consumables on hand at balance date exceeds \$58,000, then the original expenditure cannot be treated as a lump sum expense, but must be spread over the period(s) when they are actually used. Refer to *Section 4.15.6, Accrual Rules for Expenditure*.

Growing Crops, Fruit and Vegetables

Crops, fruit and vegetables and other products which grow from the land and are attached to the land are regarded as part of the land itself, i.e. a capital asset. Growing crops are not regarded as trading stock unless and until they are harvested or severed from the land.

Valuation of Livestock (Refer also to Sections 4.15.4 and 4.15.5.)

Farmers who farm sheep, beef cattle, dairy cattle, deer, goats or pigs (referred to for tax purposes as specified livestock), are required to value their livestock for taxation purposes using the valuation methods prescribed by the Income Tax Act. The available methods are:

- The herd scheme
- The market value or replacement price option
- The national standard cost scheme
- The self-assessed cost scheme

See *Section 4.15.5* for advice on Livestock Valuation Option Selection.

For non-specified livestock (such as horses, rabbits, dogs, or ostriches) other than bloodstock, the valuation options are:

- Cost price
- Market value
- Replacement price
- Standard value as agreed by IRD

Standard value is a fixed value which stays the same for each category of stock from year to year and differs from the national standard cost scheme for specified livestock

In addition, the High Priced Livestock Scheme must be used where relevant livestock qualify.

Herd Scheme

The herd scheme valuation method values each type of livestock on the basis of age classes at National Average Market Values (NAMV) set annually. In each income year, herd livestock on hand at both opening and closing balance dates are valued at the NAMV set for that income year. This effectively removes any gross income arising from the movement of livestock values between years.

The philosophy underlying the herd scheme is that the herd is a capital asset, and movements in herd values should be treated as a non-assessable gain or loss to the farmer. Changes in herd numbers or the composition of the herd will affect taxable income.

All classes of livestock are eligible for the herd scheme. The farmer can select:

- (i) the classes of livestock, and
- (ii) the number of animals within each class, which are to be valued under the herdscheme.

The remaining animals in each class must be valued under one of the alternative options.

Once the herd scheme has been adopted, any increase in a class of livestock over a 'base number' may be valued using an alternative valuation option. The base number is the closing herd number for that class in the preceding year. This is a voluntary option entirely at the discretion of the farmer. While the alternative valuation option does increase the flexibility of the herd scheme, it also requires an increase in record keeping as some form of inventory system must be kept.

Subject to a supporting valuation, herd values for any farmer may be set at 90%, 100%, 110%, 120%, or 130% of the National Average Market Value. Prior modification of an intention to change is required. Any income or loss arising from a change of herd value percentage will be assessable or deductible in the year of change.

National Average Market Values (NAMV's) are published annually by the Tax Department. NAMV's for the current income year are usually announced in April/May and published in the Tax Information Bulletin and can be accessed on the IRD's website. Refer to *Section 4.15.4*, for the 1998, 1999, 2000 and 2001 values.

Movement to/from the Herd Scheme

Any number of livestock in any age class may be moved to the herd scheme in any year without notice. This includes first adoption of the herd scheme and/or the progressive movement of stock classes or numbers to the herd scheme from another option.

Market Value or Replacement Price

Market value is the estimated selling price of the livestock, whereas replacement price is the cost of buying an animal of the same size, age, and breed. Market and replacement values must be supported by a valuation from a recognized livestock agent.

Market value/replacement price can be used as an alternative when using either of the cost options. However the market value and replacement price options are unlikely to be used unless these values fall below cost.

Cost

National Standard Cost

The National Standard Cost (NSC) option is a simplified way of calculating the cost of livestock produced on a farm (home bred). It is based on national average costs of production rather than on market values. A farmer will apply NSC to homebred stock while purchased stock will be valued at purchase price.

NSC's for the current income year are announced approximately in January and published in the Tax Information Bulletin and can be accessed on the IRD's website.

Cost per head is accumulated until the animal reaches maturity (1 year for pigs, 3 years for male cattle, 2 years for all other livestock). The aggregated cost will be held at that level within an inventory system (such as average cost) until the livestock is disposed of.

National average costs will be announced annually by the Tax Department as:

- breeding, rearing and growing (BRG) costs of rising 1 year livestock of each type;
- rearing and growing (RG) costs for rising 2 year livestock of each type except pigs;
- rearing and growing costs for 3 year male cattle.

The average cost of livestock purchased must also be included in order to determine the final cost per head. Thus, average cost will be specific to each farmer.

Only one cost option may be operated at any one time.

Example calculations (indicative costs only).

Example 1 Homebred sheep

Year 1:	BRG costs from IRD	\$13.00 per head
	Value per head = \$13	
Year 2:	R1 year value	\$13.00 per head
	RG ₂ costs from IRD	\$ 8.00 per head
	Value per head = \$21	

Example 2 Rising 1 year stock

No of lambs bred	1000
No of lambs purchased	400
Average purchase price	\$25 per head
BRG costs from IRD	\$13 per head

Calculation:

Homebred lambs	1000 @ \$13	\$13,000
Purchased lambs	<u>400 @ \$25</u>	<u>10,000</u>
	<u>1400</u>	<u>\$23,000</u>

$$\begin{aligned}\text{Average cost of lambs} &= \$23,000 \div 1400 \\ &= \$16.43 \text{ per head}\end{aligned}$$

Note: BRG costs relate to homebred stock only.

No rearing and growing costs are assigned to purchased stock in the year of purchase.
Cost per head is an average over all stock of that class.

Example 3 Rising 2 year stock

NB: The year following example 2.

No of hoggets at start of year	400
Cost of hoggets at start of year	\$16.43
Sheep purchased (not R1 class)	200 @ \$30 each
RG ₂ costs from IRD	\$8 per head

Calculation:

Hoggets at start of year	400 x \$16.43	\$ 6 572
Rearing and growing costs	400 x \$8	3 200
Purchases	<u>200 x \$30</u>	<u>6 000</u>
	<u>600</u>	<u>\$15 772</u>

$$\begin{aligned}\text{Average cost of mature sheep} &= \$15\,772 \div 600 \\ &= \$26.29 \text{ per head}\end{aligned}$$

Note: No rearing and growing costs are assigned to purchased stock in the year of purchase.

The year-end cost of opening stock can also be calculated as

$$\begin{aligned}&\text{Opening stock numbers x (Year 1 cost + RG}_2\text{)} \\ &\text{i.e. } 400 \times (\$16.43 + \$8)\end{aligned}$$

The closing cost (\$26.29 in this example) is held constant until the livestock concerned are either sold or die, or until the valuation method is changed. Depreciation is NOT charged on this stock.

An inventory system is necessary in order to account for **mature** animals. It is suggested that an average cost inventory system would be appropriate for a livestock farmer. This method recalculates average cost annually. FIFO (first in, first out) could also be used.

Example 4 Average cost of mature sheep

Number on hand-start	2000
Intake of mature sheep	700
Sales and deaths of mature sheep	600
Number on hand - end	2100
Last year's average cost (say)	\$25.00 per head
This year's average cost	\$26.29 per head

Calculation:

Cost of sheep surviving from last year:

(Start nos. - sales and deaths) x last year's cost
 $(2000 - 600) \times \$25$ \$35,000

Cost of this year's intake:

$700 \times \$26.29$ 18,403
\$53,403

Average cost per head = $\$53,403 \div 2100 = \25.43 per head

Note: The actual formulae are more complex than these examples show. Farmers should seek professional advice.

Section 4.15.4 details the published National Standard Costs over recent years.

Section 4.15.5 provides example calculations for the herd scheme and the National Standard Cost scheme.

Self Assessed Cost

The self-assessed cost option is based on farmers assessing their own costs according to guidelines issued by IRD. The NSC scheme uses a farmers own costs of production. The self-assessed cost guidelines use livestock units (a well accepted unit based on feed intake) to apportion farm costs between livestock types. The apportioned costs are accumulated to determine the cost of livestock production for the year.

Virtually the same rules that apply to NSC also apply to SAC:

- it is an optional scheme.
- can be used with other schemes except NSC.
- an inventory control system is required for mature stock groups.

Taxpayers cannot use the self-assessed cost and the NSC schemes in the same income year and any change from one scheme to the other requires two years notice.

Self assessed cost cannot be used for stock currently in the herd scheme.
Farmers considering the Self Assessed Cost scheme should seek professional advice.

Changing between Schemes

The main features of the rules governing movement between schemes are as follows:

There is free movement from the national standard cost or from the self assessed cost scheme to the market value or replacement price schemes.

The taxpayer can move animals to the herd scheme on an animal by animal basis; this applies to the adoption of the scheme and to progressive movement of stock numbers or classes to the herd scheme.

Any increase in stock numbers in any herd class valued under the herd scheme can be valued under an alternative valuation option provided a minimum number is valued under the herd scheme.

Revocation of the herd scheme requires notice to be filed with the tax return relating to the two income years prior to the year in which the change is to occur (a two year notice).

A two-year notice is required before farmers can change from the national standard cost scheme to self-assessed cost and vice versa.

A taxpayer cannot use both the national standard cost and self-assessed cost in the same year.

High-Priced Livestock

High priced livestock are in a separate class for valuation purposes. 'High priced' means that the purchase price is at least \$500 and exceeds by 5 times the higher of the previous year's or the current year's declared National Average Market Value for that class of livestock.

High priced livestock are valued at cost less a write down for 'depreciation'.
Depreciation may be calculated using the straight line method or the diminishing value method. The rate depends on the type of animal, as follows:

Livestock Category	Straight Line Rate (%)	Diminishing Value Rate (%)
Sheep	25	33
Cattle	20	26
Stags	20	26
Other deer	15	22
Goats	20	26
Pigs	33	40

An election to adopt the diminishing value method of depreciation is irrevocable.

There are restrictions on the closing value for the first income year. Where the livestock is owned for less than six months and is not used for breeding purposes, or is less than one year old at balance date, the closing value must be cost price (i.e. is not depreciated).

Once high-priced animals have been depreciated to the NAMV for that class, they will be included in the other valuation schemes operated by the farmer i.e. transferred out of the High Priced Livestock scheme.

Livestock taxation examples are illustrated in *Section 4.15.6*.

Bloodstock

For tax purposes, bloodstock is defined to mean any horse that is a member of the standard bred or thoroughbred breed of horses. All bloodstock is to be valued at cost price. Stud stallions may be written down to \$1 over a period of five years, while brood mares may be written down to \$1 over a period of between three and 14 years depending upon the age when first used for breeding purposes. However, if the true market value of bloodstock is less than 50% of normal market value because of infertility, birth deformity or accident, then the true market value may be used. Costs of breeding and rearing are to be capitalised until the animal is used for breeding. The write-down provisions outlined above commence in the income year in which the horse was first used for breeding purposes.

Changes to the depreciation regime announced on 16 December 1991 increased the depreciation rate applicable to bloodstock used for horse-breeding by 25%. In addition, stallions may be depreciated on a straight line basis (at 20%) or a diminishing value basis (at 37.5%).

With regard to the taxation of horse-breeders who breed livestock for racing purposes, there are two basic principles. First racing stakes or prize money is exempt from tax and consequently no deduction is allowed for the costs of racing bloodstock, any associated racing expenditure or costs of preparing for racing

A 2001 amendment was introduced to exempt from income tax, stake money won from any horse or greyhound competing in any overseas race. The intention was that stake money won in an overseas race would be treated in the same way as stake money won in a race held in New Zealand.

The only exceptions to the non-deductibility of costs incurred in relation to racing activities are for the race preparation costs of professional bloodstock breeders who do not race that bloodstock and taxpayers who incur such expenditure in exchange for assessable income.

The second basic principle is that breeding activities carried on as a hobby are not taxed. It is only activities carried on as a business that the associated expenses will be deductible and the proceeds of sale from the progeny will be assessable.

Horses raced by a bloodstock breeder can be regarded as a hobby or can be treated as part of

the business. Transfers from business to private use must be at market value. Once racing is regarded as a hobby, prize money received is exempt income.

Gains on sale or other disposal of breeding stock may be used to reduce the cost price of replacement bloodstock, if application is made within a specified period.

4.8.7 Farm Forestry and Timber Sales

The principles underlying the taxation of a forestry activity is that any profit or gain made from the extraction, removal or sale of timber or the right to timber is included in taxable income on a net profit basis.

The general principle is that a farmer who harvests a woodlot situated on his or her farm returns as gross income the amounts realized from timber sales with a corresponding deduction for the cost of timber. If the cost of timber is known, the calculation is straightforward. If the cost of timber is not known, the Commissioner's practice is that the net income for tax purposes is the difference between the value determined on a royalty basis of the timber at the time of purchase of the property and the value at the time of sale. The responsibility is on the farmer to establish the cost price of the timber.

Net income from the sale of timber or the right to take timber need not be returned in the income year the timber is sold. The taxpayer can elect to have the income apportioned to the year of sale and the three preceding income years by giving the Commissioner written notice of intention to use the spreading provisions.

Farm Forestry Expenses

A limited deduction is allowed in respect of expenditure incurred by farmers in planting or maintaining trees on the land. The deduction in respect of 1991 and subsequent income years is calculated as being the lesser of the amount of the expenditure or \$7500. A deduction will not be allowed where the expenditure has been incurred under the Forestry Encouragement Grants Regulations of 1981/1983. That part of the expenditure which exceeds \$7500 is either depreciated at 10% p.a. (for trees not intended for timber production) or capitalized to a cost of timber account in the case of forestry plantings.

Forestry and Land Development Costs

A depreciation deduction is allowed for forest land development expenditures listed in *Section 4.15.3*. Forest land development expenditures generally relate to the clearing and preparation of land for planting and the construction of access roads for use for more than 12 months. This type of expenditure is not deductible but must be capitalised and depreciated at applicable depreciation rates.

From the 1996 income year, a 20% loading applies to the depreciation percentage rates. Between 16 December 1991 and before the end of the 1994/95 income year, a 25% depreciation loading applies to percentage rates but may be claimed only by the taxpayer actually carrying out the improvements.

Forestry Planting and Maintenance Expenditure

The following items are tax-deductible in the year the expenditure is incurred:

- Rent, rates, land tax, insurance premiums, administrative overheads, or other like expenses.
- Weed, pest or disease control after trees have been planted. (Excludes releasing.)
- Interest on money borrowed.
- Repairs and maintenance on plant and machinery used to develop land, or to plant or maintain trees.
- Repairs and maintenance on land improvements (not trees).
- Depreciation on plant and machinery used to develop land or to plant or maintain trees.
- Fertiliser.

4.8.8 Limitation of tax losses from farming

There is no limitation regarding the offset of farming losses against other income.

4.9 CALCULATING TAXABLE INCOME - HORTICULTURE

The following provisions relate specifically to horticulture, but readers should also familiarise themselves with the farming provisions (*Section 4.8*).

Purchase of land, including conveyancing fees, is capital expenditure and is not deductible. However, legal fees incurred in arranging finance to purchase the land, or in arranging to lease the land, will be tax deductible.

Buildings are capital expenditure and are subject to depreciation allowances as for a farm (refer *Section 4.8.4*).

Expenditure on land improvements and development is subject to the same rules as for farming (refer *Sections 4.8.4* and *4.8.5*).

Purchase and planting of fruit trees - The cost of fruit trees is capital expenditure. The cost of planting fruit trees is regarded as a land improvement to be capitalised and depreciated (refer *Section 4.8.5*). Fruitgrowers may deduct a portion of the costs of planting vines or trees on the land as land development expenditure. The deduction is calculated at 10% of the net amount or 12.5% where the 25% loading applies with the balance being capitalized and written off on a diminishing value basis. The cost of fruit trees and vines which are scrapped may be written-off. A deduction may be claimed for replacement vines or trees for the same species which has either died or been destroyed.

A deduction may be claimed under the land development expenditure provisions see *Section 4.8.3* for fruit-bearing trees and trees planted for shelter or erosion control purposes.

Expenditure on plants and planting for *asparagus* and *berryfruits* (e.g. blackcurrants, raspberries, strawberries, etc.) should be treated as follows:

- Plant life span of 1 to 5 years: costs either written off in year incurred or over the life span of the plants.
- Plant life span of 6 to 20 years: initial costs are not tax deductible, but subsequent replantings are fully deductible in the year of replacement.
- Crop rotation programme: cost of replacement crop and its planting is deductible in the year incurred so long as overall area under cultivation does not increase.

Recurring annual costs until production - where there is a period between establishment and the production of the first crop, the annual recurring expenses would be tax deductible when incurred notwithstanding that they are incurred to earn profits in future years. For example, an orchardist would be entitled to deduct expenditure on cultivation, pruning, spraying, rates, insurance, depreciation, etc. in the year the expenditure is incurred.

Hail Damage - Compensation payments received by orchardists for hail damage made to fill a gap in the profits are assessable income in the year received.

Bird Netting Used by Grape Growers – The cost of bird netting used by wine growers to protect ripening grapes from birds is deductible if the netting in question only lasts for one year. Otherwise it must be capitalized and depreciated at 25% SL or 33% DV.

Valuation of Hives – Ordinary commercial beekeeper hives are a capital asset and may be depreciated.

Growing crops of fruit, vegetables etc. are a capital asset and are only regarded as trading stock when they are harvested or severed from the ground. Unharvested potatoes may be valued as inventory provided the taxpayer consistently follows this practice.

Valuation of Nursery Stock

- Mature plants - suitable for sale and severed from the land. Valued at cost price, market value or replacement price.
‘Cost’ can be estimated as:
 - ◊ 50% of selling price for plants propagated and grown in pots, trays, or bags.
 - ◊ actual cost for plants bought in from other growers.
 - ◊ nil value for plants which are still growing in the ground.
- Immature plants that are in pots or polyurethane bags may be valued at 10% of selling price. Otherwise they should be valued at nil.
- Pots and containers should be valued at cost price, market value or replacement price. (The lowest of these is normally used.)
- Plants purchased from other growers should be valued at actual cost.

A new trading stock valuation scheme for nursery plants is currently being developed and will apply to the 2001/2002 income year. The following guidelines are reproduced from Tax Information Bulletin Vol. 13 No. 6 June 2001.

Draft Guidelines for Using Discounted Selling price to Value Nursery Stock

It is proposed to allow nursery growers to use an industry-wide category approach in applying the Discounted Selling price (DSP) method to value their nursery stock. DSP is a low compliance cost method of valuing trading stock available to taxpayers with small turnover and some retailers. Most nursery growers should be eligible to use DSP. Eligibility is set out in sections EE 8, EE 9 and EE 10 of the Income Tax Act 1994.

Nursery plants have been divided into seven categories. The DSP of mature plants in each category would be calculated by multiplying the selling price of the plant by the DSP value. The proposed DSP values have been determined by surveying taxpayers within the industry.

Type of Stock	DSP value
Bedding plants	58%
House plants and roses	55%
Liners/plugs	52%
Shrubs and perennials	48%
Trees	42%

Example

A nursery has 500 mature rose plants on hand at balance date. The nursery sells their mature roses to a retailer for \$15 each. The value of that stock for trading purposes is \$4,125 (500 plants x \$15 x 455%).

Immature Plants

It is proposed to calculate the DSP of immature plants by multiplying the DSP of a mature plant by a ratio of the whole years of completed growth to the number of whole years the plant takes to reach maturity. Whole years have been used in the ratio to minimize compliance costs. The fact that most nursery plants are propagated and sold within a 12-month cycle, and balance dates tend to be at times when stock at hand is at its lowest, should prevent significant numbers of plants being valued at nil for trading stock purposes despite the use of whole years in the calculation.

Example

Another nursery has 500 13-month-old flax plants and 300 25-month-old flax plants on hand at balance date. The flax plants take three years to mature and sell for \$10 each.

The value for the purposes of the trading stock rules of the 1-year-old plants would be \$800 (500 plants x \$10 x 48 x 1/3); and the 2-year plants would be \$960 (300 plants x \$10 x 48% x 2/3).

Over-mature plants

It is proposed to value plants past their prime, or whose value drops by multiplying their revised market value by the DSP value. The revised market value is the price at which the grower expects to sell a plant in that condition. The principle underlying this proposal is that because the cost of scrapping plants is very low, the decision to retain over-mature stock must necessarily anticipate an economic return on the stock. Revising down the market value to the anticipated sale price of such stock is, however, appropriate.

On the other hand, plants that are scrapped are effectively no longer part of a grower's business and therefore they should not have any value as trading stock. The particular treatments proposed for different circumstances are illustrated in the following table.

Circumstance	Treatment
The market selling value drops for a particular stock item, or there is no demand for the item, and the stock is scrapped	Nil value
The market selling value drops for a particular stock item, or there is no demand but stock is not scrapped	DSP based on revised market value
Plant is damaged and left in a “bargain area”	DSP based on revised market value
Plant is irrecoverably damaged and is scrapped	Nil value
Plant is over-mature and is scrapped	Nil value
Plant is over-mature and is not scrapped	DSP based on revised market value

Example

A third nursery business has 400 mature but frost-damaged Kahikatea plants at the back of its nursery. Mature plants in prime condition are sold for \$30 each. The frost-damaged items are being offered for sale at \$20. The value of these plants for trading stock purposes is \$3,360 (400 plants x \$20 x 42%).

Questions

Will all growers eligible to use DSP have to use the industry standards?

Nursery growers who prefer to calculate their own discounted selling prices will still be eligible to do so. They will need to keep records that justify their valuations.

How should large growers value their stock?

The DSP method is not available to all taxpayers. These taxpayers will have to value their stock at cost (using a cost valuation method) or at market selling value.

How will plants in the ground be valued?

Plants in the ground are part of the land in which they grow and are thus not trading stock. On the other hand, once they are lifted and ready for sale they become trading stock and any such plants on hand at balance date will be subject to the trading stock rules so will need to be valued.

Horticulturists qualify for the Income Equalisation Scheme (refer *Section 4.8.8*).

4.10 CALCULATING TAXABLE INCOME - FISHING INDUSTRY

The following provisions relate specifically to the fishing industry but readers should also familiarise themselves with *Section 4.8* which includes information about farming generally.

In general 'fish' includes shellfish and crustaceans.

4.10.1 Fishing Quota

The cost of acquiring an Individual Transferable Quota (ITQ's) is non-deductible as it is capital in nature and does not qualify as depreciable intangible property. However, in relation to Transferable Term Quotas (TTQ's), the IRD has accepted that these could be treated as leases and allow a deduction for the amortisation of the amount paid to acquire the TTQ over the unexpired period of the quota.

4.10.2 Income

When valuing a catch, the most practical method is the market value method. As the payout to the skipper and the crew is based on the proceeds of the catch, using the auction price of the day is the most equitable and simplest method.

4.10.3 Expenses Deductibility

Normal rules relate to operating expenditure in relation to fishing vessels i.e. revenue deductible, capital non-deductible but depreciable.

However, there is a special provision allowing survey and other maintenance expenditure to be spread over a four year period.

Expenditure incurred in making repairs or alterations necessary to obtain a certificate of survey under the 'Shipping and Seamen Act 1952' may be deferred in whole or in part and claimed at the written election of the taxpayer in the year of expenditure and up to four succeeding years. The expenditure covers repairs and alterations to the hull, equipment or machinery, and must be ordinarily deductible as 'repairs and maintenance' (i.e. would not be regarded as capital expenditure).

4.10.4 Development Expenditure - Fish Farming

Development expenditure for rock oyster farming, mussel farming, scallop farming, sea-cage salmon farming, and freshwater fish farming, must be capitalised as an asset and depreciated at the rates set out in *Section 4.15.3, Land Improvements: Qualifying Expenditure and Depreciation Rates*, Parts III to VII. Refer also to *Section 4.8.4, Depreciation*.

Prior to the 1992 income year, development expenditures were apportioned between a tax-deductible amount and a depreciable asset (under the same regime as for farmers). Details are contained in previous editions of the Financial Budget Manual.

4.10.5 Income Equalisation Scheme

Taxpayers engaged in the business of fishing are able to make deposits under the income equalisation scheme, and for this purpose 'fishing' includes rock oyster farming, mussel farming, and freshwater fish farming. (Also see *Section 4.8.8*.)

4.11 DISPOSITIONS OF MATRIMONIAL PROPERTY

One spouse may transfer matrimonial property to the other spouse under Section 21 of the Matrimonial Property Act 1976 without giving rise to a subsequent liability for income tax. Transfers of matrimonial assets made by Court order under Section 25 of the Matrimonial Property Act 1976 are totally exempt. (For Estate and Gift Duty provisions refer to *Section 5*.) The legislation basically allows assets to be transferred at book values rather than market values. In essence, the recipient of the matrimonial property is placed in the same position as the person who made the transfer.

Legislation of relevance to the agricultural sector regarding matrimonial transfers include the following:

- Transfers of land are deemed to be at the original purchase price which the taxpayer paid for the land. No profit on sale, needs to be included as part of income.
- Transfers of land with growing timber on it are regarded as a sale of timber, but may be transferred at cost price.
- Livestock is to be transferred at the same value as it appears in the books of the transferor.
- The rights of ownership of an asset will accompany the asset if it is transferred under a matrimonial agreement e.g. depreciation, recovery of depreciation upon disposal, etc.

4.12 FRINGE BENEFIT TAX

Fringe benefit tax (FBT) is a tax paid by employers on non-cash benefits that have been provided to their employees. For example, an employer who provides a company car, low interest loan or other benefits may be required to pay FBT.

4.12.1 General Provisions

Because of the increase in the top personal tax rate from 1 April 2000, the FBT rate was increased from 49% to 64% to prevent high income earners avoiding the 39% tax rate by substituting fringe benefits for salary and wages. As a consequence of the increased FBT rate, employers providing fringe benefits to employees earning less than \$60,000 per annum were over-taxed. Accordingly the multi-rate FBT system was introduced applying to the 2001 and subsequent income years.

This system allows employers to choose to pay FBT either at 64% or at a rate based on the remuneration paid to the employee. An example of the multi-rate calculations set out in Tax Information Bulletin Vol. No. 2000 is set out in 4.12.4.

FBT is payable on a quarterly, or on an annual basis. Employers are eligible to pay FBT on an annual basis where their gross tax deductions or specified superannuation deductions in the preceding income year did not exceed \$100,000 or where they were not employers in the preceding income year.

For each FBT period the employer must complete a return form setting out details of benefits granted and the tax payable, and send the return with payment to the Inland Revenue Department by the 20th of the month following the end of each period. Fringe benefit tax is levied on all employers, irrespective of whether they are taxable entities or are in a tax-loss situation. It is deductible for income tax purposes.

The tax is payable by every employer who directly or indirectly grants a fringe benefit to an employee (which includes a former employee or a prospective employee).

Expenditures incurred in providing fringe benefits must be business-related or incurred in gaining assessable income in order to be tax-deductible i.e. expenditures must follow the normal rules in order to determine if they are tax-deductible.

4.12.2 Definition of 'Fringe Benefit'

A fringe benefit is any benefit received by an employee which consists of:

1. The private use, or the availability for private use, of an employer provided motor vehicle with a gross laden weight of 3500 kg or less.
2. Low interest loans. Current account balances owed to a company by a shareholder-employee can also represent low interest loans and become subject to fringe benefit tax. The reason for the low interest rate is because the recipient is an employee. Loans granted because of a family relationship e.g. father to son, would not be deemed to be a fringe benefit to the employee.
Loans made to employees under an employee share purchase scheme are excluded.
3. Subsidised transport where the employer is a public carrier.

4. Other benefits, such as free, subsidised or discounted goods and services, e.g. free milk, meat, firewood etc. provided to a farm worker. Other fringe benefits, for instance, life insurance or accident insurance premiums paid on behalf of an employee or family, school fees for an employee's children.

There are two general exemptions for benefits in this category:

1. \$75 per employee per quarter; and
2. There is no fringe benefit where an employee purchases an item from the employer at below cost price where the normal retail price does not exceed \$200 and:
 - (a) For sale goods
 - ◇ The difference in price is made up of the discount to the public plus the usual staff discount, and
 - ◇ The price charged to the employee is no less than the smaller of 95% of cost or 95% of the price to the public, and
 - ◇ A reasonable quantity of these sale goods are available to the public.
 - (b) For non-sale goods, the price is not less than 95% of the retail price.

Benefits which are specifically excluded from the FBT regime include:

- Benefits provided and enjoyed on the business premises e.g. sports and recreational facilities, dining facilities, etc.
- Amounts already assessable as income.
- Amounts exempt from income tax.
- Benefits provided in the place of allowances which would be regarded as exempt income.
- Transportation in a vehicle not designed for the carriage of passengers.
- Benefits arising from the discounted price of shares acquired by employees under a share purchase scheme.
- Any benefit that is entertainment except where the employee may choose when to receive the benefit and other than in the course of employment duties.
- Club subscriptions paid by employer, provided it would be ordinarily tax-deductible to the employer.
- Board, lodging and free/subsidised accommodation (as these are already assessable as income).

4.12.3 Value of Fringe Benefits

The rules for calculating the value of fringe benefits are set out in the Income Tax Act.

Motor Vehicles

For vehicles, the value of the fringe benefit per quarter is generally set at 6% of the GST inclusive price (or 6.75% of the GST exclusive price) of the vehicle. This value is reduced to take into account times when the vehicle is not available for private use, or for contributions by the employee. For a quarterly calculation, the fringe benefit formula is:

$$\text{Value of benefit} = \frac{\text{Number of days available for private use (max 90)}}{90} \times Z$$

'Z' is 6% of the cost price of vehicle including GST; or
6% of the market value of vehicle at commencement of lease, including GST; or
6.75% of the cost price of the vehicle excluding GST.

A vehicle is subject to fringe benefit tax if it is available for private use; it does not have to be actually used privately. If a car is made available to an employee, the following can be regarded as days when the vehicle was not available for private use:

- Any day when the employee used the vehicle to leave home to attend an 'emergency call' (defined to be between 6 pm and 6 am on a working weekday, or on any Saturday, Sunday or public holiday, and involves the protection of plant and machinery or health and safety of the employer or a customer of the employer).
- Any day when an employee uses the vehicle for regular business-related trips of at least 24 hours duration.
- Any day on which the vehicle is regarded as a 'work related vehicle' (defined to be a vehicle, other than a car, with gross laden weight less than 3500 kg and which has the employer's name or logo permanently affixed to its exterior).
- The number of days used for private purposes may be determined using a three month test period. The results will form the basis for calculating fringe benefit tax for a three-year period.

Note: Vehicles with a fold-down rear seat may be regarded as a work-related vehicle only if the rear seat is removed or permanently folded down, e.g. welded in the folded down position, and the employer's name is prominently and permanently affixed to the vehicle.

Taxable value = Value of Benefit - Employee Contributions

Employee contributions towards the cost of private use of the vehicle may take the form of:

- Payment of all or part of the running costs.
- Reimbursing employer for the use of the vehicle.
- Where the vehicle is partly owned by the employee, 2.5% of the cost price of the employee's share may be deducted from the value of the benefit calculated as above.

Low Interest Loans

The value of a fringe benefit provided by way of a low interest loan is calculated by deducting the interest actually payable by the employee from the interest calculated at the prescribed rate of interest on the daily balance of the outstanding loan.

Recent interest rates, as prescribed by Regulation, are:

Period	Rate %
1 October 2001 onwards	7.19
1 January 2001 to 30 September 2001	8.50
1 July 2000 to 31 December 2000	8.10
1 April 2000 to 30 June 2000	7.59
1 January 1999 to 31 March 2000	6.50

Subsidized Transport

This category applies to employers who carry on a business that includes transportation of the

general public for hire or reward. The taxable value is the greater of: 25% of highest cost to public for that class of travel, or the amount paid by the employee.

Other Benefits

Taxable value is the value of benefit minus amount paid by employee.

Free or Discounted Goods

- Where the goods are manufactured by the employer, the value of the benefit is the lowest price at which identical goods are sold on an arm's length basis.
- Where the goods are purchased by the employer, the value of the benefit is the cost to the employer.

Note: The value of the benefit is the lower of the cost as determined above or the market value on the day of supply to the employee. If the value cannot be determined by the methods above, then the value is set at normal market price or such amount as the Commissioner may decide.

Free or Discounted Services

The value of the benefit is, in general, the normal price charged for the services to members of the public.

4.12.4 Calculation of Fringe Benefit Tax

Detailed example from Tax Information Bulletin Vol. 12 No. 11 Nov 2000 of how the multi-rate FBT rules will apply

JM Ltd is a close company owned and controlled by the CEO and spouse. The CEO is a major shareholder of the company as he or she owns 40% of the shares of the company. The following schedule shows the fringe benefits provided to the employees of the company on a quarterly basis. The same benefits are provided each quarter.

Fringe benefits received by employees (quarterly filing employer)

	Cash remuneration for year \$	Taxable value (\$) of fringe benefits received per quarter			
		Motor vehicles	Foreign superannuation scheme ¹	Medical insurance ²	Discounted goods ³
CEO	\$80,000 (Includes dividends received of \$5,000 from JM Ltd)	\$1,800*	\$750	\$200	\$100
Employee 1	\$50,000	\$1,800*	\$750	\$200	\$100
Employee 2	\$40,000			\$200	\$100
Employee 3	\$37,500			\$200	\$100
Total benefit		\$3,600	\$1,500	\$800	\$400
				Total value of all benefits	\$6,300

* Based on a \$30,000 vehicle used every day in the quarter (90 days).

¹ The contributions to a foreign superannuation scheme are covered by paragraph (g) of section CI 1 and therefore is a category of benefits.

- ² The medical insurance premiums are covered by paragraph (f) of section CI 1 and therefore is a category of benefits.
- ³ The discounted goods are covered by paragraph (h) of section CI 1 and therefore are a category of fringe benefits.

FBT obligations for the first three quarters of the year

JM Ltd would aggregate the taxable value of all fringe benefits provided in a quarter and then apply either the 49% or 64% flat rate to this quarter. The company elects the 49% rate.

The FBT liability for quarters 1 to 3 is as follows:

Quarter	Taxable value of benefits	FBT rate	FBT payable	Due date for return and payment
Quarter 1	\$6,300	49%	\$3,087	20 July
Quarter 2	\$6,300	49%	\$3,087	20 October
Quarter 3	\$6,300	49%	\$3,087	20 January
Total			\$9,261	

The example ignores the transitional requirement to pay 64% in the first two quarters of the 2000-2001 year.

As JM Ltd has chosen to pay FBT at the 49% rate in any of the first three quarters of the year, it must undertake the multi-rate calculation for the final quarter of the year.

IF JM Ltd decide to attribute these benefits, it could decide only to attribute the medical insurance benefits, the benefits of other kind category or both. If it decided to attribute all these benefits, the annual taxable value of attributed fringe benefits would be:

Employee	Annual taxable value (\$) of attributed fringe benefits received per category				
	Motor vehicles	Superannuation	Medical insurance	Benefits of other kind	Total
CEO	\$7,200	\$3,000	\$800	\$400	\$11,400
Employee 1	\$7,200	\$3,000	\$800	\$400	\$11,400
Employee 2			\$800	\$400	\$1,200
Employee 3			\$800	\$400	\$1,200

Calculation of FBT liability for the final quarter

Example 1

In this example of the calculation, JM Ltd attributes only the benefits that must be attributed the employees who received them, and the other benefits are treated as non-attributed benefits and pooled.

Step 1: Calculate the fringe benefit-inclusive remuneration for each employee who received attributed benefits. The calculation is the cash remuneration minus the tax on the cash remuneration plus the annual value of fringe benefits attributed.

Employee	Cash remuneration	Less tax on the cash remuneration	Plus annual value of fringe benefits attributed	Equals fringe benefit inclusive remuneration
CEO	\$80,000	\$22,470 ¹	\$10,200	\$67,730
Employee 1	\$50,000	\$11,370 ²	\$10,200	\$48,830

Step 2: Calculate the tax on the fringe benefit-inclusive remuneration from step 1 for each employee. Schedule 2, Part B is the tax rates used for this calculation.

Employee	Tax on fringe benefit-inclusive remuneration
CEO	\$28,989.48 ³
Employee 1	\$16,906.71 ⁴

¹ Tax on cash remuneration for CEO is as follows: $(\$38,000 * 19.5\%) + ((\$60,000 - \$38,000) * 33\%) + ((\$80,000 - \$60,000) * 39\%) = \$22,470$.

² Tax on cash remuneration for employee 1 is as follows: $(\$38,000 * 19.5\%) + ((\$50,000 - \$38,000) * 33\%) = \$11,370$.

³ Tax on fringe benefit-inclusive remuneration for CEO is as follows: $(\$8,075 * 17.65\%) + ((\$30,590 - \$8,075) * 26.58\%) + ((\$45,330 - \$30,590) * 49.25\%) + ((\$67,730 - \$45,330) * 63.93\%) = \$28,989.48$.

⁴ Tax on fringe benefit-inclusive remuneration for employee 1 is as follows: $(\$8,075 * 17.65\%) + ((\$30,590 - \$8,075) * 26.58\%) + ((\$45,330 - \$30,590) * 49.25\%) + ((\$48,830 - \$45,330) * 63.93\%) = \$16,906.71$.

Step 3: Calculate the FBT liability of the taxable value of attributed benefits. This calculation is the tax on the fringe benefit-inclusive remuneration (step 2) **less** the tax calculated on the cash remuneration in step 1.

Employee	Tax on fringe benefit inclusive remuneration	Less tax on the cash Remuneration	Equals FBT liability on attributed benefits
CEO	\$28,989.48	\$22,470	\$6,519.48
Employee 1	\$16,906.71	\$11,370	\$5,536.71
Total			\$12,056.19

Step 4: Calculate the FBT on the non-attributed benefits. This amount is calculated by applying the 49% flat rate or the 64% flat rate to the respective pools depending on whether the recipient of the benefit is a major shareholder-employee or an associate.

Pool	Value of non-attributed benefits	FBT rate	FBT liability
Pool 1 (major shareholder-employee a recipient)	\$1,200	64%	\$768
Pool 2 (major shareholder-employee not a recipient)	\$3,600	49%	\$1,764
Total			\$2,532

Step 5: Calculate the final FBT liability for the final quarter. This amount is the total of FBT liability calculated in step 3 (FBT on attributed benefits) **plus** the FBT liability calculated in step 4 (FBT on non-attributed benefits) **less** the FBT assessed in the first three quarters of the year.

FBT liability calculated in step 3 (FBT on attributed benefits)	Plus the FBT liability calculated in step 4 (FBT on non-attributed benefits)	Less the FBT assessed in the first three quarters of the year	FBT liability for the final quarter
\$12,056.19	\$2,532	\$9,261	\$5,327.19

JM Ltd's FBT liability for the final quarter is \$5,327.19. The tax and the return are due 31 May following the end of the quarter.

4.13 GOODS AND SERVICES TAX (GST)

4.13.1 Overview

GST is a broad based tax on consumption, levied on virtually all goods and services (except financial services, domestic accommodation employment contracts and a few other categories) supplied in New Zealand. Exported goods and services are taxable at a rate of zero per cent. GST is imposed on all goods and services imported into New Zealand. The rate of GST is 12.5%.

Only persons who conduct a 'taxable activity' are required to register for GST purposes, and are liable to charge and account for GST. To arrive at the net amount of GST payable to the IRD, businesses ('registered persons') must deduct the GST which they paid on their inputs from the GST charged on their outputs. Thus, although GST is charged at each stage of production and distribution, it is only the final consumer who actually bears the full cost of the GST charged.

Registration

Any person/organisation whose gross turnover from taxable activities is over \$40,000 p.a. must register, and charge and account for GST. Registration is optional for traders having an expected taxable turnover of less than \$40,000 per year.

A taxable activity is any activity which involves the regular supply of goods or services to any other person for a consideration (payment). This is a wide definition which includes businesses, clubs, public and local authorities; but specifically excludes private recreational pursuits or hobbies, employment income, the directorship of a company (treated as employment), and the making of exempt supplies.

The following are exempt from GST:

- The supply of financial services;
- The supply of fine metal;
- The supply of donated goods/services by a non-profit body;
- The supply of residential accommodation in a dwelling; and
- The sale of rental dwellings (which have been used for rental accommodation for a period of five or more years).
- The supply of residential accommodation in a commercial dwelling (e.g. a hotel or hall of residence).

Certain supplies of goods and services are zero-rated. This means that the activities are taxable, but the rate of GST is zero.

Zero-rating occurs if:

- The goods are exported or are supplied outside New Zealand;
- A taxable activity is sold as a going concern to a registered person, i.e. a business or property is sold to another registered person who can continue operating without interruption;
- The services were performed outside New Zealand;

- The services were related to the transportation of passengers or goods to or from New Zealand; or
- The goods supplied consist of newly-refined precious metal.

4.13.2 Returns and Payment of GST

Registered persons must furnish GST returns to the IRD. The standard period for each return is two months. Alternatively taxpayers may choose to make monthly returns, or six monthly returns (but only if the value of taxable supplies does not exceed \$250,000 in the previous 12 months). Businesses with annual turnover greater than \$24 million must complete monthly returns.

The GST return, which details the net amount of GST payable to the IRD (or to be refunded, as the case may be) is due by the last working day of the following month.

There is a penalty for late payment of additional tax to pay. GST unpaid after the due date attracts additional tax at the rate of 10% for the first month, and a further 2% for each extra month the tax remains unpaid.

GST is normally calculated on an invoice (accrual) basis. This means that GST on Sales (outputs) must be included in the GST return covering the month in which the sale is made. GST can be claimed on purchases (inputs) in the same month as they take place. There is an alternative method, the payments (cash) basis. Under the payments basis, GST on outputs is only due if cash has been received. GST inputs can only be included if they have been paid for. This basis may be adopted by:

- Local authorities and non-profit bodies
- Registered persons whose total taxable supplies are less than \$1.3 million.
- Persons who satisfy the Commissioner that it would be appropriate for them to use the payments basis because of the nature, volume and value of their taxable supplies.

A further alternative, the hybrid basis, has been available since the commencement of the 1992 income year. Under this basis, output tax is calculated on an invoice basis and input tax on a payments basis. This method allows businesses to use their cash payments book to calculate input tax.

4.13.3 Calculating Output and Input Tax

Output tax is the GST charged in respect of the supply of goods and services made by the registered person.

Output tax can be calculated using the 'tax fraction' method.

The tax fraction is the amount of GST included in the total sale price. It is calculated by dividing sales by one-ninth (for a GST rate at 12.5%).

The tax fraction of one-ninth is illustrated in this example:

Price including GST = \$112.50

Amount of GST = GST Inclusive amount ÷ 9 = \$112.5 ÷ 9 = \$12.5

Alternatively, the accounting system may separately accumulate the total GST.

Input tax is the GST charged in respect of goods and services supplied to the registered person, provided that tax invoices have been obtained from the supplier. Input tax also includes GST paid on imports. Expenditure on fixed assets and other long term items is included, and GST inputs on these items should also be claimed in the GST return.

Other adjustments for specific circumstances are also required (e.g. bad debts, business use of private assets, private use of business assets, fringe benefits).

Example Calculation

The GST payable by (or refundable to) a registered person for a return period is calculated as in the following example:

Output Tax:

Sales -	
(Total taxable supplies for the period, including GST.)	\$11,000
less	
Zero rated supplies (e.g. direct export sales)	<u>2,000</u>
	<u>\$9,000</u>
GST Content: one ninth	1,000
Plus Adjustments (e.g. GST on goods used privately)	<u>200</u>
<u>Total Output tax</u>	<u>\$1,200</u>

Input Tax:

Purchases/expenses (business related) -	
Total for which tax invoices are held, including GST	<u>\$5,400</u>
GST Content one ninth	600
Plus adjustments(e.g. business use of private vehicle)	<u>50</u>
<u>Total Input tax</u>	<u>\$650</u>
GST PAYABLE (Output Tax less Input Tax)	<u>\$550</u>

(The above example follows the format used in a Goods and Services Tax Return.)

Note: If output tax exceeds the input tax, the difference is paid to the IRD: if output tax is less than the input tax, the difference is refunded to the taxpayer, or it may be used to offset other amounts due to the IRD.

4.13.4 Recording GST

Recording of GST is normally part of the accounting system for a business. Where a cashbook is used, a GST column is normally included. The one ninth tax fraction on items that include GST is analysed into this column. At the end of the GST period, the column total can be transferred direct to the GST return (for businesses registered under 'payments' basis for recording GST).

Other businesses will need to include amounts that have not yet been paid or received, in their GST returns. (This applies to businesses using the 'invoice' basis.)

This situation can be dealt with in a cash book-based system by using a separate 'GST Accrual' book. At the end of the GST period, all invoices on hand which have not been paid should be written into the book. The amount of GST included should be added to the amount shown in the cash book and included in the GST return. At the same time, the total from the GST accruals book at the previous return date should be deducted (since the invoices included will now be recorded, either as payments or in the GST accruals book again).

For example:

	GST inputs from cash book for Jan. and Feb.	\$1,234.56
<i>plus</i>	GST inputs included in GST accruals book for Feb. (invoices on hand but not yet paid at 28 Feb.)	<u>\$502.00</u>
		\$1,736.56
<i>less</i>	GST inputs included in GST accruals book for Dec. (invoices which were on hand but were not yet paid as at 31 Dec.) accounted for in the previous GST return.	<u>\$321.05</u>
	GST inputs on an invoice basis	<u>\$1,415.51</u>

Businesses using more sophisticated accounting systems will generally record GST inputs and outputs in separate ledger clearing accounts.

4.13.5 Tax Invoices

A 'tax invoice' must be held before GST paid on inputs can be claimed as a deduction.

The tax invoice is a document which contains details of the items supplied namely:

- The words 'tax invoice' in a prominent place;
- The name, and registration number of the supplier;
- The name, and address of recipient;
- The date of issue of the tax invoice;
- A description of the goods and services supplied;
- The quantity/volume of the goods and services supplied;
- Either: the value excluding GST, the GST charged, and the GST-inclusive price; or the GST inclusive price and a statement that GST is included in the price.

A slightly simplified invoice may be used where the amount supplied is less than \$200. Details required are:

- The word 'tax invoice';
- Name and registration number of supplier;
- Date of issue of the tax invoice;
- A description of goods and services supplied;
- The GST inclusive price and a statement that GST is included in the price.

No invoice is necessary if the amount supplied is less than \$50.

It is the responsibility of the supplier of the goods/services to issue a tax invoice. However, there is provision to allow the recipient (buyer) of such services to produce the tax invoice, provided the IRD agrees, both parties agree that the supplier will not issue the tax invoice, and that both parties receive a copy of the tax invoice. This provision has significance for the rural sector where it is common for the buyer to create a document which evidences a sale e.g. a freezing works.

Where a registered person obtains second hand goods from a non-registered person, the purchase price is deemed to include a notional amount of GST (calculated by applying the tax fraction to the price paid). Secondhand goods does not include any animals including progeny and domestic animals, or any animals used in a business and primary produce of a farmer (wool, meat, milk).

The purchaser/recipient of second hand goods must maintain records detailing:

- Name and address of supplier;
- Date of acquisition of the goods;
- Description of the goods;
- Quantity or volume of goods;
- Price paid.

4.13.6 Auction Sales

Sales through auctioneers are also subject to special rules, because often it is not known if the sale is taxable or not (i.e. whether the principal is registered). With the principal's agreement, the auctioneer can treat all sales as taxable; the tax collected is either remitted to the IRD by the auctioneer on behalf of an unregistered principal, or passed to a registered principal for him to account for. If there is no agreement to adopt this approach, the sale by auction will only be taxable if the principal concerned is a registered person selling goods in the course of his taxable activity.

It should be noted that the principal is the supplier/seller of the goods.

Auctions may themselves be carried on either a tax-inclusive or tax-exclusive bidding basis - the latter requiring GST to be added to the successful bid. Each auctioneer will decide his individual approach.

The commission charged by the auctioneers is subject to GST if the auctioneer is registered.

4.14 ACCIDENT COMPENSATION LEVY

All persons who suffer injury by accident in New Zealand (and in certain cases, outside New Zealand) and who are employees or self-employed at the time of the accident, have cover under the Earners' Scheme of the Accident Compensation Act. The scheme is funded by a levy (premium) paid by employers, employees and self-employed persons. These levies are a tax-deductible expense. In 1998 the Government changed the levy rates based on a strategy of making ACC a fully funded scheme.

4.14.1 Levies on Employers

For the 2001/2002 income year, employers will pay the:

- residual claims levy based on 2000/2001 earnings and
- employer premium based on 2000/2001 earnings.

The residual claims levy covers the long-term costs of treating and rehabilitating people in the workplace before 30 June 1999 and non-work injuries prior to 1992. Residual claims levy rates for industry categories from 1 April 2002 are set out in Appendix 4.15.7.

The employers premium rates are set annually by Regulation and are calculated based on the amount of earnings paid by employers to their employees. Employers are classified into industry or risk categories for the purposes of setting the premium rates. Employers classification grouping and rates applicable from 1 April 2002 are set out in Appendix 4.15.7.

The maximum amount of employee earnings on which the residual claims levy and employer premium is payable in respect of one employee is \$85,795.

4.14.2 Levies on the Self-Employed

In the 2001/2002 income year, self-employed persons and private domestic workers will pay the:

- residual claims levy
- earner premium
- self-employed work account premium

The residual levy for self-employed is the same as for employers.

The earner premium rates are set annually by Regulation in a manner similar to the employers premium above. Earner premium categories and rates applying from 1 April 2002 are set out in Appendix 4.15.8. There are two parts to the self-employed work account premium; the income benefit portion and the non-income benefit. The income benefit portion is calculated on the self-employed person's net earnings from self-employment in the 2000/2001 income year.

The non-income benefit portion payable is the greater of:

- \$32 or
- an amount calculated on the lesser of the persons self-employed earnings in 2000/2001 income year or \$15,000.

The maximum amount of earnings on which the earner premium and self-employed work account premium is payable is \$85,795. where a self-employed person works for more than an average of 30 hours per week and earns less than the minimum income, the levy and premiums are calculated on the basis of the minimum income. The minimum income levels are:

- for a person aged 20 or over - \$14,770.
- for a person aged under 20 - \$12,026.

If a person earns income both from self-employment and as an employee, ACC premiums will be payable on the self-employed income.

4.14.3 Levies on Salary and Wage Earners

Salary and wage earners pay a premium of \$1.40 excluding G.S.T. (\$1.575 including GST) per \$100 earnings to meet the costs of non work-related accidents. The employees premium is deducted by the employer in the same manner as PAYE deductions.

4.15 TAXATION APPENDICES

4.15.1 Tax Payment Dates

Months for Payment
of Provisional and Terminal Tax

Month of Balance date	Provisional Tax				Terminal Tax
	First Instalment	Second Instalment	Third Instalment		
Oct 01	Feb 01	June 01	Oct 01		Sept 02
Nov 01	March 01	July 01	Nov 01		Oct 02
Dec 01	April 01	Aug 01	Dec 01		Nov 02
Jan 02	May 01	Sept 01	Jan 02		Dec 02
Feb 02	June 01	Oct 01	Feb 02		Jan 03
March 02	July 01	Nov 01	March 02		Feb 03
April 02	Aug 01	Dec 01	April 02		Feb 03
May 02	Sept 01	Jan 02	May 02		Feb 03
June 02	Oct 01	Feb 02	June 02		Feb 03
July 02	Nov 01	March 02	July 02		Feb 03
August 02	Dec 01	April 02	Aug 02		Feb 03
Sept 02	Jan 02	May 02	Sept 02		Feb 03

Note: Payment is due on the 7th day of the appropriate month, payments due in January are due on the 15th day.

The due date for terminal tax payments where the taxpayer has a tax agent with an extension of time arrangement is two months later than that shown in the above table.

4.15.2 Rates of Income Tax

Individuals

2002 and Future Income Years

\$1 to \$38,000	19.5%
Over \$38,001 - \$60,000	33.0%
Over \$60,000	39.0%

Companies

Domestic companies: 33% of taxable income

Overseas companies: 33% of taxable income

Trusts

Trustee income	33 %
Beneficiary income to:	
- minors less than 16 years	
of age at trust balance date	33%
- other beneficiaries	taxpayer's marginal tax rate
Distribution from a non-qualifying trust	45%
Undistributed rents, interest and royalties	
derived by the Maori Trustee	25%
Income from Maori Authorities	25%

Tax Deductions: Withholding payment tax deduction rates

Refer to *Section 4.2.2 PAYE (Pay As You Earn) Tax on Personal Income*.

Tax Codes and Special Tax rates

Refer to *Section 4.2.2 PAYE (Pay As You Earn) Tax on Personal Income*

4.15.3 Land and Aquaculture Development Expenditure Depreciation Rates

Note: For 1993, 1994 and 1995 income years: rate = rate x 1.25.

For 1996 and subsequent years: rate = rate x 1.20.

Description and Rate of Depreciation Diminishing Value (%).

PART A: FARMING AND AGRICULTURE (including HORTICULTURE)

	%
(a) The eradication or extermination of animal or vegetable pests on the land	5
(b) The felling, clearing, destruction, and removal of timber, stumps, scrub or undergrowth on the land:	5
(c) The destruction of weeds or plants detrimental to the land:	5
(d) The preparation of the land for farming or agriculture, including the cultivation and grassing thereof, but excluding expenditure incurred in respect of any of the items specified in paragraph (b):	5
(e) The draining of swamp or low-lying lands:	5
(f) The construction of access roads or tracks to or on the land:	5
(g) The construction of dams, stopbanks, irrigation or stream diversion channels, or other improvements for the purpose of conserving or conveying water for use on the land or for preventing or combating soil erosion:	5
(h) The construction of earthworks, ponds, settling tanks, or other similar improvements primarily for the purpose of the treatment of waste products in order to prevent or combat pollution of the environment:	5
(i) The repair of flood or erosion damage:	5
(j) The sinking of bores or wells for the purpose of supplying water for the use on the land:	5
(k) The construction of aeroplane landing strips to facilitate aerial topdressing of the land:	5
(l) The planting of vines or trees on the land other than trees planted primarily and principally for the purpose of timber production:	10
(m) The construction on the land of fences, including the purchase of wire or wire netting for the purpose of making new or existing fences rabbit proof:	10
(n) The erection on the land of electric-power lines or telephone lines:	10
(o) The construction on the land of feeding platforms, feeding yards, plunge sheep dips, or self-feeding ensilage pits:	10
(p) The construction on the land of supporting frames for growing crops:	10
(q) The construction on the land of structures for shelter purposes.	10

PART B: FORESTRY

	%
(a) The felling, clearing, destruction, or removal of timber, stumps, scrub, or undergrowth on the land in the preparation of the land for the planting of trees on the land:	5
(b) The eradication or extermination, to enable the planting of trees on the land, of animal or vegetable pests on the land:	5
(c) The destruction, to enable the planting of trees on the land, of weeds or plants detrimental to the land:	5
(d) The draining of swamp or low-lying lands in the preparation of the land for the planting of trees on the land:	5
(e) The construction of roads to or on the land, being roads which are formed and wholly or substantially metalled or sealed, and any culverts or bridges that are necessary for the purposes of that construction:	5 (ea.)
The construction of roads to or on the land (including any culverts or bridges that are necessary for the purposes of that construction), being -	
(i) Roads which are formed and partially metalled or sealed; or	
(ii) Roads which are not metalled or sealed, -	
and not being access tracks in respect of which a deduction may be claimed under section DL 1(4) (Temporary access track).	20
(f) The construction of dams, stopbanks, irrigation or stream diversion channels, or other improvements for the purpose of conserving or conveying water for use on the land or for preventing or combating soil erosion:	5
(g) The repair of flood or erosion damage:	5
(h) The sinking of bores or wells for the purpose of supplying water for use on the land:	5
(i) The construction of aeroplane landing strips to facilitate aerial topdressing or disease control work or firefighting on the land:	5
(j) The construction on the land of fences, including the purchase of wire or wire netting for the purpose of making new or existing fences rabbit-proof:	10
(k) The erection on the land of electric power lines or telephone lines:	10

PART C: ROCK OYSTER FARMING

(a) The acquisition and preparation of spatting sticks;	20
(b) The construction and erection of posts, rails, or other structures for the holding of spatting sticks during spat catching and maturing;	20
(c) The construction of fences (including breakwater fences).	20

PART D: MUSSEL FARMING

	%
(a) The acquisition, preparation, and mooring of pontoons, rafts, or other floating structures for collecting spat:	20
(b) The acquisition, mooring, and outfitting of moored floating platforms or longlines from which the collected spat is suspended for subsequent growth:	20
(c) The collecting and depositing of shell or other suitable material on the sea bed to create spatting surfaces.	20

PART E: SCALLOP FARMING

- | | | |
|-----|-------------------------------------------------------------------------------------------------------------------------|----|
| (a) | The acquisition, preparation, and mooring of floating structures for collecting spat: | 20 |
| (b) | The acquisition, mooring, and outfitting of longlines from which the collected spat is suspended for subsequent growth. | 20 |

PART F: SEA-CAGE SALMON FARMING

- | | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| (a) | The acquisition, preparation, and mooring of pontoons, rafts, or other floating structures for securing or protecting cages or other containment vessels: | 20 |
| (b) | The acquisition, preparation, and placing of equipment of structures, including tanks, cages, nets, or other vessels, for the containment of live salmon: | 20 |
| (c) | The acquisition and placing of ropes and buoys used in the breeding or maturing of salmon. | 20 |

PART G: FRESHWATER FISH FARMING

- | | | |
|-----|---------------------------------------------------------------------------------------------------------------------------|----|
| (a) | The drilling of water bores: | 5 |
| (b) | The draining of land or the excavating of sites for ponds, tanks, or races: | 5 |
| (c) | The construction or races, sluices, ponds, settling ponds, or tanks of impervious materials to conduct or contain waters: | 5 |
| (d) | The supply and installation of pipes for water reticulation: | 5 |
| (e) | The construction of walls, embankments, walkways, service paths, or access paths: | 5 |
| (f) | The construction of effluent ponds: | 5 |
| (g) | The supply and installation of baffles or screens for the containing or excluding of fish: | 10 |
| (h) | The construction of fencing on the fish farm. | 10 |

4.15.4 Values for Specified Livestock

National Standard Costs

2001 Income Year

Source: Tax Information Bulletin Vol 131 No.2 (February 2001.)

Kind of Livestock	Category of Livestock	National Standard Cost \$
Sheep	Rising 1 year	17.00
	Rising 2 year	10.70
Dairy Cattle	Purchased bobby calves	156.00
	Rising 1 year	427.00
Beef Cattle	Rising 2 year	77.60
	Rising 1 year	152.00
	Rising 2 year	89.30
Deer	Rising 3 year male non-breeding cattle (all breeds)	89.30
	Rising 1 year	55.60
	Rising 2 year	27.80
Goats (Meat & Fibre)	Rising 1 year	12.70
	Rising 2 year	8.40
Goats (Dairy)	Rising 1 year	81.50
	Rising 2 year	14.00
Pigs	Weaners to 10 weeks of age	71.30
	Growing pigs 10 to 17 weeks of age	53.40

2000 Income Year

Source: Tax information Bulletin Vol 12 No.2 (February 2000.)

Kind of Livestock	Category of Livestock	National Standard Cost \$
Sheep	Rising 1 year	15.80
	Rising 2 year	10.20
Dairy Cattle	Purchased bobby calves	122.00
	Rising 1 year	410.00
Beef Cattle	Rising 2 year	73.60
	Rising 1 year	145.00
	Rising 2 year	84.90
Deer	Rising 3 year male non-breeding cattle (all breeds)	84.90
	Rising 1 year	51.20
	Rising 2 year	25.50
Goats (Meat & Fibre)	Rising 1 year	11.90
	Rising 2 year	8.20
Goats (Dairy)	Rising 1 year	77.60
	Rising 2 year	13.40
Pigs	Weaners to 10 weeks of age	67.70
	Growing pigs 10 to 17 weeks of age	52.00

1999 Income Year:

Source: Tax Information Bulletin Vol 11 No.2 (February 1999)

Kind of Livestock	Category of Livestock	National Standard Cost \$
Sheep	Rising 1 year	15.80
	Rising 2 year	9.90
Dairy Cattle	Purchased bobby calves	115.00
	Rising 1 year	407.00
	Rising 2 years	63.90
Beef Cattle	Rising 1 year	139.00
	Rising 2 year	82.10
	Rising 3 year male non-breeding cattle (all breeds)	82.10
Deer	Rising 1 year	53.60
	Rising 2 year	26.30
Goats (Meat & Fibre)	Rising 1 year	11.80
	Rising 2 year	7.90
Goats (Dairy)	Rising 1 year	76.10
	Rising 2 year	13.60
Pigs	Weaners to 10 weeks of age	68.90
	Growing pigs 10 to 17 weeks of age	54.00

1998 Income Year:

Source: Tax Information Bulletin Vol 10 No 3 (March 1998)

Kind of Livestock	Category of Livestock	National Standard Cost \$
Sheep	Rising 1 year	15.50
	Rising 2 year	9.10
Dairy Cattle	Purchased bobby calves	115.00
	Rising 1 year	464.00
	Rising 2 years	73.40
Beef Cattle	Rising 1 year	131.00
	Rising 2 year	76.40
	Rising 3 year male non-breeding cattle (all breeds)	76.40
Deer	Rising 1 year	50.40
	Rising 2 year	24.80
Goats (Meat & Fibre)	Rising 1 year	11.60
	Rising 2 year	7.30
Goats (Dairy)	Rising 1 year	73.70
	Rising 2 year	13.00
Pigs	Weaners to 10 weeks of age	72.00
	Growing pigs 10 to 17 weeks of age	56.40

National Average Market Values

2001 Income Year

Source: Tax information Bulletin Vol 13, No 6, (June 2001)

Type of Livestock	Classes of Livestock	Average market Values \$ per Head
Sheep	Ewe hoggets	63
	Ram and wether hoggets	61
	Two-tooth ewes	72
	Mixed-age ewes (rising three-year and four-year old ewes)	64
	Rising five-year and older ewes	54
	Mixed-age wethers	46
	Breeding rams	134
Beef cattle	<i>Beef breeds and beef crosses:</i>	
	Rising one-year heifers	423
	Rising two-year heifers	667
	Mixed-age cows	817
	Rising one-year steers and bulls	541
	Rising two-year steers and bulls	800
	Rising three-year and older steers and bulls	992
	Breeding bulls	2,015
Dairy cattle	<i>Friesian and related breeds:</i>	
	Rising one-year heifers	619
	Rising two-year heifers	1,125
	Mixed-age cows	1,313
	Rising one-year steers and bulls	460
	Rising two-year steers and bulls	752
	Rising three-year and older steers and bulls	991
	Breeding bulls	1,302
	<i>Jersey and other dairy cattle:</i>	
	Rising one-year heifers	588
	Rising two-year heifers	1,086
	Mixed-age cows	1,248
	Rising one-year steers and bulls	274
	Rising two-year and older steers and bulls	525
	Breeding bulls	988
Deer	<i>Red deer:</i>	
	Rising one-year hinds	251
	Rising two-year hinds	405
	Mixed-age hinds	450
	Rising one-year stags	279
	Rising two-year and older stags (non-breeding)	481
	Breeding stags	1,414
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising one-year hinds	292
	Rising two-year hinds	455
	Mixed-age hinds	511
	Rising one-year stags	324
	Rising two-year and older stags (non-breeding)	544
	Breeding stags	1,459

Deer	<i>Other breeds:</i>	
	Rising one-year hinds	87
	Rising two-year hinds	140
	Mixed-age hinds	157
	Rising one-year stags	95
	Rising two-year and older stags (non-breeding)	175
	Breeding stags	332
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising one-year does	49
	Mixed-age does	74
	Rising one-year bucks (non-breeding)/wethers	29
	Bucks (non-breeding)/wethers over one year	33
	Breeding bucks	142
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising one-year does	48
	Mixed-age does	105
	Rising one-year bucks (non-breeding)/wethers	33
	Bucks (non-breeding)/wethers over one year	35
	Breeding bucks	191
	<i>Milking(dairy) goats:</i>	
	Rising one-year does	60
	Does over one year	163
	Breeding bucks	100
	Other dairy goats	25
Pigs	Breeding sows less than one year or age	206
	Breeding sows over one year of age	261
	Breeding boars	304
	Weaners less than 10 weeks of age (excluding sucklings)	52
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	87
	Growing pigs ove 17 weeks of age (baconers)	138

2000 Income Year

Source: Tax Information Bulletin Vol 12 No 6 (June 2000)

Type of Livestock	Classes of Livestock	Average market Value \$ per Head
Sheep	Ewe hoggets	48
	Ram and wether hoggets	46
	Two-tooth ewes	60
	Mixed-age ewes (rising three-year and four-year old ewes)	50
	Rising five-year and older ewes	40
	Mixed-age wethers	31
	Breeding rams	131
Beef cattle	<i>Beef breeds and beef crosses:</i>	
	Rising one-year heifers	360
	Rising two-year heifers	569
	Mixed-age cows	642
	Rising one-year steers and bulls	474
	Rising two-year steers and bulls	689
	Rising three-year and older steers and bulls	844
	Breeding bulls	1,631
Dairy cattle	<i>Friesian and related breeds:</i>	
	Rising one-year heifers	400
	Rising two-year heifers	749
	Mixed-age cows	862
	Rising one-year steers and bulls	373
	Rising two-year steers and bulls	621
	Rising three-year and older steers and bulls	805
	Breeding bulls	1,133
	<i>Jersey and other dairy cattle:</i>	
	Rising one-year heifers	374
	Rising two-year heifers	725
	Mixed-age cows	842
	Rising one-year steers and bulls	249
	Rising two-year and older steers and bulls	473
	Breeding bulls	889
Deer	<i>Red deer:</i>	
	Rising one-year hinds	197
	Rising two-year hinds	329
	Mixed-age hinds	384
	Rising one-year stags	243
	Rising two-year and older stags (non-breeding)	362
	Breeding stags	1,850
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising one-year hinds	227
	Rising two-year hinds	363
	Mixed-age hinds	418
	Rising one-year stags	275
	Rising two-year and older stags (non-breeding)	398
	Breeding stags	1,753

Deer	<i>Other breeds:</i>	
	Rising one-year hinds	67
	Rising two-year hinds	117
	Mixed-age hinds	147
	Rising one-year stags	79
	Rising two-year and older stags (non-breeding)	129
	Breeding stags	388
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising one-year does	49
	Mixed-age does	47
	Rising one-year bucks (non-breeding)/wethers	26
	Bucks (non-breeding)/wethers over one year	35
	Breeding bucks	162
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising one-year does	33
	Mixed-age does	51
	Rising one-year bucks (non-breeding)/wethers	35
	Bucks (non-breeding)/wethers over one year	31
	Breeding bucks	162
	<i>Milking(dairy) goats:</i>	
	Rising one-year does	102
	Does over one year	154
	Breeding bucks	163
	Other dairy goats	102
Pigs	Breeding sows less than one year or age	212
	Breeding sows over one year of age	238
	Breeding boars	281
	Weaners less than 10 weeks of age (excluding sucklings)	47
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	92
	Growing pigs ove 17 weeks of age (baconers)	138

National Average Market Values

1999 Income Year

Source: Tax Information Bulletin Vol 11, No 5, (May/June 1999)

Type of Livestock	Classes of Livestock	Average market Value \$ per Head
Sheep	Ewe hoggets	39
	Ram and wether hoggets	36
	Two-tooth ewes	50
	Mixed-age ewes (rising three-year and four-year old ewes)	44
	Rising five-year and older ewes	35
	Mixed-age wethers	26
	Breeding rams	121
Beef cattle	<i>Beef breeds and beef crosses:</i>	
	Rising one-year heifers	237
	Rising two-year heifers	395
	Mixed-age cows	488
	Rising one-year steers and bulls	325
	Rising two-year steers and bulls	489
	Rising three-year and older steers and bulls	628
	Breeding bulls	1,309
Dairy cattle	<i>Friesian and related breeds:</i>	
	Rising one-year heifers	314
	Rising two-year heifers	647
	Mixed-age cows	769
	Rising one-year steers and bulls	268
	Rising two-year steers and bulls	437
	Rising three-year and older steers and bulls	610
	Breeding bulls	863
	<i>Jersey and other dairy cattle:</i>	
	Rising one-year heifers	301
	Rising two-year heifers	647
	Mixed-age cows	775
	Rising one-year steers and bulls	180
	Rising two-year and older steers and bulls	356
	Breeding bulls	712
	<i>Red deer:</i>	
	Rising one-year hinds	143
	Rising two-year hinds	276
	Mixed-age hinds	325
	Rising one-year stags	170
	Rising two-year and older stags (non-breeding)	286
	Breeding stags	1,370
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising one-year hinds	176
	Rising two-year hinds	314
	Mixed-age hinds	372
	Rising one-year stags	198

Deer	Rising two-year and older stags (non-breeding)	325
	Breeding stags	1,334
	<i>Other breeds:</i>	
	Rising one-year hinds	53
	Rising two-year hinds	104
	Mixed-age hinds	120
	Rising one-year stags	63
	Rising two-year and older stags (non-breeding)	119
	Breeding stags	337
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising one-year does	20
	Mixed-age does	26
	Rising one-year bucks (non-breeding)/wethers	22
	Bucks (non-breeding)/wethers over one year	26
	Breeding bucks	120
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising one-year does	18
	Mixed-age does	24
	Rising one-year bucks (non-breeding)/wethers	21
	Bucks (non-breeding)/wethers over one year	24
	Breeding bucks	55
	<i>Milking(dairy) goats:</i>	
	Rising one-year does	150
	Does over one year	253
	Breeding bucks	183
	Other dairy goats	63
Pigs	Breeding sows less than one year or age	150
	Breeding sows over one year of age	198
	Breeding boars	211
	Weaners less than 10 weeks of age (excluding sucklings)	40
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	76
	Growing pigs ove 17 weeks of age (baconers)	109

1998 Income Year

Source: Tax Information Bulletin Vol 10, No 6, (June 1998)

Type of Livestock	Classes of Livestock	Average market Value \$ per Head
Sheep	Ewe hoggets	35
	Ram and wether hoggets	32
	Two-tooth ewes	49
	Mixed-age ewes (rising three-year and four-year old ewes)	42
	Rising five-year and older ewes	34
	Mixed-age wethers	29
	Breeding rams	109
Beef cattle	<i>Beef breeds and beef crosses:</i>	
	Rising one-year heifers	170
	Rising two-year heifers	321
	Mixed-age cows	402
	Rising one-year steers and bulls	249
	Rising two-year steers and bulls	393
	Rising three-year and older steers and bulls	494
	Breeding bulls	1,079
Dairy cattle	<i>Friesian and related breeds:</i>	
	Rising one-year heifers	263
	Rising two-year heifers	517
	Mixed-age cows	651
	Rising one-year steers and bulls	214
	Rising two-year steers and bulls	364
	Rising three-year and older steers and bulls	489
	Breeding bulls	646
	<i>Jersey and other dairy cattle:</i>	
	Rising one-year heifers	253
	Rising two-year heifers	505
	Mixed-age cows	641
	Rising one-year steers and bulls	135
	Rising two-year and older steers and bulls	284
	Breeding bulls	531
Deer	<i>Red deer:</i>	
	Rising one-year hinds	134
	Rising two-year hinds	247
	Mixed-age hinds	314
	Rising one-year stags	165
	Rising two-year and older stags (non-breeding)	281
	Breeding stags	1,436
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising one-year hinds	169
	Rising two-year hinds	286
	Mixed-age hinds	345
	Rising one-year stags	198
	Rising two-year and older stags (non-breeding)	316
	Breeding stags	1,453

Deer	<i>Other breeds:</i>	
	Rising one-year hinds	50
	Rising two-year hinds	100
	Mixed-age hinds	123
	Rising one-year stags	73
	Rising two-year and older stags (non-breeding)	117
	Breeding stags	335
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising one-year does	15
	Mixed-age does	21
	Rising one-year bucks (non-breeding)/wethers	18
	Bucks (non-breeding)/wethers over one year	21
	Breeding bucks	80
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising one-year does	16
	Mixed-age does	21
	Rising one-year bucks (non-breeding)/wethers	19
	Bucks (non-breeding)/wethers over one year	21
	Breeding bucks	93
	<i>Milking(dairy) goats:</i>	
	Rising one-year does	120
	Does over one year	180
	Breeding bucks	280
	Other dairy goats	250
Pigs	Breeding sows less than one year or age	173
	Breeding sows over one year of age	235
	Breeding boars	288
	Weaners less than 10 weeks of age (excluding sucklings)	40
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	89
	Growing pigs ove 17 weeks of age (baconers)	135

4.15.5 Livestock Valuation Option Selection

The Ministry of Agriculture and Fisheries published a technical paper, "The 1992 Livestock Valuation Review/A Farmers' Guide to the Decisions Made by Government" (MAF Policy Technical Paper 92/18) in October 1992. This paper was prepared in advance of the enactment of the livestock valuation regime applying from the 1992/93 and subsequent income years. It was intended as an overview of the proposed livestock valuation provisions for discussion purposes. One of the chapters in that document, Chapter 7: "Checklist for Decision Making", provided a checklist of points to consider when making decisions on the future shape of a farm's livestock valuation system.

The author of the paper, John M King, Senior Analyst with the *Ministry of Agriculture and Fisheries*, revised Chapter 7 in July 1993 in the light of the legislation enacted in the *Income Tax Amendment Act (No 2) 1993* on 1 April 1993 and the livestock values released for the 1992/93 income year. The revised Chapter 7: "Checklist for Decision Making" is reproduced here.

Practical Focus

Checklist for Decision Making - by John M. King, Senior Analyst (Primary Sector), *Ministry of Agriculture and Fisheries*

This section provides a checklist of points which should be considered when making decisions on the future shape of a farm's livestock system. It is presented on a livestock-type by type basis, and according to the current methods being used (current method refers to the valuation method used in 1992). Final decisions can now be made as both the national standard costs (NSCs), and national average market values (NAMVs) for 1993 are known. These decisions must be made before the 1993 tax return is filed.

It is important to remember when any change to the Herd Scheme is being considered, that this scheme has its advantage when stock values are increasing. Increases are treated as capital gains and not subject to income tax. However, when values are falling, these reductions are treated as capital losses are not deductible. This is an advantage compared with other valuation options.

Other points to note concerning the Herd Scheme include:

- (a) livestock can be moved from any other valuation option to the Herd Scheme in any number and any class without notice. In this way, livestock can be progressively moved to the Herd Scheme as and when the farmer considers it appropriate and as it can be afforded;
- (b) from the 1993/94 income year onwards, there will be no spread of any revaluation income generated from a change in valuation option. The five year transitional spread of revaluation income in the 1992/93 income year is the last of the spreading arrangements, and farmers should keep this in mind when evaluating the options;

- (c) if the Herd Scheme is being used to value any livestock, the breeding sires of that type of livestock must be valued on the Herd Scheme. (This prevents double counting where NSC (or self-assessed cost (SAC) is being used);
- (d) any increases in herd numbers in 1992/93 income year may be valued on an alternative valuation option in preference to the Herd Scheme.

All Sheep Currently Valued on Trading Stock Scheme

- (a) Changing to the Herd Scheme from the Trading Stock Scheme will have a tax cost. If all the mature stock are put onto the Herd Scheme, the per head increase in taxable value (based on 1993 herd values) would be:

<i>Class</i>	<i>Write-up to 1993 NAMV \$ per/ head</i>
2 tooth ewes	27.49
MA ewes	29.72
5-6 year ewes	25.47
breeding rams	47.80
MA wethers	23.60

- (b) Even with the five-year transitional spread, and after allowing for possible writedowns in the values of other stock, this tax cost may be too high. Alternatives may be considered including moving only some sheep or some complete classes to the Herd Scheme, and valuing the rest under another option such as NSC. At a later stage, further sheep could be transferred to the Herd Scheme as market conditions and financial situations allow.
- (c) If NSC is considered as possibly the better option, at least for some of the sheep (for whatever reason), several factors should be taken into account. The NSC option will be more suitable for farmers with predominantly home-breeding policies. This will keep their NSC values close to the current (capped) Trading Stock Scheme standard values for most classes. However, for those buying substantial numbers of sheep in the classes to be valued on the NSC option, the values will be much higher due to the inclusion of the purchase cost in the NSC calculation. In such situations, the NSCs may be much closer to herd values, and it may be better to adopt the Herd Scheme for those classes from the start. It is also important to note that an inventory control system will be needed if substantial numbers of mixed age mature sheep are valued under the NSC option. If only the hoggets and/or the two tooth ewes were valued on NSC, then no special inventory system will be required, as these are single age class groups for which a new NSC is struck each year.
- (d) A choice of herd value can be made. The 100% of NAMVs is the default option and will not require a supporting valuation. If the true market value of the livestock concerned is less than NAMVs, then the 90% of NAMV option may be considered. This will reduce the size of the assessable write-up in value from the Trading Stock Scheme to the Herd Scheme. A supporting valuation will be required.

- (e) Another possible option is to use market values. Unless these are very low, there doesn't seem to be any advantage in using market value in preference to the other options.
- (f) SAC could be used. If adopted, it must be applied to any other livestock types being valued under a cost option. It will have a higher compliance cost than the other schemes, and should only be considered if the on-farm production costs are below the national average on a stock unit basis.
- (g) If most of the mature sheep are to be valued under NSC or SAC, a choice of inventory control system will be needed. For many farmers, the average cost inventory system will be suitable, particularly as it fits in easily with Herd Scheme stock. This and the alternative inventory systems such as FIFP should be discussed with chartered accountants.

Sheep Currently Valued on the Herd Scheme

- (a) Where sheep are currently valued on the Herd Scheme, all breeding stock in the mature aged classes will be on that scheme. They will remain on the scheme, although any increase in numbers in any herd class in 1993 or a subsequent income year may be valued under an alternative option.
- (b) Consideration need only be given to those classes of stock not on the Herd Scheme. For most farmers, this will involve only the hoggets which will be mainly on the Trading Stock Scheme now.
- (c) Home breeders with only a few purchases will probably opt to value their hoggets under NSC, although some may take advantage of the transitional spread and move them to the Herd Scheme. Those farmers with substantial purchases of hoggets will find their NSCs closer to herd values and may decide to transfer these stock to the Herd Scheme anyway, or at least split the stock into trading and breeding inventory groups for NSC.
- (d) Farmers who have their sheep on the current Herd Scheme will not require an inventory control system for NSC or SAC for those stock.
- (e) Farmers who are increasing sheep numbers in any herd class in 1992/93 (or any later year) may choose to value these outside the Herd Scheme. Most will opt to use NSC as the alternative. Before making this decision, the cost of the sheep involved under NSC should be compared with the herd values to establish the size of the advantage.
- (f) Farmers should consider the option to change their herd value percentage. In the 1992/93 income year, the transitional spread covers any upward change in the herd value percentage, and is a one-off opportunity to spread the tax cost of such a move. Any change must have a supporting valuation (to be done in May 1993), which will also have a cost.

Sheep Currently Valued at Market Value/Replacement Price

- (a) Some sheep will be valued at market value or replacement price. Those farmers may also decide to change to an alternative scheme in 1992/93 and gain the assistance of the five year transitional spread. Factors to consider are virtually the same as those outlined in the previous two sections.

All cattle currently valued on the Trading Stock Scheme changing to the Herd Scheme from the Trading Stock Scheme will have a big tax cost due to the high values of cattle which are now reflected in the NAMV's following the 1992/93 change in the method by which they are set. If all the mature breeding cattle were to be put in the Herd Scheme the taxable write-up would be as follows at the 1993 herd values.

Class	Beef Cattle to 1993 NAMV \$/head	Friesian to 1993 NAMV \$/head	Jersey to 1993 NAMV \$/head
Rising 2 year heifers	261.20	497.80	417.40
Mixed age cows	386.60	630.50	604.20
Breeding bulls	654.70	454.80	440.70

- (b) If the young cattle and other trading cattle were also considered for movement to the Herd Scheme, the per head taxable write-ups at 1993 herd values would be:

Class	Beef Cattle to 1993 NAMV \$/head	Friesian to 1993 NAMV \$/head	Jersey to 1993 NAMV \$/head
Rsg 1 year heifers	180.50	289.80	247.20
Rsg 1 year steers/bulls	233.30	172.17	120.30
Rsg 2 year steers/bulls	266.40	209.00	168.10
Rsg 3 year steers/bulls	337.50	279.50	NA

- (c) The sheer size of these write-ups may discourage some farmers facing this decision from considering it further. However, it is important that all the factors be weighed up before dismissing a change to the Herd Scheme from the Trading Stock Scheme.
- (d) Beef cattle farmers who are mainly home breeders and who buy only a few cattle each year, may consider moving the breeding cattle to the Herd Scheme, and the young and growing cattle to NSC (or SAC). Although there will be a taxable write-up for those classes moving to the Herd Scheme, there will be a write-down for others between the trading stock standard values and the 1992/93 NSCs. This deductible write-down will offset some of the write-up to the Herd Scheme, as NSCs for homebred beef cattle are less than the current standard values.

- (e) Beef cattle farmers may decide to move only part of the breeding herd to the Herd Scheme, thereby balancing out the write-up against the write-down for the others to NSC. The five year transitional spread of the net revaluation income will ease the tax burden of writing up more to the Herd Scheme than can be offset by any write-down to NSC.
- (f) Dairy farmers currently valuing their cattle on the Trading Stock Scheme have a more difficult choice. The write-up cost to the Herd Scheme for all the cattle may be prohibitive, even with the five year transitional spread of revaluation income. However, if NSC is to be used, a write-up for the rising one year classes to the NSC values will also occur, although much smaller than writing up to the Herd Scheme (e.g. the write-up for rising one year Friesian heifers to the NSC as announced would amount to \$70.80 compared with a write-up of \$298.80 to the Herd Scheme values). The more important factor, however, is that there will be little or no write-up of the older milking stock from Trading Stock standard values to the NSCs, except where a substantial number of older cattle are purchased. Therefore, dairy farmers in this situation may consider that NSC is the more affordable decision, even though there is a deferred tax liability which must be met when part or all of the herd is finally sold.
- (g) Farmers who buy a lot of cattle are faced with a more difficult decision. Under NSC or SAC, their average costs of stock purchases must be included in the NSC or SAC calculation. This will push their end of year costs to higher levels, possibly closer to (or above) NAMVs, depending on the number and cost of purchases. It may be better for these farmers to move those classes of stock in which substantial purchases occur to the Herd Scheme in 1992/93 in preference to the other options. They are facing a write-up anyway under NSC or SAC, and the Herd Scheme may be a preferable alternative.
- (h) Farmers may also decide on a herd value other than 100% of NAMVs. If the market value of their cattle is below this level, they may adopt 90% of NAMV as their herd values. This will reduce the size of the write-up when changing to the Herd Scheme. Note that adoption of the 90% level (or any other level greater than 100% of NAMVs) must be supported by a formal valuation at the farmer's cost.
- (i) Market value or replacement price could be considered as other options. However, they do not appear to have an advantage over the other schemes unless the values of the stock at balance date are below cost.
- (j) If NSC or SAC is to be used for the mature breeding stock, an inventory control system will be needed. The FIFO system may be the best for cattle in the first three years as it will allow for faster phasing out of the current standard values (deductible decrease in value). Thereafter, a change to the average cost system may be considered. This should be discussed with accountants at the time changes are made.
- (k) If SAC is to be used for cattle, it will have to be applied to any other livestock types to be valued under a cost option. Farmers should consider using SAC only if their costs of production are below the national average, as this option will increase compliance costs.

Cattle Currently on the Herd Scheme

- (a) A large number of farmers already have their breeding cattle on the Herd Scheme. For these farmers, a change of herd value ratio will be the main decision relating to the Herd Scheme stock. Any change must be supported by a formal valuation. Any increase in value through selecting a percentage higher than 100% of NAMVs is taxable, but may be spread over five years under the transitional provisions if the change occurs this income year.
- (b) Most of the other classes of cattle (young and growing stock) are currently valued on the Trading Stock Scheme. Where these stock are beef cattle and are mainly homebred, it is likely that the NSC option will result in a reduction of the value of these classes of stock on hand at the end of 1992/93. Farmers in this situation may opt for NSC in order to obtain the tax deduction or to offset any write-up of other livestock types. Other farmers who buy substantial numbers of beef cattle, and dairy farmers will be facing increased end of year values for those stock, and may consider using the Herd Scheme in preference to NSC (or SAC). This decision should be made only after comparison of the write-ups to either NSC or the Herd Scheme.
- (c) Farmers with cattle already on the Herd Scheme will not need an inventory control system. Their financial accounts will appear much the same as now.
- (d) Where herd stock numbers are increasing, farmers may opt to use an alternative valuation option such as NSC for these stock. This will reduce the up-front tax burden in the year of increase if they are derived from homebred sources. There will be less advantage (if any) if these stock are purchased as their purchase cost must be included in NSC. If substantial numbers of breeding herd livestock are valued under another option, an inventory control system will be needed. All of these factors should be weighed up when making a decision to use an alternative option in association with the Herd Scheme.

Cattle Currently Valued at Market Value/Replacement Price

Some cattle will be valued at market value or replacement price. Those farmers may also decide to change to an alternative scheme in 1992/93 and gain the assistance of the five year transitional spread. Factors to consider are virtually the same as those outlined in the previous two sections.

All Deer Currently on the Trading Stock Scheme

- (a) The NAMVs for all classes of deer have moved upwards in the 1992/93 income year. There is now a margin between the 1992 Trading Stock standard values and the NAMVs, and adoption of the Herd Scheme will involve a taxable increase in the value of deer on hand. (In the 1991/92 income year, the standard values and herd values were virtually the same except for breeding stags, and a change to the Herd Scheme in that year would not have produced a significant tax liability.) The write-ups for Red Deer are presented below as a guide to the magnitude of the revaluation income involved:

Red Deer to 1993 NAMV

	<i>\$/head</i>
Rising 1 year hinds	47.00
Rising 2 year hinds	73.00
Mixed age hinds	141.00
Rising 1 year stags	69.00
Rising 2 year and older stags	110.50
Breeding stags	1,504.00

- (b) Some deer farmers will prefer not to join the Herd Scheme in favour of NSC or SAC. It is possible that for the home breeder, NSC will be lower than market or standard values, and a tax deductible write-down will accrue. This will eliminate the unrealised income component of the previous market related values.
- (c) However, deer owners should consider the Herd Scheme as an alternative. There will be some tax costs in joining. However, values will be more market related following the change in method of setting NAMVs. And finally, any future increase in values will not be taxable, although any future decreases in values will not be deductible.
- (d) If NSC (or SAC) is adopted for the mature stock, an inventory control system will be needed. The FIFO system (used for the first three or four years) will allow a faster phase out of the old standard values than will the averaging system. A change to the averaging system may then be considered.
- (e) The NSC system will be best suited to those who are mainly home breeders of deer. Farmers who buy substantial numbers will have their costs under NSC (or SAC) closer to market values, and they may find the Herd Scheme a more suitable option for these classes.
- (f) Farmers selecting the Herd Scheme may opt for a herd value ratio other than 100% of NAMVs. This will require a supporting valuation, and any extra income arising will be eligible for the five year transitional spread.

Currently on the Herd Scheme

- (a) Some deer are currently valued on the Herd Scheme. These will be mainly the mature breeding deer, and they will continue to be treated in the same manner as now.
- (b) Other classes which are currently on the Trading Stock Scheme will have to be valued under another option from the end of the 1992/93 income year. The two main options which will be considered are NSC or the Herd Scheme. The same considerations should be made as are outlined in the previous section.
- (c) Increases in deer numbers in the Herd Scheme classes may be valued under an alternative option such as NSC. This will reduce the up-front tax cost in the year of the increase if they are mainly derived from homebred sources. However, where increases are purchased, there will be less, if any, advantage as the costs under NSC will be closer to herd values.

Deer Currently Valued at Market Value/Replacement Price

A substantial number of deer are currently valued at market value or replacement price. There is no requirement for these farmers to make any changes. However, some deer farmers may take the opportunity of the five year transitional provisions to move to the Herd Scheme. Others may decide to use NSC (or SAC) and remove the unrealised income part of their values. Factors to consider are similar to the points made in the previous two sections.

Change of Schemes for Goats

- (a) Most goats are valued on the Trading Stock Scheme. Fibre and meat producing goats have low values (both standard values and NAMVs). A change from the Trading Stock Scheme to NSC (or SAC) may result in end of year values closest to the 1993 NAMVs (i.e. Herd Scheme values) for some classes.
- (b) Fibre goat owners should carefully consider the relativity of the NSC values compared with the NAMVs. Adoption of either system will result in a write-up although for most goat herds, this will be relatively small compared with potential write-ups for other types of stock. In some instances (particularly where substantial purchases of goats occur), the NSCs may exceed NAMVs. Therefore, the choice between the Herd Scheme and NSC (or SAC) relies more on future market price expectations than on the tax cost of the write-ups from the 1992 standard values.
- (c) Some goat owners currently have NAMVs very much higher than the Trading Stock Scheme standard values. The point to note in considering the scheme change is that the NAMVs and NSCs announced are very close in value. A decision on which of these options to use will be more closely linked to expectations of future market values than to the tax cost on the write-up from the 1992 standard values. (Dairy goats already on the Herd Scheme will continue as at present.)
- (d) Some goats will be currently valued at market value or replacement price. Goat owners may change to another option in 1992/93 and use the five year transitional spread for any income arising from a change. Again, relativity between herd values and NSC should be considered carefully when deciding to change.

Change of Schemes for Pigs

- (a) Most growing pigs are currently valued on the Trading Stock Scheme. For farmers currently using the Trading Stock Scheme, a change to another option will be required at the 1992/93 balance date.
- (b) If the Herd Scheme is considered for the growing pigs, the following increase in end of year values per head would be incurred at 1993 NAMVs (i.e. from the Trading Stock Scheme to the Herd Scheme):

Write-up to 1993 NAMVs

	<i>\$/head</i>
Rising 1 year breeding sows	76.00
Weaners - 10 weeks	18.40
Pigs 10 to 17 weeks	52.10
Pigs over 17 weeks (baconers)	70.00

These are large write-ups, and may pose tax problems on large enterprises even with the five-year transitional spread.

- (c) The main alternative will be to adopt NSC or SAC. Neither will require an inventory control system. (All pigs are deemed mature at one year of age, and farmers will apply the current year cost to all pigs on hand at balance date which are valued under a cost option.) The NSC option requires a little more calculation of cost for pigs than it does for other livestock types, and depends on the farming policy associated with purchase and/or sale of weaners.
- (d) The NSC values for pigs as announced for 1993 are:

Weaners to 10 weeks of age (excluding sucklings)	\$74.10
Growing pigs 10 to 17 weeks of age	\$56.10

In effect, a homebred pig grown through to 17 weeks of age (excluding any purchases) would be valued at \$130.20 if still on hand at the end of the age 1992/93 income year. The effect of any purchased pigs may increase this NSC cost. These NSCs exceed the 1993 NAMVs associated with the Herd Scheme for these two classes of pigs. The 17 weeks NSC (plus purchases) is also applied to older pigs on hand at the end of the income year, and are lower than the 1993 NAMVs. Because of the close relativity of the NSC and NAMVs, the decision to adopt either the Herd Scheme or the NSC option will be based more on the expectation of future market values than on the tax cost of the write-up in 1992/93 from the 1992 Trading Stock Scheme values. Adoption of either scheme will result in a write-up, and owners of pigs should carefully consider which scheme is in the best long term interests of their business. Usually, there will be more growing pigs on hand, and because 1993 NAMVs are lower than NSCs for these classes, the Herd Scheme may be the preferred option.

- (e) A number of pig farmers will prefer to use SAC in preference to NSC. Pig enterprise costing is already well advanced on the more intensive farms, and the conversion of these costings to an average per head cost will be a relatively simple process. By using SAC, the actual costs of pig production will be used in the calculation. These may be substantially lower than the NSC system costs which are to be based on a pre-set production and feeding regime. Compliance costs will increase under SAC, but this will be more than offset where self-assessed pig costings include efficiencies in feed costs and other factors.

Owners of Bailed and Leased Stock

- (a) Owners of bailed or leased stock with long term agreements cannot use either NSC or SAC for these stock. Two special options have now been approved for bailed or leased stock currently valued under the Trading Stock Scheme (at 2 September 1992). In summary, these options allow bailors to value those bailed stock either:
 - (i) at 70% of a three year rolling average of the NAMVs for a current income year and two immediately preceding income years (which is the same treatment as under the old Trading Stock Scheme standard value method); or
 - (ii) at the current 1992 (capped) Trading Stock Scheme values until the end of the 1996/97 income year at which time all stock bailed must be valued on either of the Herd Scheme, market value or replacement price.

These options were included in recognition of the fixed income situation faced by many bailors, and the impact of the tax on unrealised revaluation income. Option (i) allows a continuation of the old Trading Stock Scheme treatment without a time limitation. Option (ii) allows several income years in which the bailor can plan for the write-up or alternatively, reorganise the livestock ownership. Under either option, stock can be moved to the Herd Scheme in any number in any year.

- (b) If the option of the three year rolling average of NAMVs is selected, a write-up in stock values may still occur. This write-up will be eligible for the five year transitional spreading provisions.
- (c) A further amendment has been added to the bailment rules to allow owners of stock which have been placed 'at the use of' in a farming business in which they are a business participant (e.g. a partner) to be excluded from the bailment restrictions. They will be allowed to use NSC (or SAC) providing that the associated farming business also uses NSC (or SAC).
- (d) Other options of the Herd Scheme, market value or replacement price may be considered

Bailed or Leased Stock Which is Not Owned

Farmers who are farming bailed or leased stock which they do not own are free to choose any of the valuation options (except the special options available to bailors). Whichever option or combination of options are used, deficiencies and surpluses of bailed or leased stock will be accounted for under those schemes.

4.15.6 Livestock Taxation Examples

The following samples calculate taxable income for sheep using either the herd scheme (where all sheep are included in the “herd”) or the National Standard Cost scheme using the average cost inventory system. Three consecutive years are illustrates, namely the income years ending 30 June 2001, 2000, and 1999.

Livestock Data

	2001	2000	1999	1998
Ewe hoggets	925	930	925	920
2th ewes	765	755	760	750
3 and 4 year old ewes	1 600	1 560	1500	1 490
5 years and older ewes	575	560	580	500
Rams	<u>72</u>	<u>75</u>	<u>75</u>	<u>70</u>
	<u>3 937</u>	<u>3 880</u>	<u>3840</u>	<u>3 730</u>

Livestock sales	\$56 000	\$54 000	\$52 900
No of Lambs	2 600	2 500	2 490
No of Mixed-age ewes	1 200	1 210	1 195

Livestock purchases	\$9 000	\$8 300	\$8 200
No of mixed-age ewes	450	400	410
No of rams	-	-	-

Natural increase	3 600	3 550	3 510
Deaths and missing	193	200	125

Herd Scheme

Note: All sheep are included in the herd scheme.

2001 Income Year

Opening tax values (opening stock @ ending NAMV)

			\$
Ewe hoggets	930 x	\$63	58 590
2th ewes	755 x	\$72	54 360
3 and 4 year old ewes	1 560 x	\$64	99 840
5 year and older ewes	560 x	\$54	30 240
Rams	75 x	\$134	10 050
			<u>\$253 080</u>

Closing tax values (closing stock @ ending NAMV)

Ewe hoggets	925 x	\$63	58 275
2th ewes	765 x	\$72	55 080
3 and 4 year old ewes	1 600 x	\$64	102 400
5 year and older ewes	575 x	\$54	31 050
Rams	72 x	\$134	9 648
			<u>\$256 453</u>

Taxable income due to changes in herd numbers = \$256 453 - \$253 080
= \$3 373

Check

Herd value 30 June 2001	\$256 453
Herd value 30 June 2000	<u>\$200 165</u>
Increase	<u>\$ 56 288</u>
Increase in capital value of herd (\$253 080 - \$200 165)	\$ 52 915
Increase due to changes in numbers	<u>\$ 3 373</u>
	<u>\$ 56 288</u>

Taxable Income from Sheep

Sales	\$56 000
Less Purchases	<u>9 000</u>
Cash Surplus	47 000
Plus Taxable increase in herd	<u>3 373</u>
Taxable income from sheep	<u>\$50 373</u>

2000 Income Year

Opening tax values (opening stock @ ending NAMV)

			\$
Ewe hoggets	925 x	\$48	44 400
2th ewes	760 x	\$60	45 600
3 and 4 year old ewes	1 500 x	\$50	75 000
5 year and older ewes	580 x	\$40	23 200
Rams	75 x	\$131	<u>9 825</u>
			<u>\$198 025</u>

Closing tax values (closing stock @ ending NAMV)

Ewe hoggets	930 x	\$48	44 640
2th ewes	755 x	\$60	45 300
3 and 4 year old ewes	1 560 x	\$50	78 000
5 year and older ewes	560 x	\$40	22 400
Rams	75 x	\$131	<u>9 825</u>
			<u>\$200 165</u>

Taxable income due to changes in herd numbers = \$200 165 - \$198 025
= \$2 140

Check

Herd value 30 June 2000	\$200 165
Herd value 30 June 1999	<u>\$169 450</u>
Increase	<u>\$ 30 715</u>
Increase in capital value of herd (\$198 025 - \$169 450)	\$ 28 575
Increase due to changes in numbers	<u>\$ 2 140</u>
	<u>\$ 30 715</u>

Taxable Income from Sheep

Sales	\$54 000
Less Purchases	<u>8 300</u>
Cash Surplus	45 700
Plus Taxable increase in herd	<u>2 140</u>
Taxable income from sheep	<u>\$47 840</u>

1999 Income Year

Opening tax values (opening stock @ ending NAMV)

			\$
Ewe hoggets	920 x \$39		35 880
2th ewes	750 x \$50		37 500
3 and 4 year old ewes	1 490 x \$44		65 560
5 year and older ewes	500 x \$35		17 500
Rams	70 x \$121		<u>8 470</u>
			<u>\$164 910</u>

Closing tax values (closing stock @ ending NAMV)

Ewe hoggets	925 x \$39	36 075
2th ewes	760 x \$50	38 000
3 and 4 year old ewes	1 500 x \$44	66 000
5 year and older ewes	580 x \$35	20 300
Rams	75 x \$121	<u>9 075</u>
		<u>\$169 450</u>

Taxable income due to changes in herd number = \$169 450 - \$164 910
= \$4 540

Check

Herd value 30 June 1999	\$169 450
Herd value 30 June 1998	<u>\$156 160</u>
Increase	<u>\$ 13 290</u>
Increase in capital value of herd (\$164 910 - \$156 160)	\$ 8 750
Increase due to changes in numbers	<u>\$ 4 540</u>
	<u>\$ 13 290</u>

Taxable Income from Sheep

Sales	\$52 900
Less Purchases	<u>8 200</u>
Cash Surplus	44 700
Plus Taxable increase in herd	<u>4 540</u>
Taxable income from sheep	<u>\$49 240</u>

National Standard Cost

- Note:** (1) The formulae for calculating livestock values under the national Standard Cost scheme are contained in the Income Tax (National Standard Cost for Livestock). Determination 1994, reprinted as the Appendix to the Tax Information Bulletin, Volume 5 No. 11 (April 1994). The formulae have not been reprinted in this Manual.
- (2) The average cost inventory system is used in the following examples.

2001 Income Year

Livestock values for the 2001 tax year have been calculated as:

Ewe hoggets	\$17.00 per head
Mature sheep	\$24.12 per head

Opening tax value

			\$
Ewe hoggets	930 @	\$15.80	14 694
Mature sheep	295 @	\$23.88	<u>70 446</u>
			<u>\$85 140</u>

Closing tax value

			\$
Ewe hoggets	925 x	\$17 00	15 725
Mature sheep	3 012 x	\$24 12	<u>72 649</u>
			<u>\$88 374</u>

$$\begin{aligned}\text{Increase in stock on hand} &= \$88\,374 - \$85\,140 \\ &= \$3\,234\end{aligned}$$

Taxable income from sheep

Sales	\$56 000
Less Purchases	<u>9 000</u>
Cash surplus	47 000
Plus increase in stock on hand	<u>3 000</u>
Taxable income from sheep	<u>\$50 234</u>

2000 Income Year

Livestock values for the 2000 tax year have been calculated as:

Ewe hoggets	\$15.80 per head
Mature sheep	\$23.88 per head

Opening tax value

			\$
Ewe hoggets	925 @	\$15.80	14 615
Mature sheep	2 915 @	\$2336	<u>68 094</u>
			<u>\$82 709</u>

Closing tax value

			\$
Ewe hoggets	930 x	\$15.80	14 694
Mature sheep	2 950 x	\$23.88	<u>70 446</u>
			<u>\$85 140</u>

Increase in stock on hand = \$85 140 - \$82 709
= \$2 431

Taxable income from sheep

Sales	\$54 000
Less Purchases	<u>8 300</u>
Cash surplus	45 700
Plus increase in stock on hand	<u>2 431</u>
Taxable income from sheep	<u>\$48 131</u>

1999 Income Year

Livestock values for the 1999 tax year have been calculated as:

Ewe hoggets	\$15.80 per head
Mature sheep	\$23.36 per head

Opening tax value

			\$
Ewe hoggets	920 @	\$15.50	14 260
Mature sheep	2 810 @	\$23.00	<u>64 630</u>
			<u>\$78 890</u>

Closing tax value

			\$
Ewe hoggets	925 x	\$15 80	14 615
2th ewes	2 915 x	\$23 36	<u>68 094</u>
			<u>\$82 709</u>

Increase in stock on hand = \$82 709 - \$78 890
= \$3 819

Taxable income from sheep

Sales	\$52 900
Less Purchases	<u>8 200</u>
Cash surplus	44 700
Plus increase in stock on hand	<u>3 819</u>
Taxable income from sheep	<u>\$48 519</u>

4.15.7 Accrual Rules for Expenditure (Deductions for Prepayments)

Expenditures which can be treated as a tax deductible expense when paid, (i.e. the portion that relates to a period after balance date) and the upper limit after which the unexpired portion must be adjusted for are as follows:

Expenditure	Limit on Expenditure
Postage and Stationery	No limit
Subscriptions	
* Journals and periodicals	No limit
* Trade and professional	No limit in total, but the maximum for any one association is \$6,000.
Telephone	Expenditure must not extend further than 2 months past balance date.
Vehicle Registration	No limit
Rents payable for lease of land and or buildings	Must not relate to a period beyond 6 months past balance date and the amount unexpired must not exceed \$23,000 (or may exceed this amount if it relates to a period not more than one month after balance date).
Rents payable for lease or bailment of livestock or bloodstock	Must not relate to a period beyond 6 months past balance date and the amount unexpired must not exceed \$23,000.
Insurance premiums	Must not relate to a period beyond 12 months past balance date and the amount unexpired must not exceed \$12,000.
Maintenance contracts	The contract/warranty must have been purchased as an integral part of the asset(s).
Service contracts	Performance completed within 3 months of balance date and the unexpired portion must not exceed \$23,000.
Consumable aids	Must be in the possession of the taxpayer at balance date and the unexpired portion must not exceed \$58,000.
Periodic charges	Must not relate to a period beyond 12 months past balance date and the unexpired portion must not exceed \$12,000.

Rates	No limit
Advance bookings for travel and accommodation	Maximum \$12,000, must not exceed 6 months after balance date.
Advertising	Maximum \$12,000, 6 months.
Road user charges	No limit
Audit fees	No limit
Accounting costs	No limit

If the above conditions are not met then the expenditures must be treated as an asset (prepayment) and progressively written off as an expense as the goods or services are used or provided.

4.15.8 Accident Compensation Employer Levy Rates Employers – Classification Group

Risk Group	PCU	Premium Classification Unit Description	Premium from April 2001	Levy from April 2002	Residual Claims Levy from April 2002
110 Fruit, Vegetable, grain, Plant & Crop Growing					
	01110	Plant Nurseries	1.31	1.19	0.34
	01120	Cut Flower and Flower Seed Growing	1.31	1.19	0.34
	01130	Vegetable Growing	1.31	1.19	0.34
	01140	Grape Growing	1.31	1.19	0.34
	01150	Apple and pear Growing	1.31	1.19	0.34
	01160	Stone Fruit Growing	1.31	1.19	0.34
	01170	Kiwi Fruit Growing	1.31	1.19	0.34
	01190	Fruit Growing (not elsewhere classified)	1.31	1.19	0.34
	01191	Citrus Growing	1.31	1.19	0.34
	01192	Berry Fruit Growing	1.31	1.19	0.34
	01210	Grain Growing	1.31	1.19	0.34
	01690	Crop and Plant Growing (not elsewhere classified)	1.31	1.19	0.34
	01691	Tobacco and Hops Growing	1.31	1.19	0.34
	01692	Cultivated	1.31	1.19	0.34
	03031	Forest Nursery – Operation or Service	1.31	1.19	0.34
120 Livestock Farming, excluding Poultry					
	01220	Grain-Sheep and Grain-Beef Cattle Farming	2.10	2.42	0.40
	01230	Sheep and Beef Cattle Farming	2.10	2.42	0.40
	01240	Sheep Farming	2.10	2.42	0.40
	01250	Beef Cattle Farming	2.10	2.42	0.40
	01300	Dairy Cattle Farming	2.10	2.42	0.40
	01510	Pig Farming	2.10	2.42	0.40
	01530	Deer Farming	2.10	2.42	0.40
	01590	Livestock Farming (not elsewhere classified)	2.10	2.42	0.40
	01593	Beekeeping	2.10	2.42	0.40
122 Poultry Farming					
	01410	Poultry Farming – Meat	0.89	0.97	0.27
	01420	Poultry Farming – Eggs	0.89	0.97	0.27
130 Agriculture Services & Aquaculture (medium risk group)					
	02190	Services to Agriculture (not elsewhere classified)	1.61	1.95	0.45
	02192	Sphagnum Moss Processing	1.61	1.95	0.45
	03021	Forest Products – Gathering	1.61	1.95	0.45
	03032	Pest Control Service – Forestry (excluding aerial or wild animal control)	1.61	1.95	0.45
	04192	Seaweed, Shellfish, and other Seafood Handgathering (not from a boat)	1.61	1.95	0.45
	04200	Aquaculture	1.61	1.95	0.45
	45110	Wool Storage and Classing	1.61	1.95	0.45
	78650	Pest Control Services	1.61	1.95	0.45
140 Agriculture Services, Hunting & Trapping (high risk group)					
	02130	Aerial Agricultural, Horticultural, Silvicultural, Farming and Pest Control Services	3.20	4.37	0.95
	02200	Hunting and Trapping	3.20	4.37	0.95
	03030	Services to Forestry (excluding tree cutting and felling)	3.20	4.37	0.95

145 Shearing				
02120	Shearing Services	2.68	2.88	0.63
130 Forestry (high risk group)				
03010	Forestry	4.48	5.25	1.71
03020	Logging	4.48	5.25	1.71
170 Ocean & Coastal Fishing				
04110	Rock Lobster Fishing	3.99	4.14	1.00
04120	Prawn Fishing	3.99	4.14	1.00
04130	Fishing – Finfish Trawling (including processing on board)	3.99	4.14	1.00
04140	Squid Jigging (including processing on board)	3.99	4.14	1.00
04150	Line Fishing (including processing on board)	3.99	4.14	1.00
04190	Marine Fishing (not elsewhere classified)	3.99	4.14	1.00
04191	Shellfish and Paua Fishing (not from cultivated beds)	3.99	4.14	1.00
682 Equestrian Activities				
01520	Horse Farming	3.61	5.48	0.44
93110	Horse Racing (not elsewhere classified)	3.61	5.48	0.44
93113	Horse Racing – Harness Racing	3.61	5.48	0.44
93196	Sports and Services to Sports – Horse Rising	2.09	5.48	0.44

4.15.9 Accident Compensation Self-Employed Levy Rates
Self Employed – Classification grouping and rates as at 7 January 2002

Risk Group	PCU	Premium Classification Unit Description	Income Premium from 1 April 2001	Non Income Premium from 1 April 2001	Estimated Average Rate from 1 April 2001	Income Premium from 1 April 2002	Non Income Premium from 1 April 2002	Estimated Average Rate from 1 April 2002	Estimated Average Change
110 Fruit, Vegetable, Grain, Plant & Crop Growing									
110	01110	Plant Nurseries	0.70	0.95	1.32	0.90	1.55	1.84	39%
110	01120	CutFlower and flower Seed Growing	0.70	0.95	1.38	0.89	1.53	1.92	39%
110	01130	Vegetable Growing	0.70	0.95	1.31	0.89	1.53	1.83	40%
110	01140	Grape Growing	0.70	0.95	1.21	0.90	1.54	1.70	40%
110	01150	Apple and Pear Growing	0.70	0.95	1.38	0.88	1.52	1.92	39%
110	01160	Stone Fruit Growing	0.70	0.95	1.40	0.91	1.57	1.95	39%
110	01170	Kiwi fruit Growing	0.70	0.95	1.10	0.90	1.55	1.53	39%
110	01190	Fruit Growing (not elsewhere classified)	0.70	0.95	1.39	0.90	1.54	1.80	40%
110	01191	Citrus Growing	0.70	0.95	1.37	0.90	1.55	1.90	39%
110	01192	Berry Fruit Growing	0.70	0.95	1.46	0.91	1.56	2.03	39%
110	01210	Grain Growing	0.70	0.95	1.18	0.90	1.55	1.65	40%
110	01690	Crop and Plant Growing (not elsewhere classified)	0.70	0.95	1.28	0.90	1.55	1.78	39%
110	01691	Tobacco and Hops Growing	0.70	0.95	1.08	0.90	1.54	1.51	40%
110	01692	Cultivated Mushroom Growing	0.70	0.95	1.13	0.89	1.53	1.58	40%
110	03031	Forest Nursery – Operation or Service	0.70	0.95	1.24	0.91	1.57	1.74	40%
120 Livestock Farming, excluding Poultry									
120	01220	Grain-Sheep and Grain-Beef Cattle Farming	0.78	1.11	1.36	0.94	1.87	1.90	40%
120	01230	Sheep and Beef Cattle Farming	0.78	1.11	1.38	0.94	1.87	1.93	40%
120	01240	Sheep Farming	0.78	1.11	1.43	0.94	1.87	1.99	39%
120	01250	Beef Cattle Farming	0.78	1.11	1.55	0.94	1.87	2.16	39%
120	01300	Dairy Cattle Farming	0.78	1.11	1.28	0.95	1.89	1.80	41%
120	01510	Pig Farming	0.78	1.11	1.36	0.95	1.88	1.90	40%
120	01530	Deer Farming	0.78	1.11	1.46	0.94	1.87	2.04	40%
120	01590	Livestock Farming (not elsewhere classified)	0.78	1.11	1.45	0.94	1.87	2.02	39%
120	01593	Beekeeping	0.78	1.11	1.38	0.95	1.90	1.93	40%
122 Poultry Farming									
122	01410	Poultry Farming – Meat	0.74	0.95	1.20	0.80	1.37	1.45	21%
122	01420	Poultry Farming – Eggs	0.74	0.95	1.31	0.80	1.37	1.59	21%

Risk Group	PCU	Premium Classification Unit Description	Income Premium from 1 April 2001	Non Income Premium from 1 April 2001	Estimated Average Rate from 1 April 2001	Income Premium from 1 April 2002	Non Income Premium from 1 April 2002	Estimated Average Rate from 1 April 2002	Estimated Average Change
130 Agriculture Services & Aquaculture (medium risk group)									
130	02190	Services to Agriculture (Not elsewhere classified)	1.24	1.61	2.21	1.65	2.42	3.07	39%
130	02192	Sphagnum Moss Processing	1.24	1.61	2.49	1.65	2.43	3.36	35%
130	03021	Forest Products – Gathering	1.24	1.61	2.65	1.65	2.43	3.63	37%
130	03032	Pest Control Service – Forestry (excluding aerial or wild animal control)	1.24	1.61	2.19	1.65	2.41	3.04	39%
130	04192	Seaweed, Shellfish, and Other Seafood Handgathering (not from a boat)	1.24	1.61	2.06	1.65	2.43	2.84	38%
130	04200	Aquaculture	1.24	1.61	2.20	1.65	2.42	3.05	39%
130	45110	Wool Storage and Classing	1.24	1.61	2.40	1.65	2.42	3.33	39%
130	78650	Pest Control Services	1.24	1.61	2.25	1.65	2.42	3.12	39%
140 Agriculture Services, Hunting & Trapping (high risk group)									
140	02130	Aerial Agricultural, Horticultural, Silvicultural, Farming and Pest Control Services	2.69	3.26	4.12	2.62	4.67	4.65	13%
140	02200	Hunting and Trapping	2.71	2.50	4.40	2.62	4.67	5.60	27%
140	03030	Services to Forestry (excluding tree cutting and felling)	2.70	2.59	4.24	2.62	4.67	5.36	26%
145	02120	Shearing Services	2.51	2.35	3.86	2.78	3.28	4.61	19%
150 Forestry (high risk group)									
150	03010	Forestry	4.39	3.66	6.51	4.96	6.08	8.43	29%
150	03020	Logging	4.39	3.66	6.37	4.96	6.08	8.22	29%
170 Ocean & Coastal Fishing									
170	04110	Rock Lobster Fishing	3.85	3.55	5.20	4.16	8.25	7.29	40%
170	04120	Prawn Fishing	3.85	3.55	4.94	4.31	8.55	6.91	40%
170	04130	Fishing – Finfish Trawling (including processing on board)	3.85	3.55	5.35	4.09	8.11	7.48	40%
170	40140	Squid Jigging (including processing on board)	3.85	3.55	6.42	3.70	7.34	8.99	40%
170	04150	Line Fishing (including processing on board)	3.85	3.55	5.49	4.03	7.99	7.69	40%
170	04190	Marine Fishing (not elsewhere classified)	3.85	3.55	6.08	3.81	7.56	8.50	40%
170	04191	Shellfish and Paua Fishing (not from cultivated beds)	3.85	3.55	5.36	4.08	8.09	7.50	40%

Risk Group	PCU	Premium Classification Unit Description	Income Premium from 1 April 2001	Non Income Premium from 1 April 2001	Estimated Average Rate from 1 April 2001	Income Premium from 1 April 2002	Non Income Premium from 1 April 2002	Estimated Average Rate from 1 April 2002	Estimated Average Change
682 Equestrian Activities									
682	01520	Horse Farming	3.30	2.66	4.98	4.32	4.25	6.98	40%
682	93110	Horse Racing (not elsewhere classified)	3.30	2.66	5.15	4.30	4.23	7.19	40%
682	93113	Horse Racing – Harness Racing	3.30	2.66	5.46	4.39	4.31	7.65	40%
682	93196	Sports and Services to Sports – Horse Riding	1.87	1.53	2.94	2.48	2.43	4.12	40%

4.15.10 Economic Rates of Depreciation

The economic depreciation rates must be used for all assets acquired in the 1995/96 and subsequent income years.

The following are selected examples of industry and asset categories.

Note: The depreciation rates for NZ new assets may be increased by 20%. Refer *Section 4.8.4*.

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
<i>Agriculture, Horticulture and Aquaculture</i>			
Agricultural and horticultural machinery (not specified)	15.5	12	8
Aeroplanes (top dressing and spraying) and specialised attachments	10	18	12.5
Beekeeping equipment	12.5	15	10
Bush cutters	5	33	24
Chainsaws	3	50	40
Cherry pickers	12.5	15	10
Cleaning machinery	15.5	12	8
Crates (cattle)	10	18	12.5
Crates (pig)	10	18	12.5
Crates (sheep)	10	18	12.5
Cultivators (rotary)	5	33	24
Egg crates	3	50	40
Feeders (forage)	12.5	15	10
Graders (tomatoes)	8	22	15.5
Grading machinery	15.5	12	8
Harness	5	33	24
Harvesters	15.5	12	8
Hay balers	12.5	15	10
Hop kilns	15.5	12	8
Irrigation piping (above ground)	15.5	12	8
Irrigation pumps (above ground)	15.5	12	8
Irrigators (travelling)	10	18	12.5
Isolating transformers	8	22	15.5
Kennel (dogs)	5	33	24
Lawn Mowers (non-domestic type in use by lawn mowing contractors)	5	33	24
Milking machinery	8	22	15.5
Mowers (gang and PTO type)	12.5	15	10
Mulchers (commercial)	4	40	30
Pig feeding plant	8	22	15.5
Pig watering systems	20	9.5	6.5
Plant Trolleys (1995/96 and subsequent income years)	5	33	24

Post hole borers	5	33	24
Post hole borers (PTO type)	12.5	15	10
Poultry equipment	12.5	15	10
Rifles (less than 10,000 rounds per year)	6.66	26	18
Rifles (greater than 10,000 rounds per year)	2	63.5	63.5
Rollers	12.5	15	10
Saddlery	5	33	24
Shearing equipment	8	22	15.5
Shellfish nets	4	40	30
Shellfish ropes	4	40	30
Shellfish stakes	4	40	30
Shotguns (less than 50,000 rounds per year)	6.66	26	18
Shotguns (greater than 50,000 rounds per year)	2	63.5	63.5
Sorting machinery	15.5	12	8
Sprayers (backpack)	5	33	24
Sprayers (mobile crop)	12.5	15	10
Sprayers (mobile weed)	12.5	15	10
Spreads (fertiliser)	12.5	15	10
Tools (hand)	3	50	40
Tools (power)	3	50	40
Tractor drawn implements	15.5	12	8
Tractors (wheeled)	15.5	12	8
Wintering Pads (rubber)	6.66	26	18

Dairy Plant

Dairy plant and equipment (not specified)	15.5	12	8
Blending bins (casein)	15.5	12	8
Butter making machines (except as specified)	15.5	12	8
Butter patting machines	12.5	15	10
Cartoning machines	15.5	12	8
Centrifuges	12.5	15	10
Cheddaring system	15.5	12	8
Cheese maturing boards	6.66	26	18
Cheese plant	15.5	12	8
Churns	15.5	12	8
Clarifiers (whey)	15.5	12	8
Control equipment	8	22	15.5
Conveyors (and crates)	15.5	12	8
Cooling equipment	15.5	12	8
Crating machines	15.5	12	8
Decanters	12.5	15	10
Decrating machines	5.5	12	8
Dryers	15.5	12	8
Effluent plant (excluding SS tanks and screens)	12.5	15	10
Electrodialysis plant (whey)	12.5	15	10
Evaporators (MVR type)	15.5	12	8

Evaporators (TVR type)	20	9.5	6.5
Filling machines (bottle)	15.5	12	8
Flow meters	8	22	15.5
Grinding plant (casein)	15.5	12	8
Heat exchanges	15.5	12	8
Homogenisers	12.5	15	10
Ion exchangers (whey)	12.5	15	10
Metal detectors	8	22	15.5
Mixers	15.5	12	8
Packing machinery (vacuum)	10	18	12.5
Packing machines (butter)	15.5	12	8
Pasteurisers	15.5	12	8
Pipework	15.5	12	8
Powder dryer buildings	15.5	12	8
Presses (butter)	15.5	12	8
Presses (cheese)	15.5	12	8
Refrigeration equipment	15.5	12	8
Retorts	25	7.5	5.5
Scrape surface heat exchangers	12.5	15	10
Separators	12.5	15	10
Sifting plant (casein)	15.5	12	8
Silos	25	7.5	5.5
Tempering bins (casein)	15.5	12	8
Ultrafiltration plant	10	18	12.5
Valves	15.5	12	8
Vats	25	7.5	5.5
Washers (bottle)	15.5	12	8
Washers (boxes)	12.5	15	10
Washers (crate)	12.5	15	10
<i>Fishing</i>			
Fishing equipment (not specified)	20	9.5	6.5
Alternators (auxiliary)	10	18	12.5
Bins (plastic)	5	33	24
Bridles		expense	expense
Compressors (for refrigeration systems)	10	18	12.5
Craypots	2	63.5	63.5
Electronic systems	5	33	24
Engines	12.5	15	10
Floodlight systems	3	50	40
Freezers (Blast)	10	18	12.5
Generators (auxiliary)	10	18	12.5
Hydraulic systems	5	33	24
Icemaking machines	10	18	12.5
Instrumentation (electronic)	5	33	24
Insulation to refrigerated holds	15.5	12	8
Lifejackets	4	40	30

Life rafts	8	22	15.5
Lines (fishing)		expense	expense
Nets (fishing)		expense	expense
Peurulus (baby crayfish) traps (from 1996/97 income year)	1	100	100
Piping	10	18	12.5
Refrigeration systems	10	18	12.5
Safety equipment (other)	4	40	30
Sweeps		expense	expense
Trawl boards	3	50	40
Vessels (Fishing)(non-steel hulled)	20	9.5	6.5
Vessels (Fishing)(steel hulled-over 20m)	15.5	12	8
Vessels (Fishing)(steel hulled-under 20m)	20	9.5	6.5
Winches	10	18	12.5
Wire (trawl)		expense	expense

Buildings and Structures

Buildings and structures (not specified)	50	4	3
Aprons (Airports)	50	4	3
Barns	20	9.5	6.5
Borewells	20	9.5	6.5
Bridges (of block construction)	100	2	1.5
Bridges (of brick construction)	100	2	1.5
Bridges (of concrete construction)	100	2	1.5
Bridges (of stone construction)	100	2	1.5
Bridges (other than of block, brick, concrete and stone)	50	4	3
Buildings (portable)	12.5	15	10
Buildings with pre-fabricated stressed skin insulation panels	33.3	6	4
Buildings with reinforced concrete framing	50	4	3
Buildings with steel or steel and timber framing	50	4	3
Buildings with timber framing	50	4	3
Bunkers (concrete)	20	9.5	6.5
Dams (earth with rock core)	100	2	1.5
Dams (of block construction)	100	2	1.5
Dams (of brick construction)	100	2	1.5
Dams (of concrete construction)	100	2	1.5
Dams (of earth construction without rock core)	50	4	3
Dams (of stone construction)	100	2	1.5
Driveways	50	4	3
Dykes (of earth construction)	50	4	3
Fences	20	9.5	6.5
Fertiliser works	33.3	6	4

Floating piers	33.3	6	4
Fowl houses	20	9.5	6.5
Hot houses (of glass or other construction excluding PVC)	20	9.5	6.5
Hot houses (of PVC or similar construction)	12.5	15	10
Lamp posts (excluding wooden)	25	7.5	5.5
Lamp posts (wooden)	20	9.5	6.5
Manholes	50	4	3
Pig houses	20	9.5	6.5
Reservoirs (above ground, concrete)	50	4	3
Reservoirs (for water, other than concrete or lined earth)	33.3	6	4
Reservoirs (in-ground, concrete)	100	2	1.5
Reservoirs (lined earth)	50	4	3
Retaining walls (concrete)	100	2	1.5
Retaining walls (wooden)	25	7.5	5.5
Roadways	50	4	3
Runways for Airports	33.3	6	4
Saleyards	33.3	6	4
Shade houses (of glass or other construction excluding PVC)	20	9.5	6.5
Shade houses (of PVC or similar construction)	12.5	15	10
Stopbanks (of earth construction)	50	4	3
Swimming pools (in-ground)	33.3	6	4
Tanneries	33.3	6	4
Towers (for floodlights)	25	7.5	5.5
Tunnels (of block construction)	100	2	1.5
Tunnels (of brick construction)	100	2	1.5
Tunnels (of concrete construction)	100	2	1.5
Tunnels (of stone construction)	100	2	1.5
Wharf tarmac	50	4	3
Wharves (of block construction)	100	2	1.5
Wharves (of brick construction)	100	2	1.5
Wharves (of concrete construction)	100	2	1.5
Wharves (of stone construction)	100	2	1.5
Wharves (other than of block, brick, concrete and stone)	50	4	3
<i>Transportation</i>			
Transportation (not specified)	20	9.5	6.5
Aeroplanes (top dressing and spraying) and specialised attachments	10	18	12.5
Barges	20	9.5	6.5
Buses (for transporting people, over 12 seats)	12.5	15	10
Containers Insulated, below 8 m ³	5	33	24
Forklift trucks (8 tonnes and over)	12.5	15	10

Forklift trucks (under 8 tonnes)	10	18	12.5
Helicopters	20	9.5	6.5
Horse floats	20	9.5	6.5
Jetboats	10	18	12.5
Lif jackets and the like	4	40	30
Minibuses (up to and including 12 seats)	5	26	18
Motor launches	20	9.5	6.5
Motor vehicles, (for transporting people, up to and including 12 seats)	5	26	18
Motor vehicles, class NA (for transporting light goods, that have a gross vehicle mass not exceeding 3.5 tonnes)	10	18	12.5
Motor vehicles, class NB (for transporting medium goods, that have a gross vehicle mass exceeding 3.5 tonnes but not exceeding 12 tonnes)	12.5	15	10
Motor vehicles, class NC (for transporting heavy goods, that have a gross vehicle mass exceeding 12 tonnes)	10	18	12.5
Motorcycles	6.66	26	18
Ships (livestock)	20	9.5	6.5
Small boats	15.5	12	18
Special Purpose Vehicles	12.5	15	10
Traction engines	25	7.5	5.5
Tractors (farm type)	15.5	12	8
Trailer, class TC (for transporting medium goods, that have a gross vehicle mass exceeding 3.5 tonnes but not exceeding 10 tonnes)	20	9.5	6.5
Trailer, class TD (for transporting heavy goods, that have a gross vehicle mass exceeding 10 tonnes)	15.5	12	8
Trailer, classes TA and TB (for transporting very light and light goods that have a gross vehicle mass not exceeding 3.5 tonnes (excluding domestic type trailers)	15.5	12	8
Trailer, domestic type (not exceeding 1,000 kg rated carrying capacity)	8	22	15.5
Tyre Chains	3	50	40
Vehicles (road going) (not elsewhere specified)	15.5	12	8

4.15.11 Schedule of Rates of Depreciation

These rates are applicable from the 1993/94 income year.

Note: DV is the Diminishing Value rate.

DV+ is the loaded interim rate of 1.25 times the Diminishing Value rate, where applicable.

SL is the Straight Line rate (or Cost Price method).

SL+ is the loaded interim rate of 1.25 times the Straight Line rate, where applicable.

SV denotes Standard Value as agreed by IRD.

* denotes the option of replacement value, annual revaluation or standard value.

Bold indicates the method to be used for income years 1992-93 and earlier.

	DV	DV+	SL	SL+
Agricultural plant and equipment:				
Tractor drawn implements	10	12.5	7	8.5
Self propelled equipment	20	25	13.5	17.5
Aircraft:				
Fixed wing agricultural aerial work aircraft, including wing attachments for spraying, dusting and distributing seed:	33	41.4	24	31
Helicopters from and including year ended 31 March 1969				
- Airframe, engine, rotor system	25	31.3	17.5	22
- Spraying tanks and attached spraying mechanism	33.3	41.7	24	32
Barns:				
Simple loafing barns	15		10	
Wintering barns all types of construction	15		10	
Beehives	*			
Boats - see Vessels				
Boilers	10	12.5	7	8.5
Bores and wells	*			
Bridges:				
Wooden	3	4	2.5	3.1
Others	2.5	3	2	2.5
Buildings:				
Reinforced concrete, steel or reinforced concrete framed with brick walls or permanent materials.	1		1	
Brick, stone or concrete walled without steel or reinforced concrete frame, stucco, steeltex or other similar construction with wooden frame.	2.5		2	
Wooden framed - not specified elsewhere.	3		2.5	
Buildings (continued):				
Affected by acid fumes - vinegar manufacturers, fertiliser works, bulk fertiliser stores, chemical				

works, tanneries.	6		4	
Portable huts	10		7	
'Temporary Buildings'	10		7	
Bulk lime spreaders	10	12.5	7	8.5
Bulldozers:				
General	20	25	13.5	17.5
Earthmoving contractors	25	31.3	17.5	22
Cars and Trucks:				
Rental	25	31.2	17.5	22
Other	20	25	13.5	17.5
Chainsaws	50	62.5	40	51
Cloches	*			
Compressors:				
Portable	15	18.8	10	13
Fixed	10	12.5	7	8.5
Computers	20	25	13.5	17.5
Concrete mixers	15	18.8	10	13
Effluent Disposal units on farms	10	12.5	7	8.5
or Development expenditure				
Electric test equipment	20	25	13.5	17.5
Electronic scales	20	25	13.5	17.5
Ensilage pits - concrete walls with sliding roof	10	12.5	7	8.5
Feeding out units for cattle - all types of construction	6	7	4	5
Fences:				
Electric	10	12.5	7	8.5
Others		Maintenance		
Fire fighting plant and equipment:				
Reservoir	1	2	1	1.3
Ring main and hydrants	1	2	1	1.3
Breathing apparatus, hoses, pipelines, pumps and diesel engines	10	12.5	7	8.5
Axes, ladders, blankets and fire extinguishers costing less than \$100 each	*			
Fish processing buildings	6		4	
Fish processing plant	15	18.8	10	13
Fishing boats and gear - see Vessels				
Fork lifts	20	25	13.5	17.5
Freezers and cookers for preparation and storage of dog meat	10	12.5	7	8.5
Fowl houses - see poultry				
Frost protection plant - pumping unit, sprinklers, standards and pipelines	10	12.5	7	8.5
		or partly claim as Development exp.		
Fuel tanks:				
Underground		rate as for buildings		
Gas cylinder containers	S.V.			

Gas water heaters	10	12.5	7	8.5
Glasshouses:				
Wooden framed	7		5	
Metal framed	4		3	
PVC tunnel houses	11		7.5	
Grain drying and storage bins	5	6.3	3.5	4
Grain drying plant	10	12.5	7	8.5
Grain - portable silos - see silos				
Hay balers	20	25	13.5	17.5
Header harvesters	20	25	13.5	17.5
Heating systems	10	12.5	7	8.5
Helicopters - see aircraft				
Hop frames	*			
Hop kilns	15	18.8	10	13
Incinerators	15	18.8	10	13
Land Improvements - see Section 4.15.3.				
Lawnmowers:				
Motor driven	20	25	13.5	17.5
Others	10	12.5	7	8.5
Lime spreaders bulk	10	12.5	7	8.5
Livestock saleyards - see saleyards				
Loose tools - no single item to exceed \$250 in cost		See Section 4.8.4		
Milking sheds - all types:				
Built before 1 April 1966	6		4	
Built after 1 April 1966	15		10	
Cost of converting to herringbone design after 1 April 1966 -	15		10	
Rotary Herringbone	10	12.5	7	8.5
Motor vehicles, trucks and scooters	20	25	13.5	17.5
Office equipment and machines	20	25	13.5	17.5
Pallets	*			
Pig houses - all types	15		10	
Pipelines		maintenance		
Plant and machinery - except as elsewhere specified:				
General including agricultural plant and implements but not motor vehicles	10	12.5	7	8.5
Plastic pots for tomato growing	S.V.			
Poultry:				
Battery type cages	10	12.5	7	8.5
Colony houses with wooden frames, iron roofs and netting sides and bases	10	12.5	7	8.5
Fowl houses-steel framed	3		2.5	
-wooden framed	7		5	
Saddlery and harnesses	*			

SECTION 5

GIFT DUTY

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5.1 INTRODUCTION

A duty is a tax imposed on dispositions of property, or in the case of stamp duty, on instruments that convey or lease an interest in property. Gift duty is levied under the Estate and Gift Duties Act 1968 as amended. Estate duty was abolished as from 17 December 1992. Stamp duty was abolished with effect from 20 May 1999.

5.2 GIFT DUTY

5.2.1 Definitions

A gift is any disposition of property made otherwise than by will, without fully adequate consideration in money or money's worth passing to the donor.

A donor is the person making the gift.

A donee is the person receiving the gift.

'Consideration' is what one party in a transaction gives to the other party. The most common form is money, but it could be a promise to do or not to do something, or another form of property. Whatever form is involved, its value is calculated in monetary terms.

A dutiable gift is a gift of property wherever situated that is the subject of a gift made by a donor domiciled in New Zealand or property situated in New Zealand.

'Disposition of property' is used in its widest sense to cover any alienation of property, such as any conveyance, transfer, settlement or assignment, including transactions which diminish the value of one estate to the betterment of another. It includes all gifts of property in New Zealand and all gifts of foreign property if the owner is domiciled in New Zealand.

Gift duty is imposed on dutiable gifts made within a 12 month period.

5.2.2 Valuation of Gift

The value of a gift is the monetary value of the property gifted less any consideration paid. The value of land and buildings is determined by agreement between the donor and the Commissioner of Inland Revenue, or by the Valuer-General. All other property is at market value as assessed by a competent valuer.

The valuation of an annuity or some other form of future interest is calculated using the present value tables in *Section 5.3.2*.

Example:

A friend aged 45 is gifted an annuity of \$4000 for the remainder of her life.

The present value of \$1 p.a. for the remaining life of a female aged 45 is \$15.60540 (from Table B, page E-14).

The value of this gift is \$62,421.60, calculated as \$4,000 x \$15.60540.

It is important that the correct Table is used, for example, Table A to value a life interest for males, or Table D to value an interest for a specified time.

Date of Valuation

A gift (and any consideration) is valued as at the date the gift is made, which is taken to mean the date at which the donor has put himself in the position where the gift cannot be revoked (i.e. the gift is complete).

The completion dates of some of the more common forms of gift are illustrated in the following chart:

Description of Gift	When Complete
Cash	On delivery to the beneficiary.
Cheques	When the cheque has been cashed. (Until then it can be revoked.)
Land	Except where a valid trust is created, the earlier of the dates on which: (a) the instrument of transfer is registered in the Land Transfer Office; or (b) the beneficiary has possession of all the necessary documents to enable the registration to be effected.
Shares	As for land, except that the instrument of transfer is registered by the company.

Chattel	Where there has been effective delivery of the chattels or there has been a deed of assignment.
Forgiveness of debt	Normally the execution of a legally effective deed of release or forgiveness of debt will be required.

Forgiveness of Debt

The forgiving of a debt has been a traditional feature of estate planning. Under the Accruals tax regime applicable to financial arrangements, the amount forgiven could in some circumstances be assessed for income tax in the hands of the person who owes the debt. Proper drafting of a will or gift deed can avoid the situation where gifts become taxable as income. Professional advice is recommended.

No income tax liability arises where the debt is forgiven (whether in a will or otherwise) by a *natural* person in consideration of ‘natural love and affection’ towards the person who owes the debt. Debt forgiveness is confined to family arrangements only.

As from 20 May 1999, amendments to the accruals rules provide that the “natural love and affection” exception applies if a natural person forgives a debt to a trust that is established primarily to benefit natural persons for whom the creditor has natural love and affection or charities.

5.2.3 Exemptions from Gift Duty

A dutiable gift is any gift that is or may be liable to gift duty. Gifts valued at \$27,000 or less are subject to a nil duty rate. However, certain gifts are specifically excluded from gift duty, and include:

1. Small gifts, not exceeding an aggregate of \$2,000 to the same beneficiary in the same calendar year, are not taken into account if they are made in good faith as part of the normal expenditure of the donor.
2. Gifts made towards the maintenance or education of a relative provided the gift is not excessive having regard to the obligation of the donor.
3. Gifts made to charitable bodies.
4. Special exemptions including:
 - certain superannuation elections.
 - contributions by an employer to superannuation fund.
 - certain gratuitous payments from employer to employee.
 - settlement of a joint family home.
 - certain dispositions of matrimonial property see Section 5.2.4.

5.2.4 Dispositions of Matrimonial Property

One spouse may transfer up to 50% of the matrimonial property to the other spouse under Section 21 of the Matrimonial Property Act 1976, without giving rise to a liability for gift duty at the time of transfer. Duty will be payable on the value of property which exceeds a 50% share. Transfers of matrimonial assets between spouses or settlements solely for the benefit of minor or dependent children are exempt if made pursuant to a Court Order under Section 25 of the Matrimonial Property Act 1976.

A copy of the agreement which involves the disposition of matrimonial property must be delivered to the Commissioner within 3 months of the date of disposition.

Matrimonial property includes property which both spouses have directly or indirectly contributed to or made use of. Any other property is called 'separate property' and is not subject to these rules. However spouses can convert separate property to matrimonial property by including it in a Matrimonial Property Agreement.

Example:

Before entering into an agreement to dispose of matrimonial property under Section 21 of the Matrimonial Property Act 1976, property was held as follows:

Husband	-	Farm	\$600,000
	-	Shares	20,000
	-	Bank Account	10,000
Wife	-	Bank Account	\$ 15,000

The couple decided to share ownership of the matrimonial property on a 50:50 basis, and executed an agreement to that effect.

The farm and shares would be regarded as matrimonial property, whereas the two bank accounts could be regarded as separately owned assets (depending on the circumstances).

The end result of the transfers would be:

Husband	-	Bank Account	\$10,000
	-	Farm (half share)	300,000
	-	Shares (half share)	10,000
Wife	-	Bank Account	\$15,000
	-	Farm (half share)	300,000
	-	Shares (half share)	10,000

The wife, as transferee, does not hold more than 50% of the matrimonial property after the transfer. Accordingly, there is no liability for gift duty.

5.2.5 Calculation of Gift Duty

Gift duty does not become payable until the value of any dutiable gifts over any twelve month period exceeds \$27,000 in total value. Rates of Gift Duty are detailed in *Section 5.3.1*.

If more than one dutiable gift is made within a twelve month period, the duty is apportioned to each dutiable gift involved in accordance with the following formula:

$$\frac{a}{b} \times c$$

where:

- (a) is the value of the dutiable gift.
- (b) is the total value of this gift and all other dutiable gifts made within twelve months.
- (c) is the amount of gift duty payable on item (b).

It should be noted that the 12 month period is chosen so as to maximise the amount of gift duty payable.

5.2.6 Aggregation of Gifts

It is important to note that although gift duty is charged on each individual dutiable gift, the rate of gift duty charged on any such individual gift depends upon the aggregation of the value of all dutiable gifts made at the same time or within twelve months subsequently or previously by the same donor (not being a gift exempted from duty, e.g. to a charity). The day the gift is made is included in the twelve month period, so that gifts completed on the same day each year cannot be aggregated. Furthermore, all dutiable gifts are aggregated, irrespective of the identity of the recipient (donee).

Example 1:

Gift to A of \$20,000 made on 1 August 2000.

Gift to B of \$15,000 made on 31 July 2001.

These gifts would be aggregated and be liable to gift duty of \$400, even though each gift is below the exemption level of \$27,000. Note that if the gift to B was made on 1 August 2000, no aggregation would occur as the gifts are not within a twelve month period.

Example 2:

Gift to C of \$30,000 made on 1 August 2000 - duty of \$150 paid.

Gift to D of \$15,000 made on 1 January 2001.

These gifts would be aggregated and duty of \$1,350 on the sum of \$45,000 would be payable, less the \$150 already paid.

5.2.7 Assessment and Collection

If the value of a gift exceeds \$12,000 or if the aggregated value of this gift and all other gifts made over the previous twelve months exceeds \$12,000, a Gift Statement (form IR 635) must be delivered to the Commissioner by the donor within three months of making the gift.

A gift statement must always be filed where property is settled under a matrimonial property agreement - refer *Section 5.2.4*.

If the donor fails to deliver the Gift Statement within the specified time, the donee has an extra month to do so.

If gift duty remains unpaid within six months of making a dutiable gift, a late payment penalty of 5%, followed by a monthly incremental 2% charge, will be added to the unpaid duty. Use of money interest is also charged from that date. Shortfall penalties can also apply to underpayments of gift duty.

The donor is primarily liable to pay gift duty, but the Inland Revenue can obtain payment from the donee. Unless the terms of the gift provide otherwise, the donee is entitled to recover such duty paid from the donor.

5.2.8 Example of Gift Duty Assessment:

Gift made to D on 14 August 2000 of \$22,000

Gift made to E on 18 November 2000 of \$22,000

Gift made to F on 31 October 2001 of \$35,000

Duty assessment is as follows:

14 August 2000

Gift duty payable on gift of \$22,000 to D is zero.

18 November 2000

Gift duty payable on total gifts for previous 12 months (\$44,000) is \$1,250.00

The duty of \$1250 would be apportioned in the following manner:

$$\text{Gift to D } \frac{22,000}{44,000} \times 1250 = \$625.00$$

$$\text{Gift to E } \frac{22,000}{44,000} \times 1250 = \$625.00$$

31 October 2001

Gift duty payable on total gifts for previous 12 months (\$57,000) is \$2,850.

The duty of \$2,850 would be apportioned as follows:

$$\text{Gift to E } \frac{22,000}{57,000} \times 2850 = \$1,100.00$$

less duty already paid 625.00

Duty Payable 475.00

$$\text{Gift to F } \frac{35,000}{57,000} \times 2850 = \$1,750.00$$

Total gift duty payable is:-

Gift to D	\$625
Gift to E (625 + 475)	\$1,100
Gift to F	<u>\$1,750</u>
	<u>\$3,475</u>

5.3 APPENDICES

5.3.1 Rates of Gift Duty

Gifts Made On or After 1 April 1984

Value of dutiable gifts made within 12 months	Amount and Rate of Duty	
\$1 to \$27,000		Nil
\$27,001 to \$36,000	\$0 plus	5% of excess over \$27,000
\$36,001 to \$54,000	\$450 plus	10% of excess over \$36,000
\$54,001 to \$72,000	\$2,250 plus	20% of excess over \$54,000
Over \$72,000	\$5,850 plus	25% of excess over \$72,000

5.3.2 Tables for Valuation of Pensions etc. (part 1)

Table A
Present Value of Annuity or Other Interest for Life
of MALE or Expectant on Death of MALE

Years of Age	Expectation of life of male	Present value of \$1 p.a. on death	Present value of \$1 payable for life	Present value of income on capital of \$1
	Years	\$	\$	\$
0	68.29	19.28531	0.03573	0.96427
1	69.03	19.31080	0.03446	0.96554
2	68.17	19.28117	0.03594	0.96406
3	67.27	19.24885	0.03756	0.96244
4	66.33	19.21357	0.03932	0.96068
5	65.39	19.17665	0.04117	0.95883
6	64.44	19.13758	0.04312	0.95688
7	63.48	19.09622	0.04519	0.95481
8	62.53	19.05334	0.04733	0.95267
9	61.56	19.00747	0.04963	0.95037
10	60.60	18.95988	0.05201	0.94799
11	59.63	18.90948	0.05453	0.94547
12	58.66	18.85664	0.05717	0.94283
13	57.69	18.80124	0.05994	0.94006
14	56.74	18.74441	0.06278	0.93722
15	55.79	18.68488	0.06576	0.93424
16	54.86	18.62391	0.06880	0.93120
17	53.92	18.55941	0.07203	0.92797
18	53.00	18.49340	0.07533	0.92467
19	52.07	18.42335	0.07883	0.92117
20	51.15	18.35084	0.08246	0.91754
21	50.23	18.27503	0.08625	0.91375
22	49.32	18.19663	0.09017	0.90983
23	48.40	18.11378	0.09431	0.90569
24	47.48	18.02716	0.09864	0.90136
25	46.56	17.93660	0.10317	0.89683
26	45.63	17.84085	0.10796	0.89204
27	44.70	17.74068	0.11297	0.88703
28	43.76	17.63473	0.11826	0.88174
29	42.83	17.52505	0.12375	0.87625
30	41.89	17.40904	0.12955	0.87045

Table A continued

	Years	\$	\$	\$
31	40.96	17.28896	0.13555	0.86445
32	40.03	17.16314	0.14184	0.85816
33	39.10	17.03125	0.14844	0.85156
34	38.17	16.89325	0.15534	0.84466
35	37.24	16.74887	0.16256	0.83744
36	36.32	16.59947	0.17003	0.82997
37	35.40	16.44326	0.17784	0.82216
38	34.48	16.27992	0.18600	0.81400
39	33.57	16.11105	0.19445	0.80555
40	32.65	15.93259	0.20337	0.79663
41	31.74	15.74811	0.21259	0.78741
42	30.83	15.55535	0.22223	0.77777
43	29.92	15.35394	0.23230	0.76770
44	29.02	15.14570	0.24271	0.75729
45	28.13	14.92971	0.25351	0.74649
46	27.25	14.70681	0.26466	0.73534
47	26.38	14.47697	0.27615	0.72385
48	25.52	14.24019	0.28799	0.71201
49	24.67	13.99650	0.30018	0.69982
50	23.83	13.74593	0.31270	0.68730
51	23.00	13.48857	0.32557	0.67443
52	22.18	13.22161	0.33892	0.66108
53	21.38	12.95106	0.35245	0.64755
54	20.59	12.67399	0.36630	0.63370
55	19.82	12.39437	0.38028	0.61972
56	19.06	12.10793	0.39460	0.60540
57	18.32	11.81622	0.40919	0.59081
58	17.60	11.52338	0.42383	0.57617
59	16.89	11.22607	0.43870	0.56130
60	16.19	10.92067	0.45397	0.54603
61	15.50	10.60871	0.46959	0.53044
62	14.82	10.29307	0.48535	0.51465
63	14.16	9.97560	0.50122	0.49878
64	13.52	9.65621	0.51719	0.48281
65	12.90	9.34054	0.53297	0.46703
66	12.29	9.01705	0.54915	0.45085
67	11.71	8.70177	0.56491	0.43509
68	11.14	8.38437	0.58078	0.41922
69	10.59	8.06670	0.59666	0.40334
70	10.05	7.75097	0.61245	0.38755

Table A continued

	Years	\$	\$	\$
71	9.53	7.43320	0.62834	0.37166
72	9.01	7.11396	0.64430	0.35570
73	8.51	6.79196	0.66040	0.33960
74	8.03	6.48255	0.67587	0.32413
75	7.57	6.17217	0.69139	0.30861
76	7.13	5.87436	0.70628	0.29372
77	6.71	5.58028	0.72099	0.27901
78	6.31	5.29600	0.73520	0.26480
79	5.92	5.01599	0.74920	0.25080
80	5.55	4.73990	0.76300	0.23700
81	5.19	4.47126	0.77644	0.22356
82	4.84	4.20411	0.78979	0.21021
83	4.51	3.94555	0.80272	0.19728
84	4.19	3.69482	0.81526	0.18474
85	3.89	3.45545	0.82723	0.17277
86	3.60	3.21687	0.83916	0.16084
87	3.33	2.99474	0.85026	0.14974
88	3.07	2.78084	0.86096	0.13904
89	2.83	2.57640	0.87118	0.12882
90	2.60	2.37771	0.88111	0.11889
91	2.39	2.19631	0.89018	0.10982
92	2.19	2.02354	0.89882	0.10118
93	2.01	1.86805	0.90660	0.09340
94	1.84	1.71429	0.91429	0.08571
95	1.68	1.56916	0.92154	0.07846
96	1.53	1.43311	0.92834	0.07166
97	1.39	1.30612	0.93469	0.06531
98	1.27	1.19728	0.94014	0.05986
99	1.15	1.08844	0.94558	0.05442
100	1.05	0.99773	0.95011	0.04989

5.3.3 Tables for Valuation of Pensions etc. (part 2)

Table B
Present Value of Annuity or Other Interest for Life
of FEMALE or Expectant on Death of FEMALE

Years of Age	Expectation of life of female	Present value of \$1 p.a. on death	Present value of \$1 payable for life	Present value of income on capital of \$1
	Years	\$	\$	\$
0	72.43	19.41600	0.02920	0.97080
1	72.90	19.42934	0.02853	0.97147
2	72.05	19.40521	0.02974	0.97026
3	71.12	19.37756	0.03112	0.96888
4	70.18	19.34831	0.03258	0.96742
5	69.23	19.31737	0.03413	0.96587
6	68.26	19.28427	0.03579	0.96421
7	67.30	19.24994	0.03750	0.96250
8	66.33	19.21357	0.03932	0.96068
9	65.35	19.17505	0.04125	0.95875
10	64.37	19.13464	0.04327	0.95673
11	63.39	19.09226	0.04539	0.95461
12	62.41	19.04779	0.04761	0.95289
13	61.42	19.00067	0.04997	0.95003
14	60.44	18.95172	0.05241	0.94759
15	59.47	18.90092	0.05495	0.94505
16	58.50	18.84765	0.05762	0.94238
17	57.53	18.79180	0.06041	0.93959
18	56.56	18.73325	0.06334	0.93666
19	55.60	18.67252	0.06637	0.93363
20	54.64	18.60887	0.06956	0.93044
21	53.67	18.54147	0.07293	0.92707
22	52.71	18.47156	0.07642	0.92358
23	51.75	18.39830	0.08008	0.91992
24	50.79	18.32154	0.08392	0.91608
25	49.83	18.24110	0.08795	0.91205
26	48.87	18.15682	0.09216	0.90784
27	47.92	18.06947	0.09653	0.90347
28	46.96	17.97698	0.10115	0.89885
29	46.01	17.88108	0.10595	0.89405
30	45.06	17.78043	0.11098	0.88902

Table B continued

	Years	\$	\$	\$
31	44.11	17.67502	0.11625	0.88375
32	43.16	17.56461	0.12177	0.87823
33	42.21	17.44898	0.12755	0.87245
34	41.26	17.32787	0.13361	0.86639
35	40.32	17.20238	0.13988	0.86012
36	39.38	17.07102	0.14645	0.85355
37	38.44	16.93352	0.15332	0.84668
38	37.50	16.78959	0.16052	0.83948
39	36.57	16.64058	0.16797	0.83203
40	35.64	16.48470	0.17576	0.82424
41	34.71	16.32162	0.18392	0.81608
42	33.79	16.15293	0.19235	0.80765
43	32.88	15.97856	0.20107	0.79893
44	31.97	15.79638	0.21018	0.78982
45	31.06	15.60540	0.21973	0.78072
46	30.17	15.40991	0.22950	0.77050
47	29.29	15.20817	0.23959	0.76041
48	28.41	14.99774	0.25011	0.74989
49	27.54	14.78078	0.26096	0.73904
50	26.68	14.55732	0.27213	0.72787
51	25.82	14.32456	0.28377	0.71623
52	24.98	14.08804	0.29560	0.70440
53	24.14	13.83998	0.30800	0.69200
54	23.31	13.58470	0.32077	0.67923
55	22.49	13.32253	0.33387	0.66613
56	21.67	13.05019	0.34749	0.65251
57	20.87	12.77449	0.36128	0.63872
58	20.08	12.49093	0.37545	0.62455
59	19.30	12.19839	0.39008	0.60992
60	18.53	11.89933	0.40503	0.59497
61	17.77	11.59402	0.42030	0.57970
62	17.02	11.28238	0.43588	0.56412
63	16.28	10.95993	0.45200	0.54800
64	15.56	10.63620	0.46819	0.53181
65	14.84	10.30270	0.48487	0.51513
66	14.14	9.96598	0.50170	0.49830
67	13.45	9.62085	0.51896	0.48104
68	12.77	9.27160	0.53642	0.46358
69	12.11	8.92159	0.55392	0.44608
70	11.46	8.56256	0.57187	0.42813

Table B continued

	Years	\$	\$	\$
71	10.83	8.20702	0.58965	0.41035
72	10.22	7.85036	0.60748	0.39252
73	9.63	7.49459	0.62527	0.37473
74	9.07	7.15080	0.64246	0.35754
75	8.53	6.80486	0.65976	0.34024
76	8.01	6.46966	0.67652	0.32348
77	7.52	6.13833	0.69308	0.30692
78	7.05	5.82022	0.70899	0.29101
79	6.59	5.49499	0.72525	0.27475
80	6.16	5.18940	0.74053	0.25947
81	5.74	4.88168	0.75592	0.24408
82	5.34	4.58319	0.77084	0.22916
83	4.96	4.29814	0.78509	0.21491
84	4.59	4.00823	0.79959	0.20041
85	4.24	3.73400	0.81330	0.18670
86	3.91	3.47191	0.82640	0.17360
87	3.60	3.21687	0.83916	0.16084
88	3.31	2.97829	0.85109	0.14891
89	3.04	2.75616	0.86219	0.13781
90	2.78	2.53320	0.87334	0.12666
91	2.54	2.32588	0.88371	0.11629
92	2.32	2.13584	0.89321	0.10679
93	2.12	1.96307	0.90185	0.09815
94	1.93	1.79592	0.91020	0.08980
95	1.75	1.63265	0.91837	0.08163
96	1.59	1.48753	0.92562	0.07438
97	1.45	1.36054	0.93197	0.06803
98	1.31	1.23356	0.93832	0.06168
99	1.19	1.12472	0.94376	0.05624
100	1.07	1.01587	0.94921	0.05079

5.3.4 Tables for Valuation of Pensions etc. (part 3)

Table C
Present Value of Annuity or Other Interest for Widowhood
or Expectant on Termination of Widowhood

Years of Age	Expectation of widowhood	Present value of \$1 p.a. for widowhood	Present value of \$1 payable on termination of widowhood	Present value of income on capital of \$1 for widowhood
Years	Years	\$	\$	\$
Up to 20	7.5	6.12479	0.69376	0.30624
21	8.2	6.59213	0.67039	0.32961
22	8.9	7.04336	0.64783	0.35217
23	9.8	7.59895	0.62005	0.37995
24	10.7	8.13101	0.59344	0.40656
25	11.5	8.58483	0.57076	0.42924
26	12.2	8.96931	0.55153	0.44847
27	12.8	9.28751	0.53562	0.46438
28	13.3	9.54509	0.52275	0.47725
29	13.7	9.74712	0.51264	0.48736
30	14.1	9.94674	0.50266	0.49734
31	14.4	10.09104	0.49545	0.50455
32	14.9	10.33156	0.48342	0.51658
33	15.3	10.51709	0.47415	0.52585
34	15.8	10.74614	0.46269	0.53731
35	16.3	10.96866	0.45157	0.54843
36	16.9	11.23044	0.43848	0.56152
37	17.6	11.52338	0.42383	0.57617
38	18.2	11.76874	0.41156	0.58844
39	18.8	12.00617	0.39969	0.60031
40	19.5	12.27376	0.38631	0.61369
41	20.3	12.56989	0.37151	0.62849
42	20.9	12.78526	0.36074	0.63926
43	21.4	12.95789	0.35211	0.64789
44	21.8	13.09463	0.34527	0.65473
45	22.0	13.16300	0.34185	0.65815
46	22.1	13.19556	0.34022	0.65978
47	22.2	13.22811	0.33859	0.66141
48	22.2	13.22811	0.33859	0.66141
49	22.1	13.19556	0.34022	0.65978
50	22.0	13.16300	0.34185	0.65815

Table C continued

Years	Years	\$	\$	\$
51	21.8	13.09463	0.34527	0.65473
52	21.6	13.02626	0.34869	0.65131
53	21.3	12.92370	0.35381	0.64619
54	20.9	12.78526	0.36074	0.63926
55	20.5	12.64168	0.36792	0.63208
56	20.0	12.46221	0.37689	0.62311
57	19.6	12.31145	0.38443	0.61557
58	19.1	12.12301	0.39385	0.60615
59	18.5	11.88745	0.40563	0.59437
60	18.0	11.68959	0.41552	0.58448
61	17.4	11.44028	0.42799	0.57201
62	16.8	11.18681	0.44066	0.55934
63	16.1	10.88140	0.45593	0.54407
64	15.4	10.56290	0.47186	0.52814
65	14.6	10.18725	0.49064	0.50936

For widows 66 years of age or over, the expectations of life and widowhood are deemed to be identical, and Table B applies for both purposes.

5.3.5 Tables for valuation of pensions etc. (part 4)

Table D
Present Value of Annuity or Other Interest for Period
Other Than Life or Expectant on Event Other Than Death

Years	Present value of \$1 per annum for period	Present value of \$1 payable after period	Present value of income on capital of \$1 for period
	\$	\$	\$
1	0.95238	0.95238	0.04762
2	1.85941	0.90703	0.09297
3	2.72325	0.86384	0.13616
4	3.54595	0.82270	0.17730
5	4.32948	0.78353	0.21647
6	5.07569	0.74622	0.25378
7	5.78637	0.71068	0.28932
8	6.46321	0.67684	0.32316
9	7.10782	0.64461	0.35539
10	7.72173	0.61391	0.38609
11	8.30641	0.58468	0.41532
12	8.86325	0.55684	0.44316
13	9.39357	0.53032	0.46968
14	9.89964	0.50507	0.49493
15	10.37966	0.48102	0.51898
16	10.83777	0.45811	0.54189
17	11.27407	0.43630	0.56370
18	11.68959	0.41552	0.58448
19	12.08532	0.39573	0.60427
20	12.46221	0.37689	0.62311
21	12.82115	0.35894	0.64106
22	13.16300	0.34185	0.65815
23	13.48857	0.32557	0.67443
24	13.79864	0.31007	0.68993
25	14.09394	0.29530	0.70470
26	14.37518	0.28124	0.71876
27	14.64303	0.26785	0.73215
28	14.89813	0.25509	0.74491
29	15.14107	0.24295	0.75705
30	15.37245	0.23138	0.76862

Table D continued

	\$	\$	\$
31	15.59281	0.22036	0.77964
32	15.80268	0.20987	0.79013
33	16.00255	0.19987	0.80013
34	16.19290	0.19035	0.80965
35	16.37419	0.18129	0.81871
36	16.54685	0.17266	0.82734
37	16.71129	0.16444	0.83556
38	16.86789	0.15661	0.84339
39	17.01704	0.14915	0.85085
40	17.15909	0.14205	0.85795
41	17.29437	0.13528	0.86472
42	17.42321	0.12884	0.87116
43	17.54591	0.12270	0.87730
44	17.66277	0.11686	0.88314
45	17.77407	0.11130	0.88870
46	17.88007	0.10600	0.89400
47	17.98101	0.10095	0.89905
48	18.07716	0.09614	0.90386
49	18.16872	0.09156	0.90844
50	18.25592	0.08720	0.91280
51	18.33898	0.08305	0.91695
52	18.41807	0.07910	0.92090
53	18.49340	0.07533	0.92467
54	18.56514	0.07174	0.92826
55	18.63347	0.06833	0.93167
56	18.69854	0.06507	0.93493
57	18.76052	0.06197	0.93803
58	18.81954	0.05902	0.94098
59	18.87575	0.05621	0.94379
60	18.92929	0.05354	0.94646
61	18.98027	0.05099	0.94901
62	19.02883	0.04856	0.95144
63	19.07508	0.04625	0.95375
64	19.11912	0.04404	0.95596
65	19.16107	0.04195	0.95805
66	19.20102	0.03995	0.96005
67	19.23907	0.03805	0.96195
68	19.27530	0.03623	0.96377
69	19.30981	0.03451	0.96549
70	19.34268	0.03287	0.96713

Table D continued

	\$	\$	\$
71	19.37398	0.03130	0.96870
72	19.40379	0.02981	0.97019
73	19.43218	0.02839	0.97161
74	19.45922	0.02704	0.97296
75	19.48497	0.02575	0.97425
76	19.50949	0.02453	0.97547
77	19.53285	0.02336	0.97664
78	19.55510	0.02225	0.97775
79	19.57628	0.02119	0.97881
80	19.59646	0.02018	0.97982
81	19.61568	0.01922	0.98078
82	19.63398	0.01830	0.98170
83	19.65141	0.01743	0.98257
84	19.66801	0.01660	0.98340
85	19.68382	0.01581	0.98419
86	19.69887	0.01506	0.98494
87	19.71321	0.01434	0.98566
88	19.72687	0.01366	0.98634
89	19.73987	0.01301	0.98699
90	19.75226	0.01239	0.98761
91	19.76406	0.01180	0.98820
92	19.77529	0.01124	0.98876
93	19.78599	0.01070	0.98930
94	19.79618	0.01019	0.98981
95	19.80589	0.00971	0.99029
96	19.81513	0.00924	0.99076
97	19.82394	0.00880	0.99120
98	19.83232	0.00838	0.99162
99	19.84030	0.00798	0.99202
100	19.84791	0.00760	0.99249

SECTION 6

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