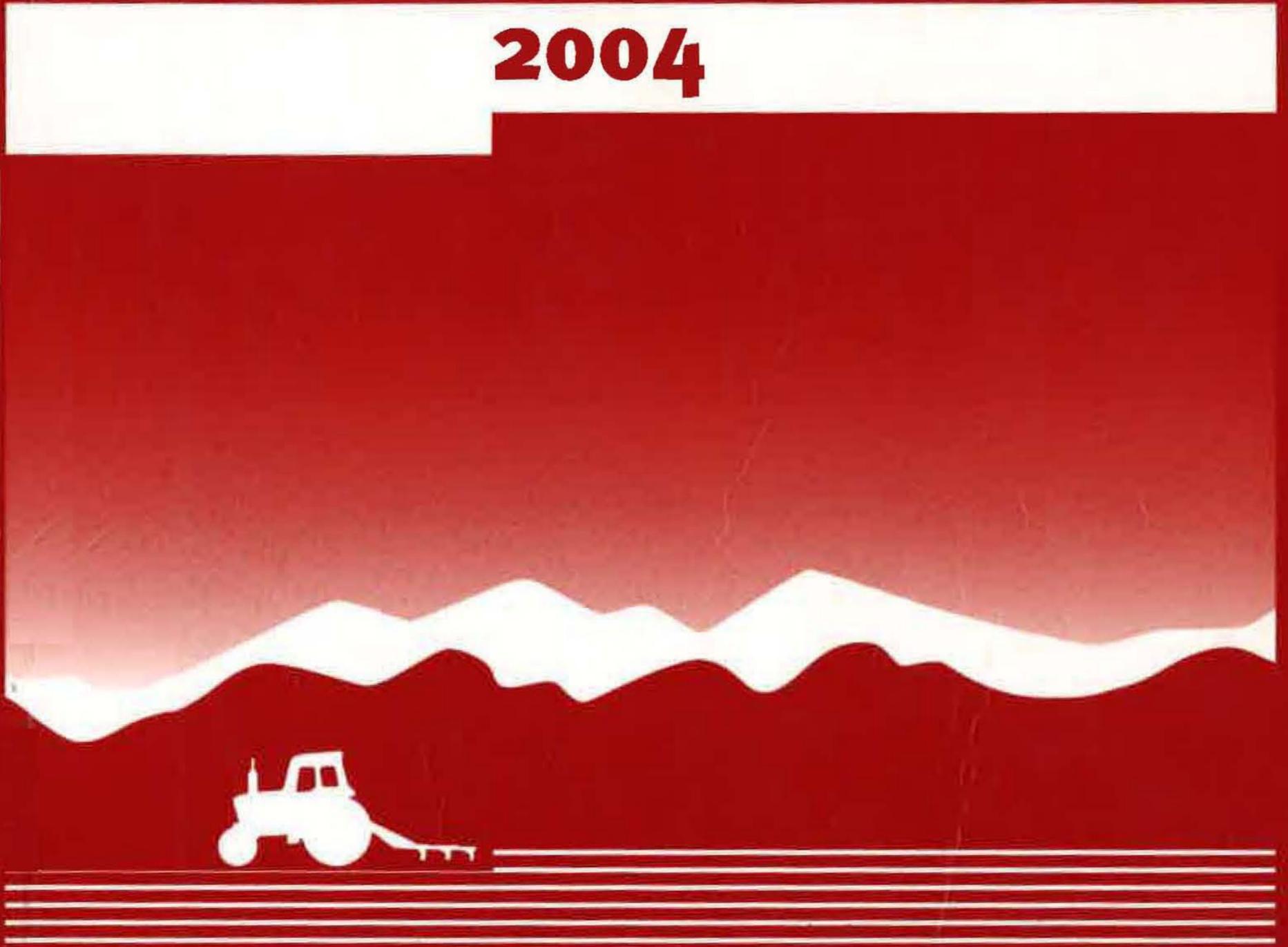


# FINANCIAL BUDGET MANUAL

**2004**



Farm Management Group  
Edited by  
Elizabeth S. Burt



**Lincoln  
University**  
*Te Whare Wānaka O Aoraki*

# **FINANCIAL BUDGET MANUAL 2004**

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ISBN 0-86476-159-7

ISSN 113-1397

## PREFACE

The "Financial Budget Manual 2004" 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 2004, and, unless stated otherwise, 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. In addition, some commodity price information is becoming increasingly sensitive and remains confidential between the supplier and the buyer. It is therefore unavailable for publication in this Manual.

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, or 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 Virginia Askin and Anna Paton for their efforts in gathering, collating and verifying information.

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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  
February 2004

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## **SECTION 6 - INDEX**

**SECTION 1**

**PRODUCT PRICES**

**Note:** Before reading this section, please refer to the disclaimer in the Preface of this Manual.

## 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	+22%	-18%
Mutton	+22%	-18%
Beef	+16%	-13%

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

*Source: MWI Economic Service.*

## 1.1.2 Exchange Rate

### (i) Major Currencies and TWI to \$NZ (2003)

2003	USA	UK	Aust	Japan	Euro	TWI
Jan	0.5404	0.3341	0.9264	64.16	0.5085	59.8
Feb	0.5534	0.3440	0.9311	66.11	0.5138	61.0
Mar	0.5541	0.3500	0.9203	65.76	0.5133	60.9
Apr	0.5509	0.3501	0.9053	66.00	0.5078	90.5
May	0.5762	0.3553	0.8907	67.61	0.4986	61.4
Jun	0.5809	0.3498	0.8741	68.70	0.4976	61.4
Jul	0.5860	0.3606	0.8854	69.52	0.5149	62.5
Aug	0.5823	0.3651	0.8937	69.18	0.5219	62.7
Sep	0.5838	0.3627	0.8831	67.21	0.5202	62.2
Oct	0.6010	0.3587	0.8676	65.87	0.5136	62.2
Nov	0.6277	0.3717	0.8773	68.54	0.5368	64.5
Dec	0.6466	0.3699	0.8758	69.74	0.5271	65.1
Jan 2004	0.6747	0.3694	0.8744	71.79	0.5304	66.45

Source: Reserve Bank.

### (ii) \$US to \$NZ (1974 to 2003)



Source: Reserve Bank.

**(iii) Annual Averages - Major Currencies and TWI to \$NZ (1992 to 2003)**

<b>Average for Period</b>	<b>USA</b>	<b>UK</b>	<b>Aust</b>	<b>Japan</b>	<b>Euro</b>	<b>TWI</b>
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
2002	0.4641	0.3088	0.8529	58.03	0.4911	54.16
2003	0.5819	0.3560	0.8942	67.36	0.5145	62.02

*Source: Reserve Bank.*

## 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 2004.

Weight (kg)	Grade	\$/kg carcass weight	Weight	Grade	\$/kg carcass weight
<b>9.1-11.0</b>	PL	2.00	<b>18.1-18.5</b>	TH	2.57
<b>11.1-12.0</b>	PL	2.01	<b>18.6-21.2</b>	TH	2.55
<b>12.1-13.2</b>	PL	2.91	<b>21.3-23.0</b>	TH	2.47
<b>13.3-15.5</b>	PM	3.11	<b>23.1-25.0</b>	TH	1.70
<b>15.6-17.0</b>	PM	3.16	<b>25.1-32.0</b>	TH	1.53
<b>17.1-17.5</b>	PX	3.06	<b>32.1 &amp; over</b>	TH	1.19
<b>17.6-18.0</b>	PX	2.96	<b>9.1-11.0</b>	FL	1.50
<b>18.1-18.5</b>	PX	2.93	<b>11.1-12.0</b>	FL	1.58
<b>18.6-21.2</b>	PX	2.91	<b>12.1-13.2</b>	FL	2.25
<b>21.3-23.0</b>	PH	2.81	<b>13.3-15.5</b>	FM	2.40
<b>23.1-25.0</b>	PH	1.91	<b>15.6-17.0</b>	FM	2.44
<b>25.1-32.0</b>	PH	1.71	<b>17.1-17.5</b>	FH	2.36
<b>32.1 &amp; over</b>	PH	1.31	<b>17.6-18.0</b>	FH	2.29
<b>9.1-11.0</b>	YL	2.00	<b>18.1-18.5</b>	FH	2.27
<b>11.1-12.0</b>	YL	2.10	<b>18.6-21.2</b>	FH	2.25
<b>12.1-13.2</b>	YL	3.00	<b>21.3-23.0</b>	FH	2.18
<b>13.3-15.5</b>	YM	3.20	<b>23.1-25.0</b>	FH	1.50
<b>15.6-17.0</b>	YM	3.25	<b>25.1-32.0</b>	FH	1.50
<b>17.1-17.5</b>	YX	3.15	<b>32.1 &amp; over</b>	FH	1.05
<b>17.6-18.0</b>	YX	3.05	<b>up to &amp; incl 11.0</b>	CL	1.30
<b>18.1-18.5</b>	YX	3.02	<b>11.1-12.0</b>	CL	1.37
<b>18.6-21.2</b>	YX	3.00	<b>12.1-13.2</b>	CL	1.95
<b>21.3-23.0</b>	YX	2.90	<b>13.3-15.5</b>	CM	2.08
<b>23.1-25.0</b>	YX	2.00	<b>15.6-17.0</b>	CM	2.11
<b>25.1-32.0</b>	YX	1.80	<b>17.1-17.5</b>	CH	2.05

<b>Weight (kg)</b>	<b>Grade</b>	<b>\$/kg carcass weight</b>	<b>Weight</b>	<b>Grade</b>	<b>\$/kg carcass weight</b>
<b>32.1 &amp; over</b>	YX	1.40	<b>17.6-18.0</b>	CH	1.98
<b>up to &amp; incl 9.0</b>	A	1.60	<b>18.1-18.5</b>	CH	1.96
<b>9.1-11.0</b>	TL	1.70	<b>18.6-21.2</b>	CH	1.95
<b>11.1-12.0</b>	TL	1.79	<b>21.3-23.0</b>	CH	1.89
<b>12.1-13.2</b>	TL	2.55	<b>23.1-25.0</b>	CH	1.30
<b>13.3-15.5</b>	TM	2.72	<b>25.1-32.0</b>	CH	1.17
<b>15.6-17.0</b>	TM	2.76	<b>32.1 &amp; over</b>	CH	0.91
<b>17.1-17.5</b>	TH	2.68	<b>All weights</b>	M	0.80
<b>17.6-18.0</b>	TH	2.59			

**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.

Skin Payments - per head values

13.3kg to 17.0kg     add                     \$1.50

17.1kg and over     add                     \$3.00

Wool Payment (per kg) 0.50 - \$1.80, 1.00 - \$2.50, 1.50 - \$3.20, 2.00 - \$3.90.

Movements of 0.05kg below 1.00kg - minus 0.07 cents, and of 0.05kg above 1.00kg - plus 0.07 cents.

Seedy wool and pelts are subject to a per head deduction as follows: Light, \$1.00, medium, \$1.00 and heavy \$2.00. Other deductions are – ribby, \$2.00 and Merino, \$3.50. For ribby and merino pelts a maximum net deduction of \$2.00 per head applies.

## 1.2.2 Lamb Price Trends

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

	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03p
<b>PM (\$/head)</b>	\$39.91	\$41.00	\$47.48	\$61.99	\$66.76	\$59.93
This price comprises:						
- Baremeat schedule (c/kg)	230.8	248.1	287.6	365.6	397.9	358.3
- Pelt and wool (\$/hd)	\$5.18	\$3.54	\$3.40	\$5.88	5.33	4.73
- Average weight (kg)	15.05	15.1	15.33	15.35	15.44	15.41
<b>"All Grades Average"</b>	\$39.23	\$41.82	\$49.81	\$63.62	\$70.73	\$64.22
Average weight (kg)	15.47	15.83	16.61	16.69	16.93	16.97

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

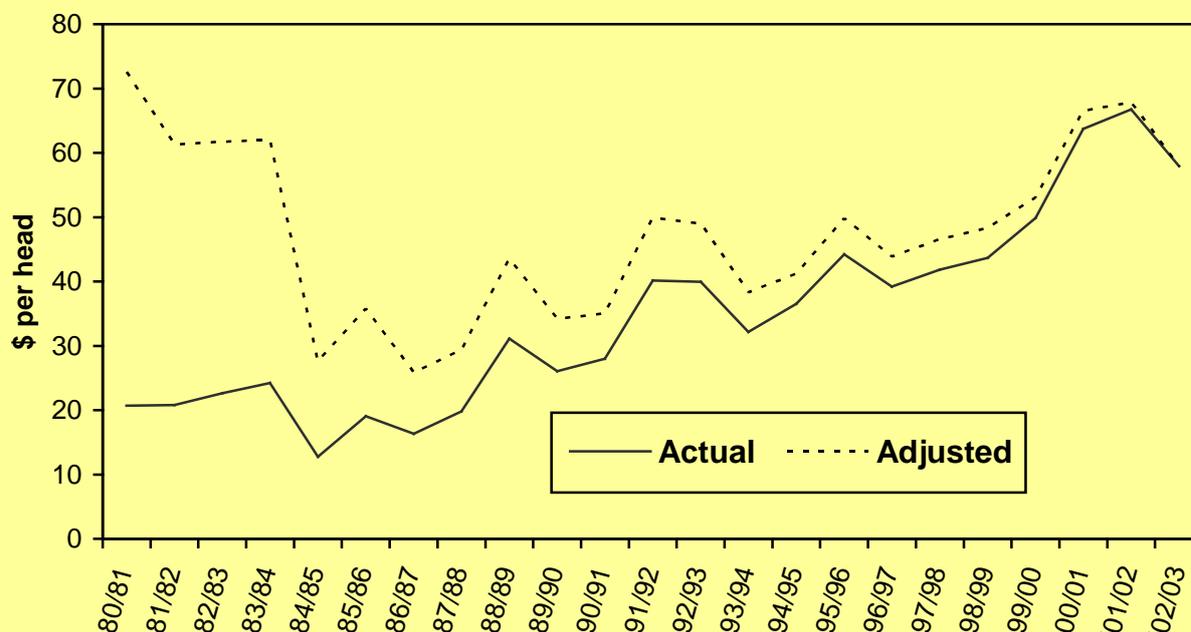
2. p = provisional.

3. Figures may not add due to rounding.

Source: MWI Economic Service.

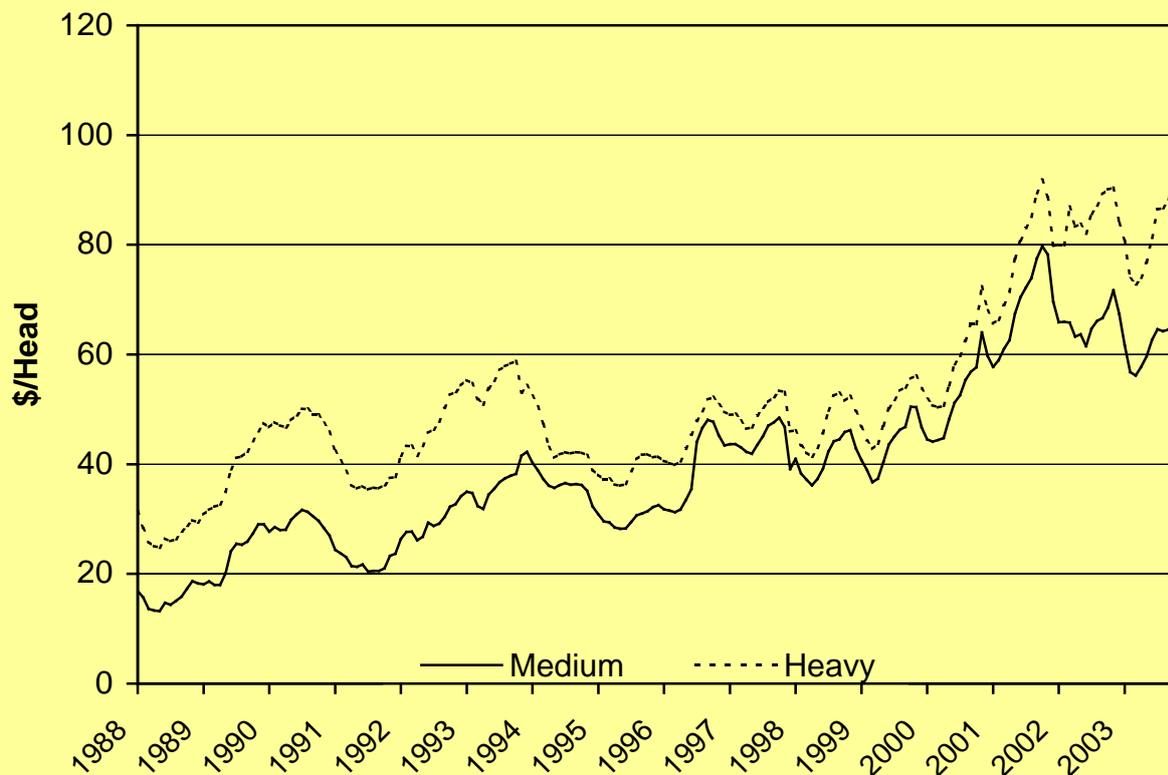
### (ii) Actual and Inflation Adjusted Lamb Prices, 1980 to 2003.

(PM Lamb Price - September year)



Source: Lincoln University

**(iii) Average net export price paid for heavy and medium lambs with a 1 kg woolly pelt (monthly averages, January 1988 to November 2003).**



**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. From 2001, weights were 15kg and 21.0kg.

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

**(iv) Prime Lamb/Hogget Prices - Local Trade**

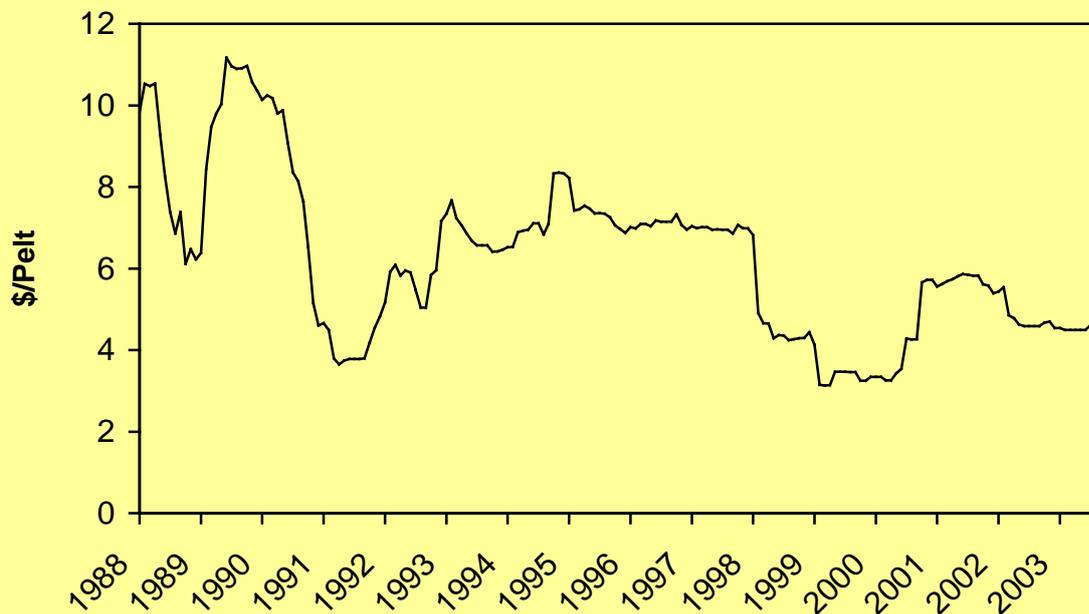
(See Section 1.2.10)

**(v) Store Lamb Prices**

(See Section 1.2.11 (i))

### 1.2.3 Lamb Skin Price Trends 1988 to 2003

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



Source: MWI Economic Service.

### 1.2.4 Contract Lamb Prices

#### *AFFCO* Lamb Plan 2004

The *AFFCO* Lamb Plan 2004 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 2004. 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 2004 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 2004 as slaughtered under a futures contract last year.

Manufacturing or condemned lambs slaughtered (either season) do not qualify.

## **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 2004 suppliers receive priority of slaughter space at all times.

### **Richmond Supply Plan 2003/2004**

Processing Space Preference

- Premier clients can expect to have their prime stock processed within 14 days of first registering their requirements with *Richmond* livestock representatives.
- Cull livestock – ewes, cows, service bulls will be processed in an appropriate order that allows Premier clients preference within capacity restrictions.

Eligibility to drafting fees, protection against mid week schedule movements and Volume/Profile bonuses apply.

Exclusivity Bonus - Premier clients that supply all their export livestock to *Richmond* throughout the season will receive an “end of season” payment guaranteed to be not less than 2 cents per kg on qualifying grades.

### **1.2.5 Live Lamb and Sheep Shipments**

In 2003 approximately 36,000 sheep were exported, it is expected that future exports will remain at this level which has remained constant since 2001

The sheep exported are sent to Saudi Arabia from New Zealand. In 2001 8,000 of these were Awassi sheep. However, 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 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 for lamb slink skins were 80c in 2003 and 75c in 2002, compared with 75c in 2001 and 65c in 2000. Prices paid by *Slink Skins Ltd* in the South Island for lamb slink skins were 75c in 2003. This price has remained the same for the previous two seasons, compared to 65c in 2000.

### 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 2004. These are net prices offered to farmers for the various mutton grades.

<b>Weight</b>	<b>Grade</b>	<b>Schedule Price</b>
Up to and including 23.2	ML1	157 cents per kg
23.3 and over	ML2	147 cents per kg
All weights	MH	120 cents per kg
Up to and including 23.2	MX1	161 cents per kg
23.3 and over	MX2	151 cents per kg
All weights	MM	103 cents per kg
All weights	MF	91 cents per kg
All weights	MP	71 cents per kg
Rams – all weights	R	71 cents per kg
Wool – per kg		
0.20 kg		\$4.00
0.50 kg		\$5.20
1.00 kg		\$5.70

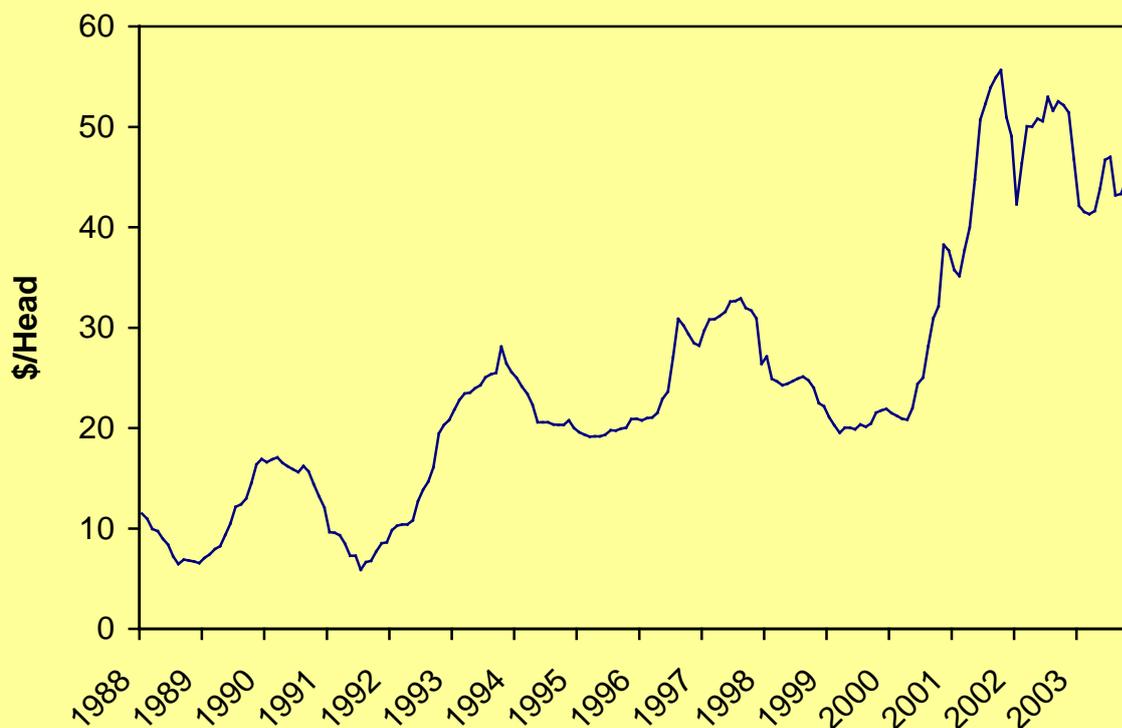
Movements of 0.05kg below 0.50kg - minus 0.20 cents, and 0.05kg above 0.50kg - plus 0.05 cents

### 1.2.8 Contract Ewe Prices

*Richmond* refer to section 1.2.4.

### 1.2.9 Mutton Price Trends (Export)

Net Value of a 21kg Ewe wit a 0.3kg Pelt (January 1988 to November 2003)



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

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

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

	1998/99	1999/00	2000/01	2001/02	2002/03p	2003/04f
MX1 Mutton < 22kg	\$23.54	\$25.56	\$39.60	\$47.65	\$43.21	\$41.90
This price comprises:						
Baremeat schedule (cents per kg)	101.10	113.6	173	214.2	191.0	185.9
Pelt and wool (\$/hd)	\$3.72	\$3.18	\$5.45	\$5.18	\$5.24	\$5.00
"All Grades Average"	\$23.92	\$26.27	42.13	51.90	47.12	44.90

*Source: MWI 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) 2003:

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

	Tuakau (Pukekohe)		Stortford (Hawkes Bay)		Canterbury	
	Low	High	Low	High	Low	High
	\$/head					
<b>Jan/Feb</b>						
Lambs	\$39.87	\$80.37	\$40	\$70	\$45	\$78
Hoggets	\$40.33	\$80.33	\$40	\$66		
Ewes	\$9.66	\$58.25	\$25	\$57	\$30	\$64.50
<b>Mar/Apr</b>						
Lambs	\$43.30	\$77.87	\$40	\$87	\$50	\$80
Hoggets	\$34.33	\$53.00	\$45	\$70	\$46	\$55
Ewes	\$22.80	\$54.50	\$20	\$60	\$35	\$63
<b>May/June</b>						
Lambs	\$49.10	\$93.60	\$52	\$98	\$60	\$130
Hoggets	\$41.00	\$59.30	\$50	\$65	\$40	\$50
Ewes	\$15.60	\$68.10	\$20	\$65	\$30	\$58
<b>July/Aug</b>						
Lambs	\$36.37	\$93.87	\$50	\$111	\$70	\$109
Hoggets	\$30.25	\$51.50	\$46	\$52	\$40	\$60
Ewes	\$13.75	\$68.10	\$15	\$67	\$35	\$60
<b>Sept/Oct</b>						
Lambs	\$54.70	\$105.80	\$60	\$113	\$75	\$115
Hoggets	\$47.66	\$81.62	\$53	\$110	\$50	\$70
Ewes	\$28.75	\$72.50	\$30	\$76	\$40	\$65
<b>Nov/Dec</b>						
Lambs	\$36.66	\$112.75	\$50	\$108	\$70	\$90
Hoggets	\$34.33	\$98.50	\$45	\$120	\$45	\$60
Ewes	\$7.00	\$66.66	\$3	\$85	\$30	\$65

**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) 1995 to 2003

##### *Store Lambs*

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
	\$	\$	\$	\$	\$
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
2000/01	56.56	53.45	59.20	47.43	46.02
2001/02	54.73	59.6	63.39	57.74	58.95
2002/03p	49.12	52.76	55.11	51.78	45.77

##### *Store Two-Tooth Ewes*

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
	\$	\$	\$	\$	\$
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
2000/01	73.69	73.99	76.38	82.26	82.36
2001/02	115.94	91.60	107.54	123.53	114.22
2002/03p	74.58	80.01	94.99	92.71	-

##### *Store Mixed Age Ewes*

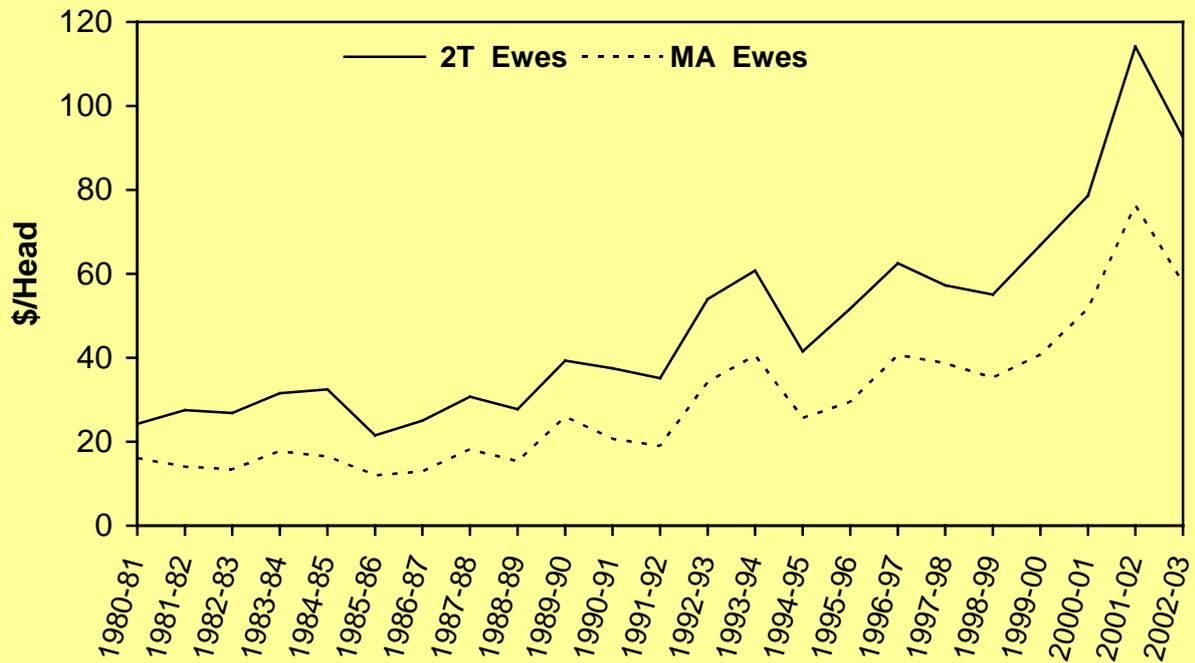
	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
	\$	\$	\$	\$	\$
1995/96	27.67	30.98	30.94	27.82	31.99
1996/97	40.63	44.15	45.11	37.25	40.60
1997/98	36.42	41.14	40.81	36.38	39.75
1998/99	37.52	36.76	38.24	30.50	44.26
1999/00	38.82	39.81	40.54	38.26	52.71
2000/01	53.42	56.54	54.54	50.25	60.10
2001/02	62.11	72.29	77.96	73.32	90.84
2002/03	67.40	63.96	62.03	49.71	73.39

p = provisional

Source: MWI Economic Service.

**(ii) N.Z. Average Purchase Price for MA Ewes and two-tooths (1980 to 2003)**

(\$ per head - All Regions Average)



Source: MWI Economic Service.

## 1.3 WOOL

### 1.3.1 Wool Market Prices

(Clean market prices – \$ per kg for all wool, fleece and oddments)

Diameter micron	Colour (Y/Z)	Length (mm)	2001/02 \$/kg	2002/03 \$/kg
<b>(i) Merino</b>				
15			29.73	15.25
16			20.39	27.71
17			17.11	20.50
18	1.0	80	13.74	15.22
19	1.0	80	10.39	13.26
20			8.57	12.68
21	1.0	85	8.09	12.68
20			7.89	12.46
23	1.0	90	7.67	11.21
<b>(ii) Halfbred and Corriedales</b>				
24			7.12	9.52
25	2.0	90	6.85	9.49
26			6.61	8.63
27	2.0	95	6.08	7.48
28			5.26	5.85
29	2.0	100	4.94	5.13
30			5.10	4.68
31	2.0	105	5.30	4.63
<b>(iii) Crossbred</b>				
32	3.5	115	5.17	4.63
33	3.5	115	4.67	4.61
34	3.5	115	4.46	4.53
35	3.5	125	4.22	4.39
36	3.5	125	4.11	4.36
37	3.5	125	4.11	4.40
38	5.5	125	4.12	4.44
39	2.5	125	4.13	4.42

## Crossbred Full Fleece (continued)

Diameter micron	Colour (Y/Z)	Length (mm)	2001/02 \$/kg	2002/03 \$/kg
40			4.13	4.35
41			4.12	4.27
42			4.04	4.18
43			4.04	4.14
44			3.98	4.18
Untested			4.11	4.97
24 and finer			11.03	14.45
25 to 31			5.37	5.58
32 and stronger			4.23	4.43

Auction prices are available at [www.mwi.co.nz](http://www.mwi.co.nz)

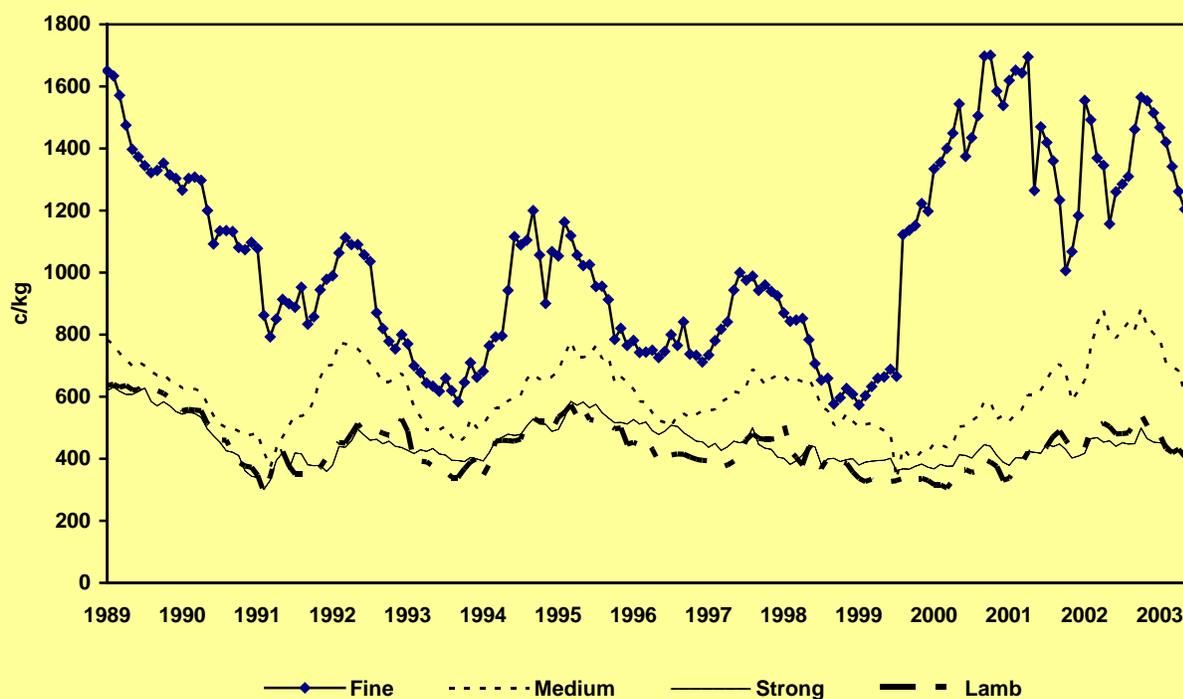
Source: Tectra

### 1.3.2 Wool Price Trends

#### (i) Price Indicators 1989 to 2003.

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: MWI Economic Service.

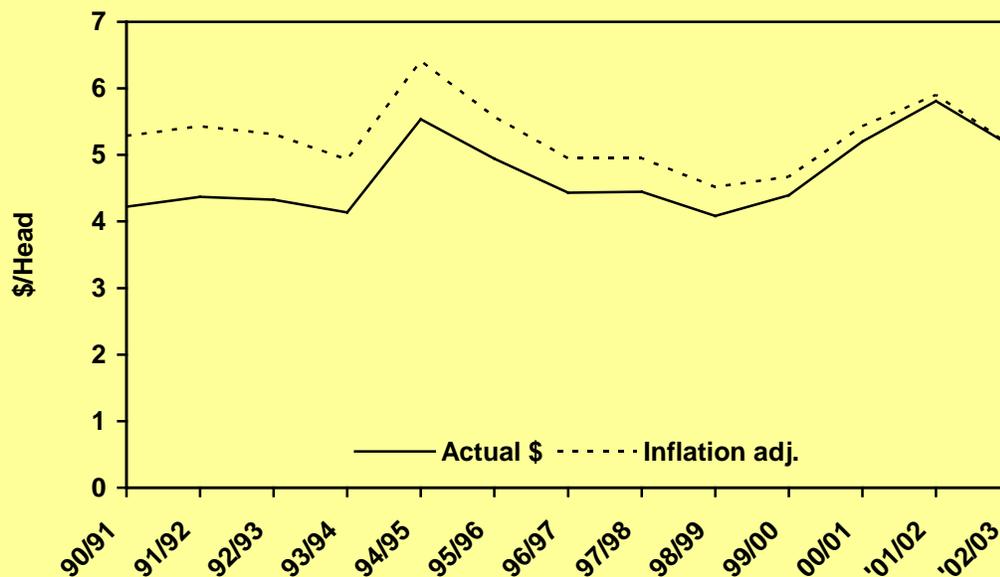
**(ii) Wool Market Indicator Prices.**

(cents per kilogram clean)	Fine	Medium	Strong
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
2000-01	1543	519	405
2001-02	1098	598	384
2002/03	1286	934	472
2003/04p	1080	787	421

p = provisional

Source: MWI Economic Service, Straight Furrow

**(iii) Actual and Inflation Adjusted Clean Wool Price.**



(Average Auction Price 1990 to 2003 - 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 2004 from a meat company. All charges and levies have been deducted.

<b>Steers</b>	<b>P</b>	<b>A</b>	<b>L</b>	<b>T</b>	<b>F</b>
Carcass Weight	03-10mm	Nil	Under 03mm	11-16mm	17mm and over
145.0-195.0	195	088	113	170	113
195.5-220.0	220	113	138	170	113
220.5-245.0	245	149	174	230	113
245.5-270.0	269	159	184	253	113
270.5-295.0	279	169	194	263	173
295.5-320.0	279	169	194	263	173
320.5-345.0	279	169	194	263	173
345.5 and over	259	169	194	243	173

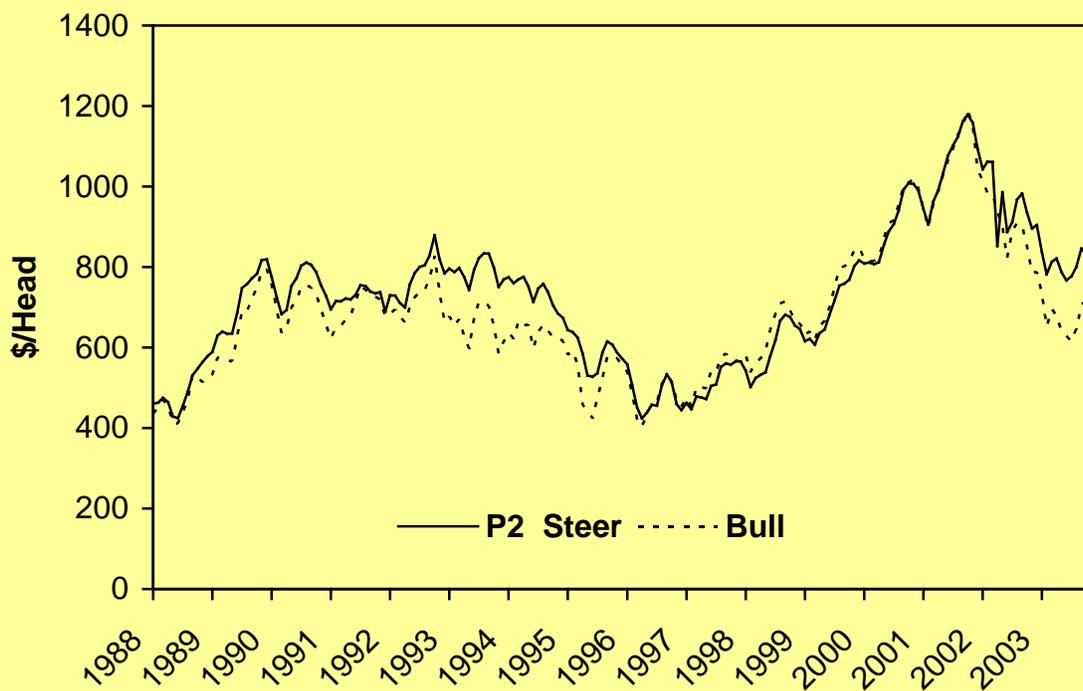
<b>Prime Cows</b>	<b>P</b>	<b>T</b>	<b>F</b>
Carcass Weight	03-10 mm	11-16 mm	17mm and over
Up to 195.0	173	138	098
195.5-220.0	187	152	098
220.5-245.0	208	193	098
245.5-270.0	208	193	098
270.5-295.0	208	193	113
295.5 and over	208	193	138

<b>M Cow</b>	
Carcass Weight	
Up to 145.0	110
145.5-170.0	152
170.5-195.0	164
195.5-220.0	181
220.5 & over	190

<b>Bulls</b>	<b>M</b>	<b>TM</b>
<b>Carcass weight</b>	<b>Under 03 mm</b>	<b>03-10 mm</b>
Up to 195.0	144	135
195.5-220.0	144	135
220.5-245.0	184	175
245.5-270.0	224	215
270.5-295.0	239	230
295.5-320.0	249	240
320.5-345.0	249	240
345.5-360.0	234	225
360.5-400.0	219	210
400.5 and over	204	195

### 1.4.2 Beef Price Trends (Export)

#### (i) Net Price paid for 280 kg P2 Steer and 260 kg Bull (Jan 1988 to Nov 2003)



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

## (ii) Cow Beef Schedule

(170.5-195 kg)	96/97	97/98	98/99	99/00	00/01	00/02	02/03p
Cow M Grade (cents/kg)	146	186	206	267	332	315	211
Cow M Grade (Average \$/hd)	\$267	\$339	\$376	\$488	\$606	\$575	\$386

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

Source: MWI Economic Service.

## (iii) Bull Beef Schedule

(270-295 kg)	96/97	97/98	98/99	99/00	00/01	00/02	02/03p
Bull Grade (cents/kg)	187	229	263	325	373	385	277
Bull Grade (average \$/hd)	\$529	\$647	\$742	\$919	\$1054	1,090	785

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

Source: MWI Economic Service.

### 1.4.3 Beef Contracts and Pools

See also *Sections 1.5.7 and 1.5.8*

#### (i) *AFFCO* Cow Pool 2004.

The *AFFCO* Cow Pool 2004 is specifically designed for dairy farmers, for details see *Section 1.5.9*.

(ii) *Richmond* - Refer to *Section 1.2.4* for *Richmond* Supply Plan 2003/2004.

### 1.4.4 Calf Slink Skins

Prices paid by a North Island firm in 2003 were \$3 per skin for heavy skins, \$2 per skin for medium skins and 50c for light slink skins. *Slink Skins Ltd* (South Island) prices for 2003/2002 were \$4 for a large skin and \$1 for a small skin. In 2002 the North Island price for heavy skins was \$3, for medium \$2, and light \$1, compared with 2001 North Island prices of \$4.00 per skin for heavy, \$2.00 for medium and \$1.00 for small. *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.

### 1.4.5 Cattle Prices - Prime Stock (Local Sales)

#### Sales Information (three main sale centres) 2003:

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

	Tuakau (Pukekohe)		Stortford (Hawkes Bay)		Canterbury	
	Low	High	Low	High	Low	High
Cents per kg live weight						
<b>Jan/Feb</b>						
Steers	122	164	139	165	218	225
Heifers	106	160	101	165	205	211
Cows	47	145	80	126	130	147
<b>Mar/Apr</b>						
Steers	114	163	138	157	200	210
Heifers	97	156	110	156	190	210
Cows	48	133	82	120	125	140
<b>May/June</b>						
Steers	113	155	130	157	195	203
Heifers	91	148	110	149	180	190
Cows	46	122	80	138	125	130
<b>July/Aug</b>						
Steers	117	166	141	170	180	191
Heifers	83	165	106	159	170	180
Cows	45	132	80	128	120	140
<b>Sept/Oct</b>						
Steers	137	179	155	180	185	193
Heifers	102	178	130	167	150	163
Cows	53	142	80	134	105	140
<b>Nov/Dec</b>						
Steers	130	178	140	180	170	180
Heifers	100	167	124	170	140	165
Cows	23	147	83	133	110	130

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) 1995 to 2003.

##### Store 2.5 Year Steers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
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	-
2000/01	974	945	865	809	-
2001/02	960	1,021	881	1,007	918
2002/03p	806	790	705	714	-

##### Store 1.5 Year Steers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
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
2000/01	794	823	770	704	769
2001/02	799	820	835	846	668
2002/03p	646	686	632	610	486

##### Store Weaner Steers (\$ per head)

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
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
2000/01	484	531	540	459	521
2001/02	486	577	562	579	469
2002/03p	357	411	386	435	438

\* 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
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
2000/01	454	351	439	363	370
2001/02	477	433	506	456	496
2002/03p	317	264	323	292	330

**Store 1.5 year Heifers (\$ per head)**

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
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
2000/01	585	642	576	617	606
2001/02	617	650	662	593	592
2002/03p	519	525	512	483	478

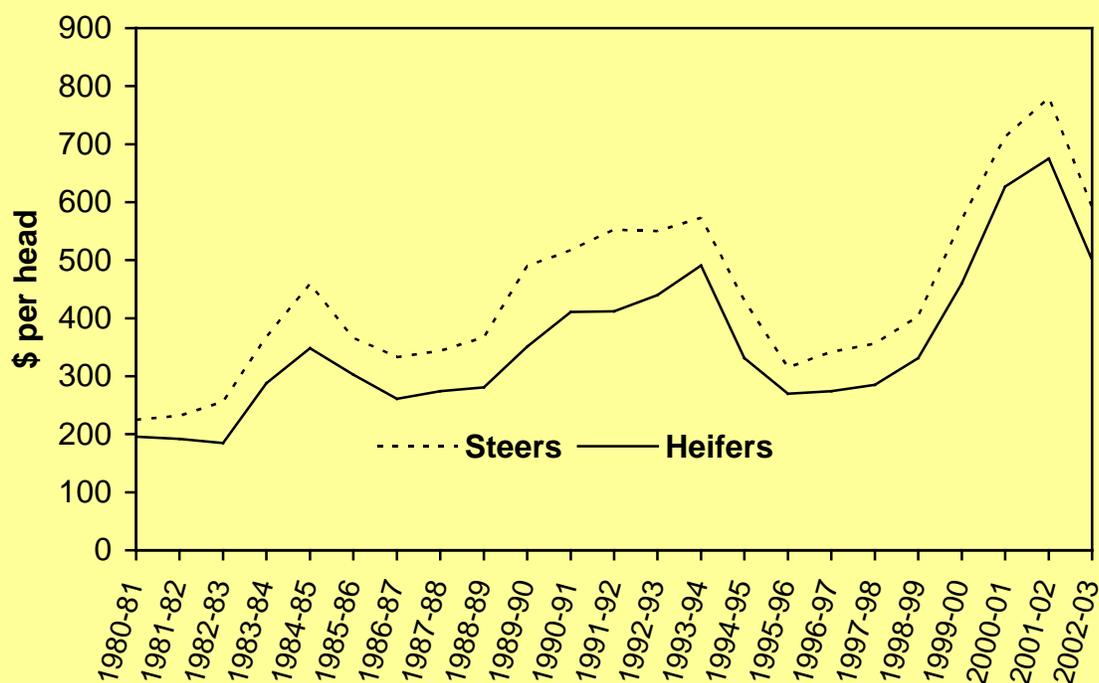
**Store Cows (\$ per head)**

	North/South Auckland	East Coast	Taranaki Manawatu	Marlborough Canterbury	Otago Southland
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
2000/01	784	847	838	795	706
2001/02	620	856	1,017	845	935
2002/03p	548	526	597	431	453

p = provisional

Source: MWI Economic Service.

**(ii) N.Z. Average Purchase Price for 18 Month Steers/Heifers (1980 to 2003)**



**Note:** 2001/2002 figures are provisional and those for 2002/2003 are an estimate.

Source: MWI 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 2003 were as follows.

			<b>\$ per head</b>
Beef	Weaner cattle	Up to 1 year	470
	Beef breeding cattle	1 to 2 years	870
	“ “ “	2 years +	1190
	Steers and non-breeding bulls	1 to 2 years	880
	“ “ “	“ 2 years +	1225
	Breeding bulls		4600
Dairy Cattle	Seasonal supply	more than 2 years	930
		1 to 2 years	760
		6 weeks to 1 year	430
	Town supply	more than 2 years	1163
		1 to 2 years	950
		6 weeks to 1 year	538

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: Animal Health Board.*

## 1.5 DAIRY PRODUCE

### 1.5.1 Price paid for Milksolids

#### (i) Background.

Up until the end of the 2000/2001 season, dairy farmers received payment from the New Zealand Dairy Board through a system of advance and final payouts via dairy companies. Seasonal supply dairy companies passed on the Dairy Board advance rate to their suppliers in addition to a margin based on dairy company efficiency, product mix and investment policies; together known as the total payout.

The introduction of the Dairy Industry Restructuring Act 2001 opened the way for New Zealand's largest dairy companies, *Kiwi Co-operative Dairy Company (Kiwi)* and *New Zealand Dairy Group (NZDG)* to merge with the Dairy Board to form *Fonterra Co-operative Group Ltd.* Further, the act allowed smaller dairy companies, such as *Tatua* and *Westland* to become separate independent co-operatives. *Fonterra* remains a co-operative, 100% owned and controlled by its shareholder suppliers.

The payout that *Fonterra* pays its suppliers for raw milk is calculated from the actual revenues received from commodity sales, less the actual costs incurred producing and selling those commodities. The payout also includes a value added component received from investing activities (less retentions) in high value consumer markets and in value added dairy ingredients.

To support suppliers seasonal cash flows *Fonterra* advances a proportion of the final payout for milk supplied each month. These advance rates increase throughout the season as full year returns become more certain.

*Source: LIC Dairy Statistics 2002/2003, Fonterra Co-operative Group Ltd.*

#### (ii) Milksolids Payment Basis.

*Fonterra's* payout (and Advance rates) expressed in terms of \$ per kg of milksolids represent the total money to be distributed to shareholders, when averaged over the total kg of milksolids supplied. This is not the actual amount paid to individual shareholders, as actual payments are based on the composition of their individual raw milk.

Standard payments for milk are calculated by the formula

#### **a + b +/- c where:**

a = cents per g of the milkfat component contained in the milk (subject to Company grading).

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

c = volume adjustment in cents per litre of raw milk (subject to Company grading).

## **Payments for Fat and Protein (a + b)**

The splitting of payout into separate payment rates for fat and protein is dependant on two key parameters:

**The fat to protein value ratio (V)** - this is the ratio of the value of milkfat compared with the value of protein and reflects the relative returns achieved by *Fonterra* from milkfat and protein sold in all products in all markets.

This is set at the beginning of each season with the ratio for the 2003/2004 season being 0.35. This means that the payment for a kg of fat is 0.35 (or 35%) of the payment made for a kg of protein. The ratio between the fat and protein payment rates is held constant throughout the season (including the final payment) regardless of the advance rate paid.

**The composition ratio (C)** - this is the ratio of the total amount of protein supplied to the company in the season versus the total amount of milkfat.

For the 2003/2004 season this has initially been estimated as 0.7567. This means that for every kg of fat supplied the company is expecting to receive 0.7567 kg of protein. This ratio is updated with the actual ratio at the end of the season when the figure is known. If the actual figure at the end of the season is greater than the initial estimate then the final fat and protein payment rates are both reduced so that on average the company still pays the announced payout.

This has to occur because the company would be paying out on a greater quantity of protein than originally estimated, and because protein is paid for at a higher rate, the company would end up paying out more money than it actually has available to distribute. Conversely, if the actual composition ratio is less than the initial estimate, the final fat and protein rates are both increased so that, on average, the company still pays the announced payout.

## **Volume Adjustment (+/- c)**

The volume adjustment applied to an individual supplier's milk payment is dependent upon the milksolids content of the milk relative to the company average. If the supplier's milksolids content is greater than the company average, they will receive a positive adjustment for every litre of milk supplied. Conversely, if their milksolids content is less than the company average, they will receive a negative adjustment for every litre of milk supplied.

As the company average milksolids content is not known until the end of the season an estimate is used throughout the season until the actual number is known. For the 2003/2004 season the initial estimate is 8.50%. If the actual company average milksolids content at the end of the season is less than this estimate then all suppliers will receive an increase in their volume adjustment payment (i.e. suppliers paid a positive volume adjustment will receive a more positive adjustment and suppliers paid a negative volume adjustment will receive a less negative adjustment). Conversely if the actual company average is more than the initial estimate, all suppliers will receive a decrease in their volume adjustment payment.

### Calculation of Payout Split

$$\text{Protein payment rate} = \frac{(1+C) \times \text{Advance Rate}}{(V + C)}$$

$$\text{Milkfat payment rate} = \frac{(1+C) \times \text{Advance rate}}{(1/V \times C + 1)}$$

Where: C = Composition Ratio (company protein to milkfat ratio)

V = Valued Component Ratio (fat to protein value ratio)

### Example

$$\begin{aligned} \text{Protein payment rate} &= \frac{(1+0.7567) \times 2.90}{(0.35 + 0.7567)} \\ &= 4.6033 \text{ \$/kg} = 460.33 \text{ c/kg} \end{aligned}$$

$$\begin{aligned} \text{Milkfat payment rate} &= \frac{(1+0.7567) \times 2.90}{(1/0.35 \times 0.7567 + 1)} \\ &= 1.6111 \text{ \$/kg} = 161.11 \text{ c/kg} \end{aligned}$$

### Supplier Payment Example:

Supplier details :

Litres	Protein	Milkfat	Milksolids	Farm average milksolids	Farm protein to milkfat ratio
113,298	4,317.1	6,322.6	10,639.7	9.39%	0.6828

Company average milksolids % = 8.5

Company protein to milkfat ratio = 0.7567

Component	Quantity	Rate (cents)	Total \$
Protein	4,317.1 kg	460.33 / kg	19,872.91
Milkfat	6,322.6 kg	161.11 / kg	10,186.34
Volume Adjustment	113,298 litres	$([9.39-8.50] / 8.50) * 3.94$ = 0.4125 / litre	467.35
<b>Total paid to supplier</b>			<b>30,526.60</b>

Total paid per kg milksolids: \$ 2.87

Company Advance Rate: \$ 2.90

In the above example a positive Volume Adjustment is paid because the farm's average milksolids % is greater than the company's average milksolids %. However, the total paid per kg of milksolids is less than the company advance rate. This is because the farm's protein to fat ratio is less than the company's average (i.e. less protein has been produced per kg of milkfat compared to the company).

As the company's average milksolids % and protein to milkfat ratio are estimated at the beginning of the season and replaced with actual numbers at the end of the season. This impacts the split of the final payout into separate rates for milkfat and protein, and total volume adjustment paid for the season.

### (iii) 2003/2004 Forecast Payments.

The *Fonterra* advance rates for the 2003/2004 season, advised in September 2003, were as follows:

Payment Month	\$ per milk solid equivalent
October 2003	\$2.70
November	\$2.75
December	\$2.75
January 2004	\$2.75
February	\$2.75
March	\$2.95
April	\$3.15
May	\$3.35
June	\$3.55
July	\$3.75
August	\$3.95

Split of final payment is dependent on actual milk composition for the season and does not include any reduction for the *Dairy Insight* levy.

### 1.5.2 Milksolids Price Trends

#### Milksolids in wholemilk for manufacture (cents per kg).

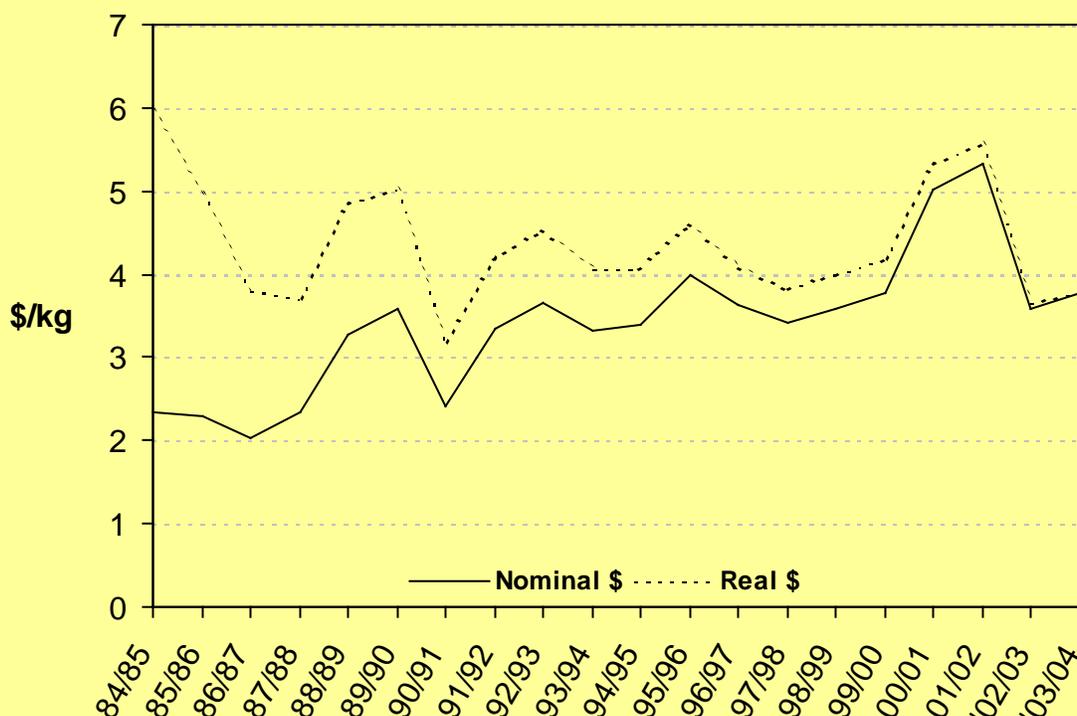
	<b>89/90</b>	<b>90/91</b>	<b>91/92</b>	<b>92/93</b>	<b>93/94</b>	<b>94/95</b>
<b>NZDB-Final</b>	331.13	212.22	298.03	325.29	290.00	300.00
<b>Company margin</b>	28.57	29.76	36.42	40.54	41.72	39.85
<b>NZ weighted average</b>	359.70	241.98	334.45	365.83	331.72	339.85
	<b>95/96</b>	<b>96/97</b>	<b>97/98</b>	<b>98/99</b>	<b>99/00</b>	<b>00/01</b>
<b>NZDB-Final</b>	360.00	318.00	300.00	325.00	335.00	460.00
<b>Company margin</b>	39.43	44.88	41.65	32.95	43.00	41.00
<b>NZ weighted average</b>	399.43	362.88	341.65	357.95	378.00	501.00
	<b>'01/02</b>	<b>'02/03e</b>	<b>'03/04f</b>			
<b>NZ weighted average</b>	532	359	378			

e = estimate, f = forecast

Source: New Zealand Dairy Board, *Livestock Improvement(1999-2001)*, [www.fonterra.co.nz](http://www.fonterra.co.nz)

**Average Payouts since 1984 in actual Dollars and in "Real" Dollars (based on the value of the dollar in December 2003 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 daily demerit points scheme under which demerit points are incurred by a supplying shareholder for quality defects detected on a daily basis. The aim of the scheme is to ensure that supplying shareholders are held responsible for milk quality and incur penalties on the basis of downgrade milk supplied.
- The company can reject milk that does not meet certain standards.
- The Company can impose a maximum of 12 demerit points on a supplying shareholder in any one day except where inhibitory substances are involved, milk is rejected or in the first ten days of a season where there is a maximum of 20 demerits per collection day.
- One demerit point equals a 5% deduction from payments. The demerit rates will be based on 90% of the opening payout forecast for the season.

*Fonterra* carries out a number of Raw Milk Quality Tests. For details refer to the Farm Technical Manual *Section 1.5.10.2*

### 1.5.4 Winter and Quota Milk Contracts

The vast majority of winter milk contractors have standard *Fonterra* contracts, committing to supply of a daily litreage from 1 May to 31 August each year. There is no penalty for undersupply outside the critical periods of 1 June to 20 July (North Island) and 1 June to 31 July (South Island). In these “liquidated damages” periods, farmers are liable to pay the company 50% of the premium on the average amount they are short by in each month (or first

20 days of July in the North Island)

Farmers have a litreage contract though they are paid on a cents per kg milksoilids basis.

There are tighter milk quality requirements for winter contract milk.

Some farmers in the Lower North Island and Canterbury/Otago still have legacy company contracts, which expire between 31 July 2004 and 31 May 2008. All new contract supplies are coming from farms with the standard *Fonterra* contract.

North Island Premiums will remain the same in 2005 as for 2004

Regional Premiums - cents per kg milksoilids

Region	Winter 2004 and 2005
Far North	65.0
Kauri	80.0
Auckland/North Waikato/Hauraki	115.0
South Waikato/Western Bay of Plenty	80.0
Central North Island/ Eastern Bay of Plenty	65.0
Taranaki /Manawatu	180.0
Hawkes Bay/ Wairarapa	145.0

In the South Island, *Fonterra* will offer up to 50,000 litres per day extra winter contract volumes for 2005 to farmers in Canterbury, Otago and Southland, with first preference to Canterbury supply. The premium will be \$3.85 per kg milksoilids, less cartage in the case of milk produced in Otago and Southland. Those with current “New South Island” agreements will be able to continue supplying their current winter 2004 volumes for 2005 and 2006 at this premium as well.

### 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 (2003)

Actual prices for Spring 2003 and estimates for 2004 for dairy cattle are presented below for six regions.

#### Waikato

Class		Winter/Spring 2003	Winter/Spring 2004
MA cows	Friesian	\$800 - \$1000	\$800 - \$1050
	Jersey	\$900 - \$1050	\$700 - \$1050
Rsg 2yr heifers	Friesian	\$850 - \$800	\$650 - \$850
	Jersey	\$600 - \$800	\$600 - \$800
Rsg 1yr heifers	Friesian	\$400 - \$450	\$300 - \$360
	Jersey	\$350 - \$400	\$300 - \$360

#### Bay of Plenty.

Class		Winter/Spring 2003	Winter/Spring 2004
MA cows	Friesian	\$200 - \$1030	\$700 - \$1000
	Jersey	\$600 - \$1000	\$600 - \$800
Rsg 2yr heifers	Friesian	\$450 - \$750	\$700 - \$900
	Jersey	\$300 - \$500	\$450 - \$650
Rsg 1yr heifers	Friesian	\$300 - \$550	\$350 - \$550
	Jersey	\$250 - \$400	\$300 - \$430

#### Taranaki

Class		Winter/Spring 2003	Winter/Spring 2004
MA cows	Friesian	\$700 - \$1000	\$900 - \$1100
	Jersey	\$580 - \$900	\$800 - \$1000
Rsg 2yr heifers	Friesian	\$600 - \$900	\$700 - \$950
	Jersey	\$400 - \$700	\$600 - \$800
Rsg 1yr heifers	Friesian	\$300 - \$450	\$350 - \$550
	Jersey	\$250 - \$400	\$300 - \$450
4 day heifer calves	Friesian	\$60 - \$100	\$80 - \$120
	Jersey	\$40 - \$80	\$60 - \$100

- 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 2003	Winter/Spring 2004
MA cows	Friesian	\$850 - \$1050	-
	Jersey	\$750 - \$950	-
Rsg 2yr heifers	Friesian	\$750 - \$850	-
	Jersey	\$700 - \$800	-
Rsg 1yr heifers	Friesian	\$350	-
	Jersey	\$300	-
Heifer calves		\$80 - \$100	-

**Canterbury.**

Class		Winter/Spring 2003	Winter/Spring 2004
MA cows	Friesian	\$850 - \$1150	\$800 - \$1100
	Jersey	\$850 - \$1050	\$800 - \$1050
Rsg 2yr heifers	Friesian	\$700 - \$900	\$750 - \$950
	Jersey	\$650 - \$900	\$650 - \$900
Rsg 1yr heifers	Friesian	\$400 - \$500	\$400 - \$550
	Jersey	\$350 - \$450	\$350 - \$450
Heifer calves		\$0.50 - \$0.80 per BW	-

Note: BW = breeding worth

**Southland.**

Class		Winter/Spring 2003	Winter/Spring 2004
MA cows	Friesian	\$750 - \$900	\$800 - \$1000
	Jersey	\$700 - \$825	\$725 - \$950
Rsg 2yr heifers	Friesian	\$550 - \$800	\$800 - \$950
	Jersey	\$500 - \$725	\$550 - \$750
Rsg 1yr heifers	Friesian	\$350	\$400 - \$550
	Jersey	\$300	\$325 - \$350

### 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 2003):

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

Canterbury:

Top quality four-day-old Friesian bull calves sold for \$50 to \$70 per head in 2003. Prices were \$120 to \$150 in 2001.

Bay of Plenty:

In spring 2003 top quality 4 day Friesian bull calves sold for \$60,. Beef cross dairy calves (Hereford x Friesian) were selling for \$60 to \$110

#### (ii) Calves sold at Tuakau (Pukekohe) 2002/2003

	2002		2003	
	Average	Maximum	Average	Maximum
January	219.78	336.66	149.49	274.50
February	228.59	355.00	154.02	235.50
March	200.98	353.25	132.56	224.00
April	187.48	358.00	109.56	240.00
May	192.90	380.00	115.49	265.00
June	128.37	288.75	84.55	198.00
July	124.68	300.00	76.51	225.00
August	100.31	247.50	55.28	176.75
September	87.09	223.50	58.88	175.40
October	69.45	170.00	64.23	158.00
November	91.44	222.25	96.50	183.00
December	128.16	258.33	144.76	242.33

#### (iii) Heifer sold for Export:

In 2003, 4000 to 5000 were exported to China. The later shipments of these (after November) had been running with bulls, but were not pregnancy tested, therefore not guaranteed as “in calf”. These were fetching \$500 to \$600 per head. In 2004, it is expected that 10,000 to 15,000 will be exported. These will be delivered in March and will have to be guaranteed “in calf”. Currently \$800 to \$900 per head is being paid. Friesian yearlings for export will sell for \$380 to \$400. These prices are expected to be similar for both high and low BW animals

#### (iv) Bobby Calf Price at Farm Gate:

*Blue Sky Meats Ltd* – Prices are cents per kg hot carcass weight

Weight Range	2003	2002	2001
11.1 – 13.5	95	170	314
13.6 – 16.4	143	241	476
16.5 – 19.9	157	284	531
20.0 – 23.4	192	324	572
23.5 – 26.9	225	350	605
27kg and over	\$60.75 per head	\$94.50 per head	\$163.35 per head

The above prices are for payment in full 14 days after slaughter with the only deduction being cartage.

#### 1.5.8 Dairy Beef Weaners

Refer also to *Section 1.4.6*

In Canterbury 100 kg Friesian bull calves sold for \$250 to \$300 per head in November 2003 compared with \$360 to \$400 in 2001.

#### 1.5.9 Cow Beef

##### (i) *AFFCO* Cow Pool 2004

The *AFFCO* Cow Pool 2004 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 2004. 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 2004 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 2004 suppliers receive priority of slaughter space at all times

##### (ii) *Richmond* Cow Pools

Refer to section 1.2.4 for *Richmond* Supply Plan 2003/2004

#### 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.

Grade	Weight (kg)	Hind Cents/kg Carcass Weight	Stag cents/kg Carcass weight
AP1	85.1 and over	\$3.12	\$3.22
AP2	75.1 – 85.0	\$3.52	\$3.62
AP3	65.1 – 75.0	\$4.00	\$4.10
AP4	55.1 – 65.0	\$4.21	\$4.31
AP5	45.1 – 55.0	\$4.11	\$4.21
AP6	35.1 – 45.0	\$3.22	\$3.32
AP7	0.1 – 35.0	\$2.55	\$2.65
AF1	Over Fat	\$3.24	\$3.34
AF2	Over Fat over 20mm	\$2.66	\$2.76
PD1	1 Primal Damaged	\$2.95	\$3.05
PD2	2 Primal Damaged	\$2.38	\$2.48
M1	Manufacturing	\$2.67	\$2.77
M2	Manufacturing	\$1.26	\$1.36
PLG	Prime Local	\$2.23	\$2.33

### 1.6.2 Venison Contracts

Forward Contracts 2001/2002 (2003/2004 figures unavailable at time of printing)

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 cents per kg			Hinds cents per 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.

### **Richmond Deer Plan 2003/2004**

#### Qualifying Requirements

- Minimum of 100 deer
- Suppliers must be accredited on the *Richmond* Farm Assured scheme
- All export deer must be processed by *Richmond*

#### Benefits

- Additional loyalty premium of 8 cents per kg at time of processing on carcasses grading AP or APC
- Suppliers processing in excess of 500 deer an additional 4 cents per kg will be paid as an “end of season” payment.
- Preference as to processing space during the chilled season
- Preferential access to any Richmond Deer Contract applicable during the season.

### **1.6.3 Venison Price Trends**

#### **(i) Average Schedule Price 60 kg AP Stag (2003).**

Prices are \$ per kg

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4.33	4.2	4.12	4.12	4.10	4.08	4.22	4.74	5.06	4.94	4.56	4.20

#### **(ii) Venison Schedule prices 1993 to 2003**

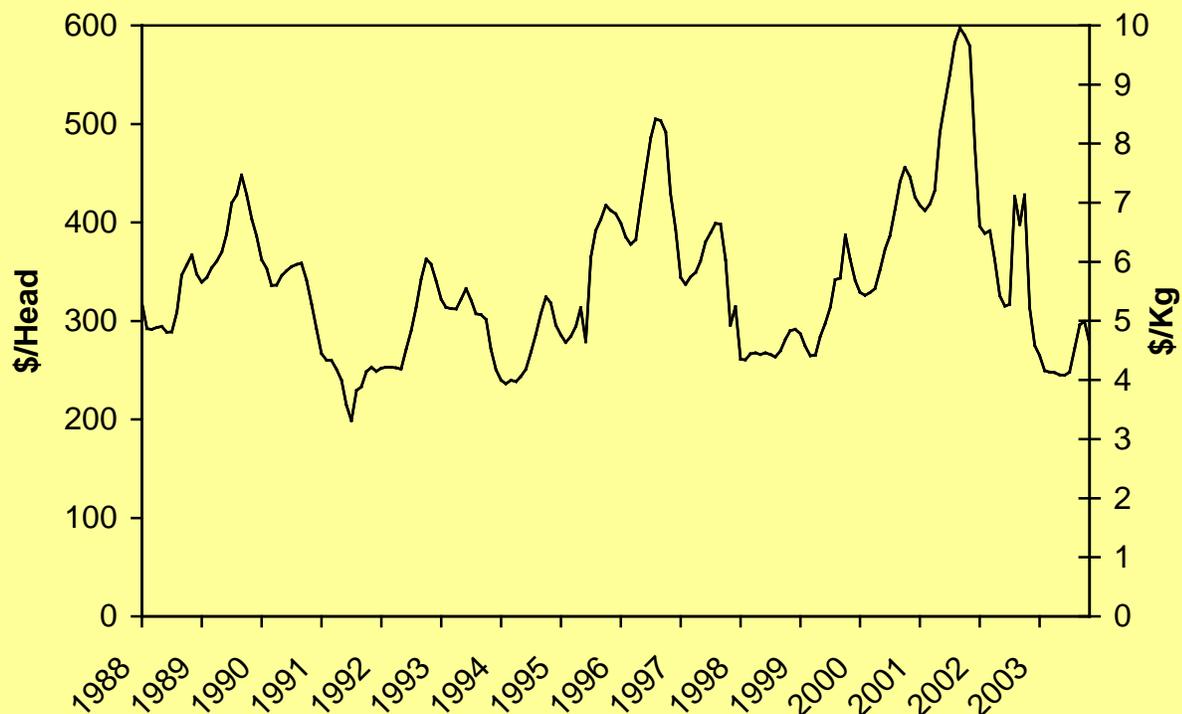
Prices are \$ per kg

1993- 1994	1994- 1995	1995- 1996	1996- 1997	1997- 1998	1998- 1999	1999- 2000	2000- 2001	2001- 2002	2002- 2003
\$4.74	\$5.78	\$7.53	\$6.77	\$5.17	\$5.22	\$6.25	\$8.12	\$6.8	\$4.54

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

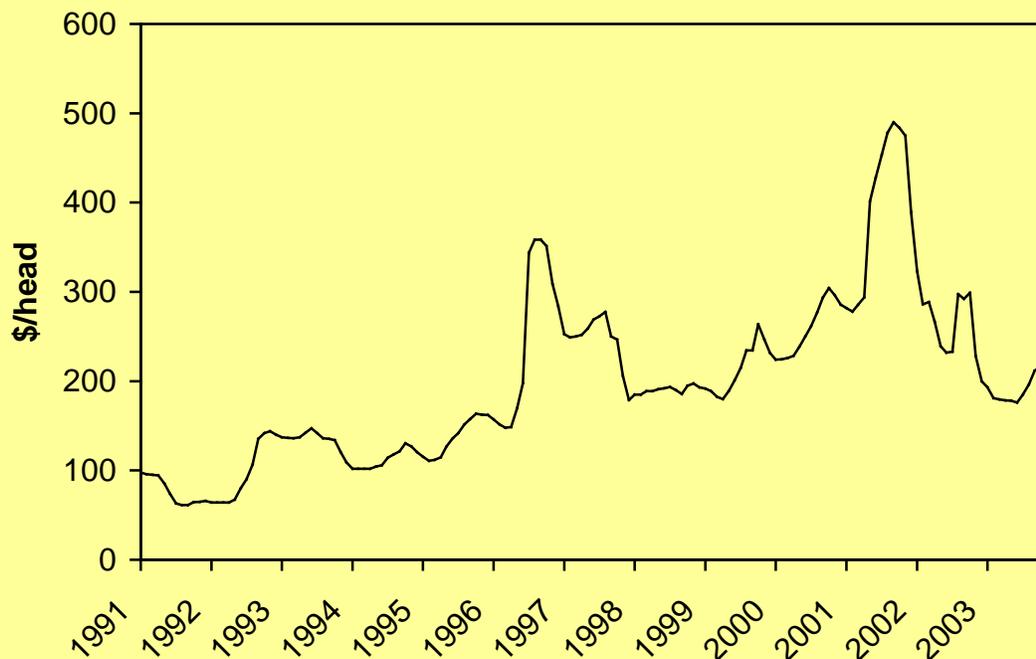
*Source: Deer Industry New Zealand*

**(iii) Average Schedule Price for AP Grade (60 kg stag) 1988 to November 2003.**



Source: Lincoln University; "N.Z. Farmer" , The Deer Farmer, Straight Furrow.

**(iv) Average Schedule Price for AP Grade (45 kg hind) 1991 to November 2003**



Note: Hind weight as from early 2002 has changed from 45kg to 50kg

Source: Lincoln University; "N.Z. Farmer" , The Deer Farmer, Straight Furrow.

### 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 1999 to 2004 are shown below.

#### (i) Red Deer

	\$ per head				
	1999/00	2000/01	2001/02	2002/03	2003/04e
Weaner hinds	150-200	230-270	250-280	150	80-120
Rising 18mth hinds	270-350	350-400	400-450	300	180-300
Mixed age hinds	300-400	450-500	500-550	320	280-350
Cull for age hinds	300	400	400	250	180-220
Weaner stags	170-200	250-300	250-300	150	100-180
Rising 18mth stags	300	400	400	300	200-350
MA velveting stags	500-800	600-800	600-800	550	300-400
Breeding stags	2000-58000	2500-78000	2500-78000	2000 - 78000	3500

e = estimate

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

	\$ per kg				
	1999/00	2000/01	2001/02	2002/03	2003/04e
Weaner hinds	3.00-3.75/kg	4.30-4.80/kg	4.50-5.00/kg	2.00 - 2.20/kg	1.30-2.00
Weaner stags	3.00-3.75/kg	4.50-5.00/kg	4.50-5.00/kg	2.20 - 2.50/kg	1.40-2.20

e = estimate

#### (ii) Wapiti and Wapiti cross

	\$ per head				
	1999/00	2000/01	2001/02e	2002/03	2003/04e
Weaner hinds	250-300	250-300	250-300	180	120
Rising 18mth hinds	400-500	400-450	400-450	300	220
Mixed age hinds	400-700	500-750	500-750	340	320
Weaner stags	200-600	300-600	300-600	200	150
Rising 18mth stags	300-600	400-600	400-600	350 - 450	300
MA velveting stags	600-1000	700-1000	700-1000	550	-
Breeding stags	2000-14000	2500-16000	2500-16000	2000 - 10000	-

e = estimate

Source: Wrightson.

## 1.6.5 Velvet

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

		2000/01	2001/02	2002/03
Super A		60 to 196	70 to 166	95 to 60
A 1 and 2		62 to 149	72 to 116	95 to 135
B 1 and 2		59 to 140	72 to 107	93 to 130
C 1 and 2		49 to 130	62 to 87	84 to 120
D 1 and 2		41 to 111	36 to 60	65 to 102
E		12 to 85	31 to 41	42 to 87
Manufacturing		2 to 75	9 to 43	19 to 95
Taiwan	1	99 to 155	104 to 128	110 to 148
	2	17 to 76	-	91
	3	39 to 139	69	80 to 112
	4	32 to 91	-	
Spiker	1	51 to 106	50 to 60	79 to 103
	2	22 to 76	22 to 46	61 to 70
	3	16 to 52	12 to 33	42 to 77
Regrowth		5 to 94	22 to 51	43 to 126
Overgrown		26 to 87	22 to 60	67 to 107
Damaged		18 to 116	24 to 99	45 to +123

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: NZ Game Industry Board.*

### (ii) Seasonal Average Prices for Red Grade Velvet.

		1999/00	2000/01	2001/02	2002/03
Average Weighted Pool Prices		113.8	79.12	96.10	98.9
Average Grade Pool Prices	A/B	\$151.11	101.84	114.74	117.18
	C/D	\$13030	73.98	100.88	102.95
Super A		157.79	159.27	132.64	141.13
A		153.40	106.03	116.41	118.33

B	147.99	95.66	112.18	115.33
C	140.62	81.67	107.47	108.45
D	109.95	58.58	84.23	89.45
E	79.20	41.33	70.12	76.10
Taiwan	121.33	114.30	123.87	123.96
Spiker	92.32	62.06	83.16	79.05
Damaged	100.82	59.58	86.18	93.08
Manufacturing	60	45.38	71.80	69.31
Regrowth	77.77	51.17	87.67	83.94

*Source: NZ Game Industry Board.*

### **(iii) Wapiti Velvet**

The following prices are from the South Island sales.

		<b>1999/00</b>	<b>2000/01</b>	<b>2002/03</b>	<b>2003/04</b>
Supreme		\$95 - \$125	\$135	120-160	90-100
EW1	- long	\$73 - \$80	\$110	105-125	75-85
	- medium	-	-	105-125	75-85
	- short	\$95 - \$118	\$132	111-150	85-95
EW2	- long	\$73 - \$95	\$110	102-122	70-80
	- medium	\$75 - \$102	-	103-122	70-80
	- short	\$89 - \$115	\$125	110-130	80-90
EW3	- long	\$70 - \$80	-	100-118	60-70
	- medium	\$72 - \$92	-	95-118	60-70
	- short	\$83 - \$110	\$111	100-127	65-75
EW4	- long	\$60	-	103-112	50-60
	- medium	\$65	-	103-112	50-60
	- short	\$77 - \$90	-	108-118	55-65
EW overgrown		\$51 - \$80	-	75-120	50-60

*Source: Wrightson Livestock, New Zealand Game Industry Board.*

### **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

These prices are net of all charges, but are a guide only and subject to change. All prices are for August 2003, except *PPCS* November 2003.

*Hellabys:*

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<b>Weight</b>	<b>Cents per kg</b>
0-8 kg	2.50
8-18 kg	2.60
18-21 kg	1.00

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*Affco:*

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8-9 kg	2.50
9-16 kg	2.60
16-18kg	2.50
18 kg and over	.30

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*Taylor Preston / C R Grace Ltd.:*

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<b>Grade</b>	<b>Weight range (kg)</b>	<b>Cents per kg</b>
GA	Under 4.0	0
GL1	4.0-5.9	40
GL2	6.0-9.0	170
GM1	9.1-12.9	220
GM2	13.0-15.9	220
GX	16.0-18.0	220
GH	18.1-21.0	80
GHH	21.1-23.0	80
GHHH	23.1 and over	80

---

*Progressive:*

<b>Grade Weight</b>	<b>Grade</b>	<b>\$ per head</b>
6	GL	8.20
8	GL	14.80
10	GL1	21.40
12	GM	28.00
14	GH	30.40
16	GH	33.40
18	GHH	33.20
20	GHH	19.40
22	GHH	22.50
24	GHH	25.60

*PPCS :*

<b>Weight kg</b>	<b>Grade</b>	<b>Cents per kg</b>
Under 4 kg	GA	Nil
4.0-11.0	GL	230
11.1-18.0	GM	270
18.1 & over	GH	195
4.0-11.0	GPL	70
11.1-18.0	GPM	70
18.0 and over	GPH	70

**(ii) 2002/2003 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.

	<b>2002/2003</b>	<b>2002/2003</b>	<b>2001/2002</b>
North Island	High	Low	Average
13.0 kg	45.79	29.75	46.44
15.0 kg	51.53	32.42	52.78
South Island	High	Low	Average
13.0 kg	41.28	41.28	35.59
15.0 kg	47.65	47.65	41.07

*Source: Meat Matters*

### 1.7.3 Meat Prices Trends

Average prices per head for 17 kg goats were as follows: (2000/2001 onwards figures are 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](http://www.caprine.co.nz).

Average prices for 12 kg goats were as follows: (2000/2001 onwards figures are for a 13 kg goat)

	North Island	South Island
2002/03	\$31.25	\$41.28
2001/02	\$38.50	\$41.28
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

Source: N.Z. Farmer, Meat Board News.

### 1.7.4 Goat Milk

Milk for processing in 2002/2003 was paid for on a milk solids basis at \$12.00 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 2001/2002 season prices were also \$12.00 per kg, compared with the 2000/2001 season price of \$10.25 per kg.

### 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:

<b>Grade</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
A O Super Fine Kid (ASFK0)	21.00	25.00	40.00	30.00	28.00
A Super Fine Kid (ASFK1)	17.00	18.00	28.00	22.00	21.00
B Super Fine Kid (BSFK1)	8.00	7.00	12.00	10.00	8.00
A O Kid (AK0)	15.00	17.00	25.00	21.00	20.00
A Kid (AK1)	11.00	15.00	20.00	15.00	17.00
A 2nd Kid (AK2)	7.00	7.00	15.00	10.00	10.00
A O Young Goat (AYG0)	8.00	12.00	15.00	13.00	13.00
A Young Goat (AYG1)	7.50	10.00	12.00	11.00	11.00
A 2nd Young Goat (AYG2)	6.00	7.00	8.00	7.00	7.00
B O Kid (BK0)	7.00	7.00	12.00	9.00	8.00
B Kid (BK1)	7.00	7.00	12.00	9.00	8.00
B O Young Goat (BYG0)	6.00	7.00	12.00	9.00	8.00
B Young Goat (BYG1)	6.00	7.00	12.00	9.00	8.00
B 2nd Young Goat (BYG2)	3.00	4.00	4.00	4.00	3.00
A Xbred Young Goat (AXBYG)	3.00	3.50	4.00	3.50	2.00
A O Adult (AH0)	6.00	7.00	9.00	7.00	7.00
A Adult (AH1)	5.00	6.00	8.00	7.00	6.00
BO Adult (BH0)	4.00	4.00	4.00	3.50	3.00
B Adult (BH1)	4.00	4.00	4.00	3.50	3.00
A 2nd Adult (AH2)	4.00	5.00	6.00	5.00	5.00
Inferior (XXB3)	.50	0.50	1.00	1.00	1.00
Stained Mohair (STN)	3.50	4.00	4.00	3.50	3.50
Heavily Stained Mohair (HSTN)	1.00	1.00	1.00	1.00	1.00
Cotted (COTT)	3.50	3.50	4.00	3.50	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.

<b>Grade:</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
Cashgora A	10.00	12.00	12.00	12.00	12.00
Cashgora B	8.00	10.00	10.00	8.00	6.00
Cashgora D	6.00	8.00	8.00	6.00	4.00
GY/BR (coloured) Cashgora	5.00	6.00	6.00	4.00	2.00

**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. All prices are \$ per kg.

	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
WW1/WC1	100.00	100.00	100.00	90.00	75.00
WW2/WC2	80.00	80.00	80.00	70.00	50.00
GY1/GY2/BR1/BR2	60.00	60.00	60.00	60.00	40.00

*Source: Mohair Fibres Ltd.*

## 1.7.6 Goat Livestock Sales

Typical prices in December of 2002 and 2003 were as follows: (\$/head)

		<b>2002</b>	<b>2003</b>
Does			
Texan/Zim /NZ Angora Purebreds	Adults	50 – 450	50 – 400
	Kids	40 – 300	40 – 150
Commercial Angora		30 – 80	30 – 75
Farmed Feral		25 – 40	20 – 50
Cashmere and Cashgora		25 – 50	20 – 40
Boer Purebred	Adults	200 – 700	100 – 600
	Kids	100 – 500	100 – 400
Boer Crossbred	Adults	40 – 100	40 – 100
	Kids	40 – 80	40 – 80
Wethers (Angora)	Adults	30 – 50	25 – 45
	Kids	20 – 50	20 – 45
Wethers	Adults	40 – 75	40 – 60
	Kids	20 – 50	20 - 50
Bucks			
Boer purebred (meat)		250 – 1000	250 – 1200
Boer crossbred		100 – 240	80 – 150
Cashmere and Cashgora		50 – 150	50 – 150
Texan /Zim /NZ Angora Purebred	Adults	100 – 800	100 – 700
	Kids	60 – 150	60 - 100

## 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 17<sup>th</sup> 2003 is presented here.

CODES	Pork			Super Pork	
	A under 35kg cents/kg	B 35.1-40.0kg cents/kg	C 40.1-45.0kg cents/kg	D 45.1-50.0kg cents/kg	E 50.1-55.0kg cents/kg
Code / Fat Measure					
1 6-9mm	280	300	335	350	340
2 10-12mm	280	300	335	350	340
3 13-15mm	250	270	280	285	285
4 16-18mm	200	200	200	205	210
5 19mm+	130	130	140	145	145

Bacon							
CODES	F 55.1 - 60kg cents/kg	G 60.1 - 65.0kg cents/kg	H 65.1- 70kg cents/kg	I 70.1- 75.0kg cents/kg	J 75.1- 80.0kg cents/kg	K 80.1 - 85.0kg cents/kg	L 85.1 - 90.0kg cents/kg
Code / Fat Measure							
1 6-9mm	335	330	325	320	305	290	275
2 10-12mm	335	330	325	320	305	290	275
3 13-15mm	290	285	285	280	270	250	235
4 16-18mm	220	215	215	210	205	180	165
5 19mm+	150	145	145	140	135	135	135

Weight ranges are kg hot carcass weight

Manufacturing pigs (choppers) over 90.1kg are paid for at 125 cents per kg (head and skin off).

X grade Less 0 cents/kg (Entires 75.1 to 85.0kg)

Y grade Less 30 cents/kg (One carcass fault)

Z grade Less 50 cents/kg (over one fault)

Deductions (per pig):	<u>LML</u>	<u>AMP</u>
Pork Industry Board Levy	\$4.50	\$4.50
MAF Inspection Fees	\$3.00	\$2.50
Freight Levy	<u>\$2.50</u>	<u>\$2.00</u>
Total	<u>\$10.00</u>	<u>\$9.00</u>

Regional Schedule Prices (September 2003)

Sale Weight	Auckland/Waikato		Manawatu		Canterbury	
	\$/kg	Trend	\$/kg	Trend	\$/kg	Trend
Pork (D1)	3.60-3.65	Nc	3.50	Nc	3.40-3.45	Nc
Bacon (H2)	3.35	Nc	3.25	Nc	3.15	Nc
Choppers 1.	1.25	Nc	1.25	nc	1.00-1.40	Nc

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

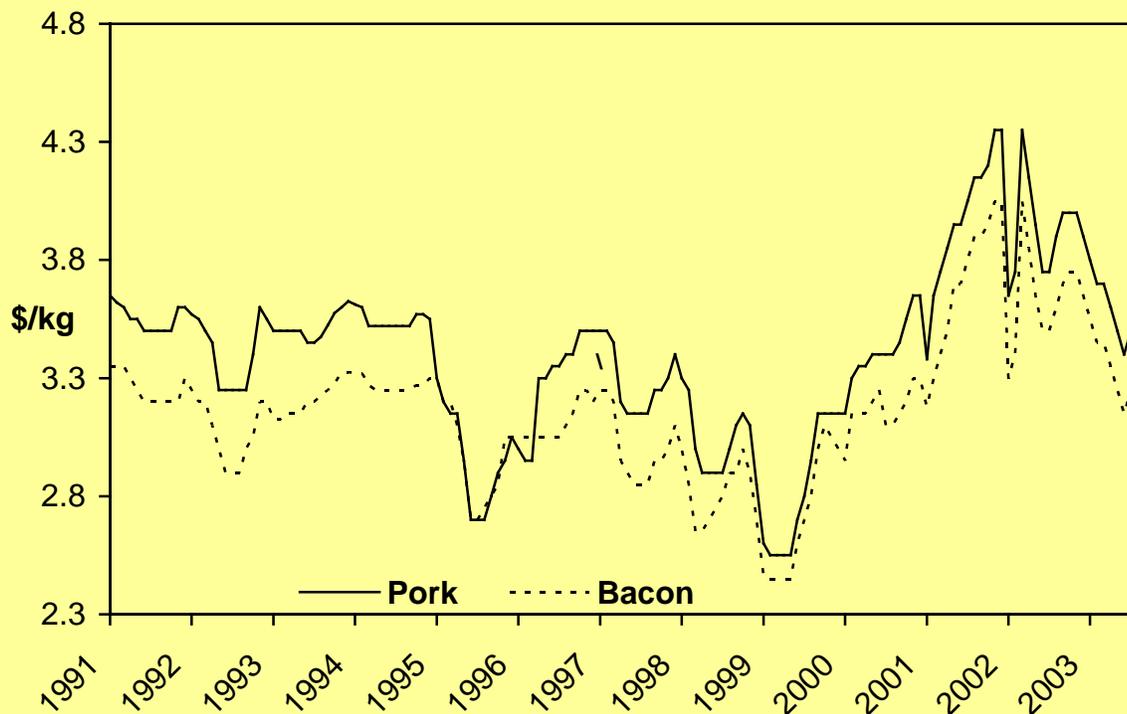
Prices are quoted for the D1 schedule (45.1 to 50.0 kg weight range, 6 to 9 mm back fat) and the H2 schedule (65.1 to 70.0 kg carcass weight range, 10 to 12 mm back fat). The prices do not account for volume or quality premiums that are available from many buyers.

*Source: Pork Outlook, December 2003.*

### 1.8.2 Average Pigmeat Returns 1991 to 2003

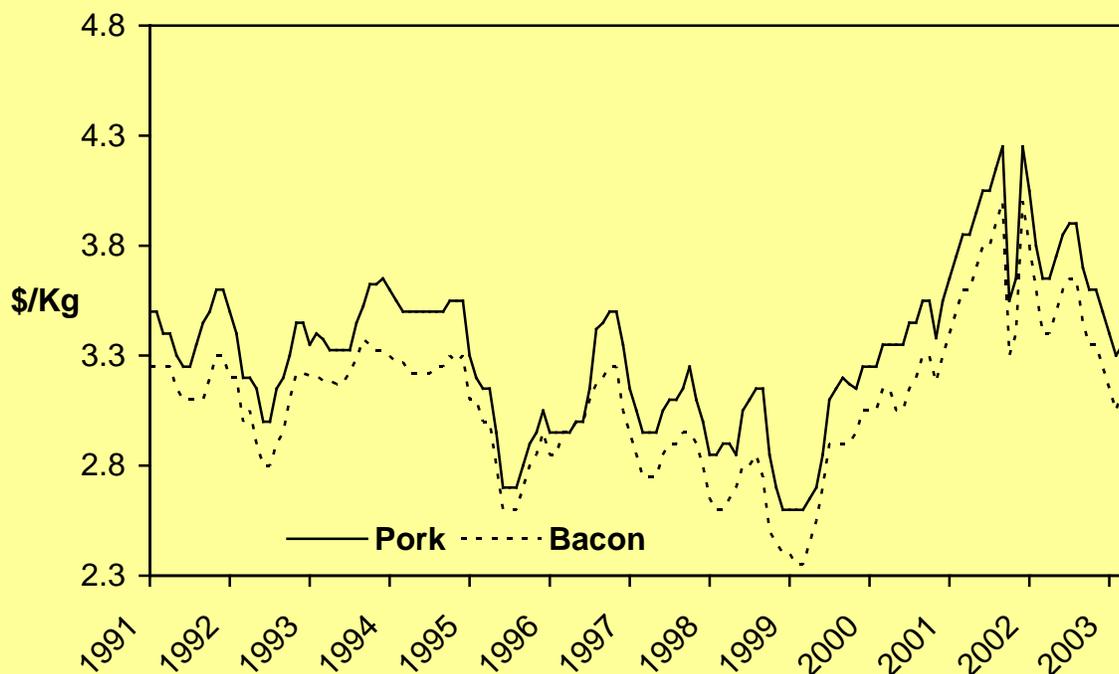
The following are average monthly return for pigs, on a per kg basis, sold in three regions from 1991 to 2003 (D1 Pork and H2 Bacon).

#### Waikato



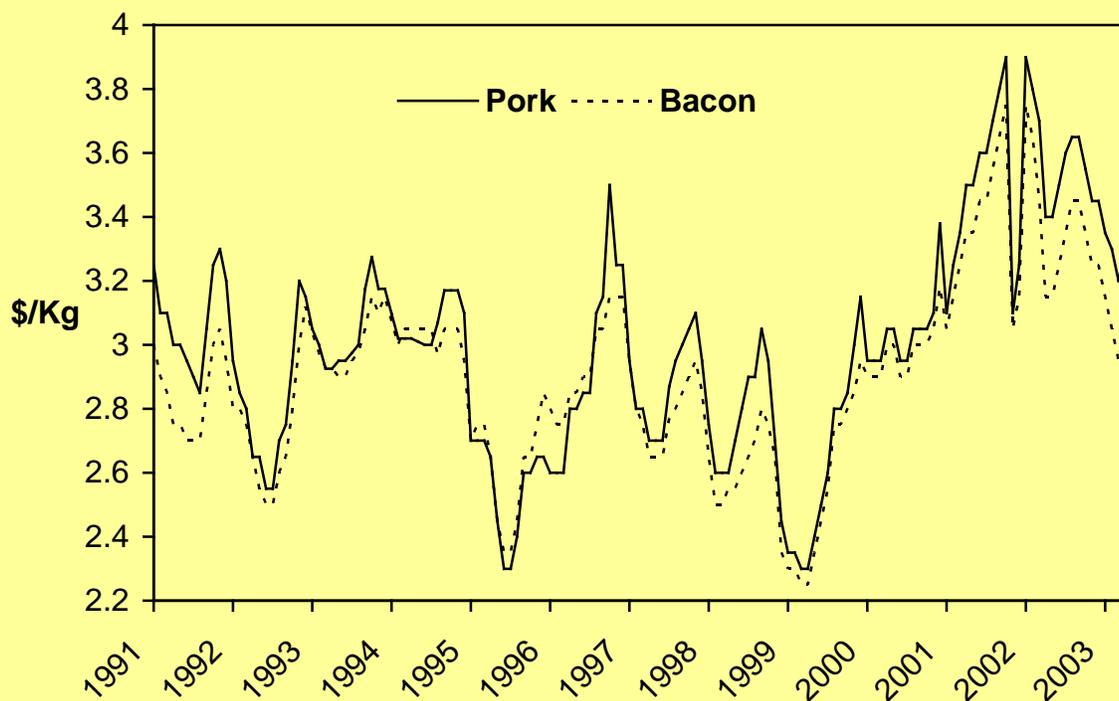
Source: Pork Industry Board

#### Manawatu



Source: Pork Industry Board

## Canterbury



Source: Pork Industry Board

### 1.8.3 Live Pig Sales

		Canterbury 2002/2003	North Island (Jan to June 2003)	North Island (Jul to Nov 2003)
		\$ per head	\$ per head	\$ per head
Weaners	- small	34 - 45	35 - 50	40 - 55
	- medium	45 - 55	55 - 65	60 - 75
	- large	55 - 65	70 - 90	80 - 95
Slips		60 - 70	90 - 105	110 - 120
Stores	- large	80 - 90	90 - 110	90 - 125
	- small	70 - 90	70 - 85	60 - 80
Porkers	- heavy	120 - 140	120 - 160	140 - 180
	- light	110 - 120	85 - 115	105 - 135
Bacon	- heavy	180 - 190	170 - 200	180 - 210
	- light	150 - 160	140 - 160	150 - 175
Sows		-	-	-
Choppers	- heavy	180 - 250	110 - 170	120 - 180
	- light	90 - 140	60 - 100	75 - 115
In Pig Sows		200 - 300	180 - 450	190 - 420

Source: Wrightson

## 1.8.4 Live Pig Price Trends

### South Island

		2002/03	2001/02	2000/01	1999/00
		\$ per head	\$ per head	\$ per head	\$ per head
Weaners	- small	20 - 40	35 - 45	20 - 30	14 - 30
	- medium	40 - 50	45 - 55	30 - 40	-
	- large	60 - 70	55 - 65	40 - 50	30 - 50
Slips		60 - 80	70 - 80	50 - 70	50 - 70
Stores	- large	90 - 100	95 - 100	90 - 110	70 - 85
	- small	70 - 90	85 - 95	70 - 80	-
Porkers	- heavy	12 - 140	130 - 160	160 - 180	85 - 120
	- light	110 - 120	120 - 130	100 - 150	-
Bacon	- heavy	180 - 190	180 - 220	180 - 260	120 - 180
	- light	150 - 160	150 - 180	170 - 180	-
Sows				-	140 - 260
Choppers	- heavy	180 - 250	280 - 400	300 - 500	110 - 150
	- light	90 - 180	120 - 160	100 - 300	40 - 80
In Pig Sows		200 - 300	250 - 350	250 - 400	160 - 260

### North Island

		2003	2002	2001	2000
		\$ per head	\$ per head	\$ per head	\$ per head
Weaners	- small	35 - 55	35 - 50	35 - 50	35 - 60
	- medium	55 - 75	60 - 90	52 - 65	52 - 75
	- large	70 - 95	95 - 115	68 - 80	68 - 100
Slips		90 - 120	85 - 115	80 - 90	80 - 115
Stores	- large	90 - 125	90 - 135	100 - 120	100 - 135
	- small	60 - 85	70 - 90	75 - 95	75 - 110
Porkers	- heavy	120 - 180	130 - 180	160 - 180	160 - 200
	- light	85 - 135	90 - 130	110 - 130	110 - 160
Bacon	- heavy	170 - 210	210 - 245	190 - 210	190 - 260
	- light	140 - 175	175 - 200	160 - 180	160 - 220
Sows					
Choppers	- heavy	110 - 180	160 - 290	140 - 190	140 - 260
	- light	60 - 115	80 - 150	90 - 130	90 - 160
In Pig Sows		180 - 450	190 - 460	160 - 300	160 - 450

The trend over most years shows a drop in prices from January to March, leveling through to August, and then increasing through to Christmas.

*Source: Wrightson Ltd*

## **1.9 RATITES (EMUS AND OSTRICHES)**

*Section provided by Canterbury Emu and Ostrich Marketers Ltd.*

### **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 continues to be 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.

Unfortunately the high cost of maintaining “the Tick” has meant that both industries have allowed it to lapse.

The emu industry is struggling to enter the commercial phase, with only a few farmers/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**

#### **Ostrich**

Ostriches are very similar to venison in yields from liveweight to carcass weight to final meat yield. Farmers contracted by NZOE are being paid an all up schedule which 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. In the North Island ostriches are being packed and processed at Fielding currently for export to the EU. At the time of printing a second container of meat was being loaded and with the skins being sold to Korea the final net return to the farmer is in the vicinity of \$300.00 per bird. Manufacturing (ie birds over 16 months) prices have not changed much since 1999, being currently between \$0.50 and \$1.20 per kg (hide included).

New export meat markets (mainly Europe) have been developed with very pleasing results, protocols for Canada are being completed and this market looks very exciting. 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, but as hide numbers have dwindled the price though has firmed.

The Schedule in past seasons has see-sawed reaching a low of \$4.50 during the 2002/2003 season, the fact an export plant lost its licence to export to the USA was a major factor in the schedule dipping so low but now that that has been restored the schedule opened for the 2003/2004 season at \$7.00 per kg which with the NZ\$ at US\$0.60 (compared to US\$0.45 12 months ago) is very gratifying.

With the US\$ continued rise this has meant that the January 2004 schedule, has come back and is now set at \$6.80. NZOE have a minimum guarantee of \$6.00 per kg (carcase must be over 44kg) for all their contracted suppliers for the 2003/2004 season. The local trade schedule which struggles to keep up with its export brother (demand at the higher prices) and the same as the venison industry, manages to maintain a supply to those up market establishments. Supply is mainly to the hospitality trade and even though the public like the product when dining out, there is insufficient demand to warrant too many butchers/ delicatessens handling the meat for general sale.

With the new Meat Act there are currently two export meat plants (Fielding and Gore) processing ostrich for export and some for local trade. A South Island export plant is preparing its RMP or risk management plan to enable it to process ostrich/emu and a SI local trade plant is about to start up again.

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

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

## 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 was recently awarded a MAF Sustainable Farming Fund grant in 2002 with a view to researching the industry from the breeder through to incubation, chick rearing and growing out to processing. This has now been completed and the manual has been printed and is available through the *New Zealand Ostrich Association*. The industry has received an ongoing grant from the sustainable farming fund to initiate research into the mineral and vitamin requirements of the Ostrich. This research is being carried out by Professor Andrew Sykes and his team at Lincoln University.

Information from the manual is available to members only. The president of the Association is Mr Roy Beere who can be contacted by email on [gidleigh@xtra.co.nz](mailto:gidleigh@xtra.co.nz)

### 1.9.4 Livestock Prices

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 2004

	Processing Stock/Breeding Stock
Chicks (day old)	\$50 to \$70
Chicks (3 months, minimum weight 30 kg)	\$110 to \$180
Yearlings	\$320 to \$580
Adult cull stock	\$50 to \$120
Maiden breeders	\$300 to \$500
Proven breeders	\$250 to \$500

## Emus

With little demand in recent seasons values have been difficult to establish

Prices as at January 2004

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

### 1.9.5 Livestock Price Trends

The following prices (\$ per head) are those ruling in January of each year.

	2004	2003	2002	2001
Ostrich				
Chicks (3 plus months)*	110-180	110-180	110 - 300	100 - 300
Yearlings	320-580	320-580	320 - 800	250 - 800
Adults/Breeders	250-500	250-500	400 - 1000	200 - 1000
Emu				
Chicks (2 plus months)*	40-60	40-60	40 - 80	40 - 80
Yearlings	100-150	100-150	100 - 175	100 - 250
Adults/Breeders	200	200	150 - 400	200 - 500

\*prices for chicks suitable for growing out to processing age

	\$ per head			
	2000	1999	1998	1997
Ostrich				
Chicks (3 plus months)*	100 – 300	125 - 300	150 - 500	3,000 - 8,000
Yearlings	220 – 800	350 - 1000	500 - 5,000	10,000 - 20,000
Adults/Breeders	300 – 800	750 - 2000	1,500 -10,000	20,000 - 40,000
Emu				
Chicks (2 plus months)*	50 – 100	75 - 125	150 - 750	3,000 - 4,000
Yearlings	100 – 200	250 - 350	500 - 2,000	6,000 - 15,000
Adults/Breeders	250 – 750	300 - 850	1,500 - 5,000	15,000 - 25,000

\*prices for chicks suitable for growing out to processing age

## 1.10 CAMELIDS

*Section provided by Alpaca and Llama Association of New Zealand.*

### 1.10.1 Introduction

Established as livestock animals in the developed world for just over fifteen 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

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 usually ranges from 20 to over 40 microns and depends on age, nutrition, and genetics of the animals surveyed.

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.

#### Alpaca

Young females (solid colours)	\$4000 - \$10000
Young females (multi-colour, skewbald etc)	\$3000 - \$4000
Old females (approximately 10 years) solid / multi colour	\$2000 - \$4000 / \$2000
Certified breeding males (white, off white, Peruvian)	\$5000+
Certified breeding males (coloured, non-white, Chilean)	\$2000 - \$5000
Wethers (any colour)	\$300 - \$1000

#### Llama

Young females	\$4000 - \$8000
Old females	\$2000 - \$4000
Breeding Males	\$2000 - \$5000
Wethers	\$600 - \$1500

## 1.11 CROPS

### 1.11.1 Wheat

#### (i) Contract prices

##### Premium and Gristing Wheat - South Island Contracts

Contracts delivered to one South Island Company

Premium wheats:	Monad and Domino
Premium 1 wheats:	Otane, Kohika, Torlesse, Regency and Bakker
Gristing 1 wheat:	Commando
Gristing 2 wheats:	Amarok, Sapphire and Isengrain

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\$ per tonne				
Protein %	Premium	Premium 1	Gristing 1	Gristing 2
13.2 +	333	318	308	303
13.0 – 13.1	332	318	307	302
12.8 – 12.9	331	316	306	301
12.6 – 12.7	330	315	305	300
12.4 – 12.5	329	314	304	299
12.2 – 12.3	328	313	303	298
12.0 – 12.1	327	312	302	297
11.8 – 11.9	326	311	301	296
11.6 – 11.7	325	310	300	295
11.4 – 11.5	324	309	299	294
11.2 – 11.3	322	307	298	293
11.0 – 11.1	320	305	297	292
10.8 – 10.9	318	303	296	291
10.6 – 10.7	316	301	295	290
10.4 – 10.5	314	299	293	250
10.2 – 10.3	312	297	291	250
10.0 – 10.1	310	295	290	250
< 9.9	250	250	250	250

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A storage increment of 8 cents per tonne per day will be paid from 1 May in year of harvest.

## **Durum Wheat - South Island Contracts**

Contracts delivered to one South Island Company

Farina Durum

<b>Protein %</b>	<b>\$ per tonne</b>
13.6 +	400
13.4 – 13.5	395
13.2 – 13.3	390
13.0 – 13.1	385
12.8 – 12.9	375
12.6 – 12.7	372
12.4 – 12.5	367
12.2 – 12.3	362
12.0 – 12.1	357
11.8 – 11.9	352
11.6 – 11.7	347
11.4 – 11.5	342
11.2 – 11.3	337
11.0 – 11.1	335

Below 11.0 option to purchase.

A storage increment of 8 cents per tonne per day will be paid from 1 May in year of harvest.

## **Purple Wheat - South Island Contracts for 2004**

Contracts delivered to one South Island Company

	<b>\$ per tonne</b>
Amethyst	350

A storage increment of 8 cents per tonne per day will be paid from 1 May in year of harvest.

## **Soft Wheat - South Island Contracts for 2004**

Contracts delivered to one South Island Company

Claire Wheat

<b>Protein %</b>	<b>\$ per tonne</b>
10.6 +	265
Up to 10.5	275

A storage increment of 6 cents per tonne per day will be paid from 1 May in year of harvest.

## MillingWheat - North Island Contracts for 2004

(Delivered to Palmerston North)

Protein %	Monad \$ per tonne	Torlesse, Otane, Kohika \$ per tonne
13.5+	370.00	
13.2 to 13.5	367.00	
13.0 to 13.1	364.00	334.00
12.8 to 12.9	361.00	331.50
12.6 to 12.7	358.00	328.50
12.4 to 12.5	355.00	326.00
12.2 to 12.3	353.00	323.00
12.0 to 12.1	350.00	320.00
11.8 to 11.9	347.00	317.00
11.6 to 11.7	344.00	314.00
11.4 to 11.5	341.00	312.00
11.2 to 11.3	338.00	309.00
11.0 to 11.1	335.00	306.00
10.8 to 10.9	332.00	304.00
10.6 to 10.7	329.00	300.00
10.4 to 10.5	320.00	296.00
10.2 to 10.3	310.00	280.00
10.0 to 10.1	290.00	-
9.8 and below		-
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 2004.

*Source : Goodman Fielder*

Milling wheat 2004 contract prices offered by *Wrightsons* at 12% protein are \$312 per tonne.

### Biscuit Wheat

2004 contract prices offered by *Wrightsons*

	Protein	Price
Biscuit cultivars	10.5%	\$275

## Feed Wheat

Canterbury:

Canterbury contracts for 2003/2004 were \$250 per tonne, compared with the 2002/2003 contract price of \$280 per tonne.

*Source: Wrightson Ltd*

## Seed Wheat

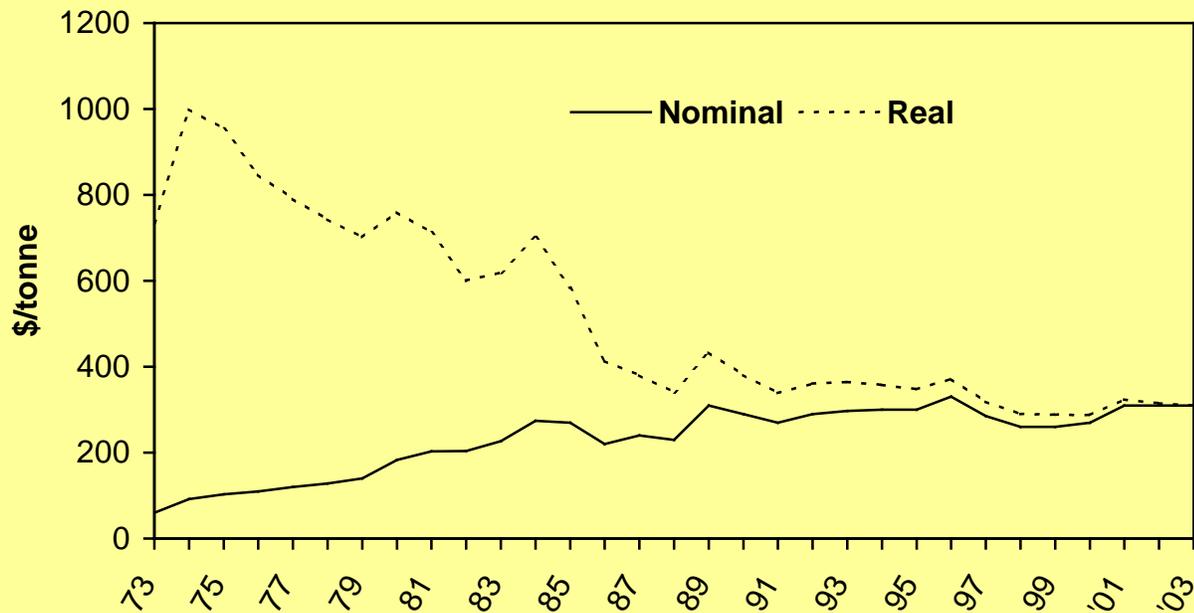
Seed crops will usually be based on milling or biscuit wheat contract prices with a premium of 7% over the milling price for 1st generation and 10% over the milling price for basic seed, if it meets specification.

**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 1973 to 2003 (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 2003 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) 2004 Contract Prices:

#### Malting

*International Malting Company (NZ) Ltd* contract price for malting barley in the South Island for the 2004 harvest is \$293.10 at 0% moisture, (\$250.00 at 13% moisture) per tonne, net delivered to the Ashburton depot. The North Island contract price is \$354.65 at 0% moisture (\$305.00 at 14% moisture) per tonne, net delivered prompt at harvest to Marton.

This compares with prices of \$290 at 13% South Island, and \$330 at 14% North Island for the 2003 harvest. The 2001/02 South Island contract price was \$344.87 at 0% moisture (\$300 at 13.0% moisture), 2000/01 price of \$258.62 at 0% moisture (\$225 at 13% moisture), per tonne net delivered to Ashburton. North Island contract prices for 2001/02 were \$395.35 at 0% moisture (\$340 at 14.0% moisture), and 2000/01 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 2004 up to and including 31 December 2004, will be \$0.05 per day.

Barley delivered must conform to a varietal purity specification of 99% and a minimum germination of 95%.

Maximum allowances permitted are as under:

Screenings (2.37mm 6A screen)	5%
Skinned and broken	5%
Growth splits	3%
Foreign matter	0.5%
Foreign seeds	10 seeds per 500gm of barley
Protein (nitrogen 2.00%)	12.5%

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 (1999/2000 harvest), compared with the North Island price of \$290.70 per tonne (at 0% moisture) net, delivered Marton.

#### Feed Barley

The contract price for feed barley for 2004 is \$230 per tonne.

For 2003 the contract price was \$260 per tonne, compared with \$220 per tonne in 2001/2002. The spot price in 2001 went as high as \$350 per tonne.

*Source: Wrightson Ltd.*

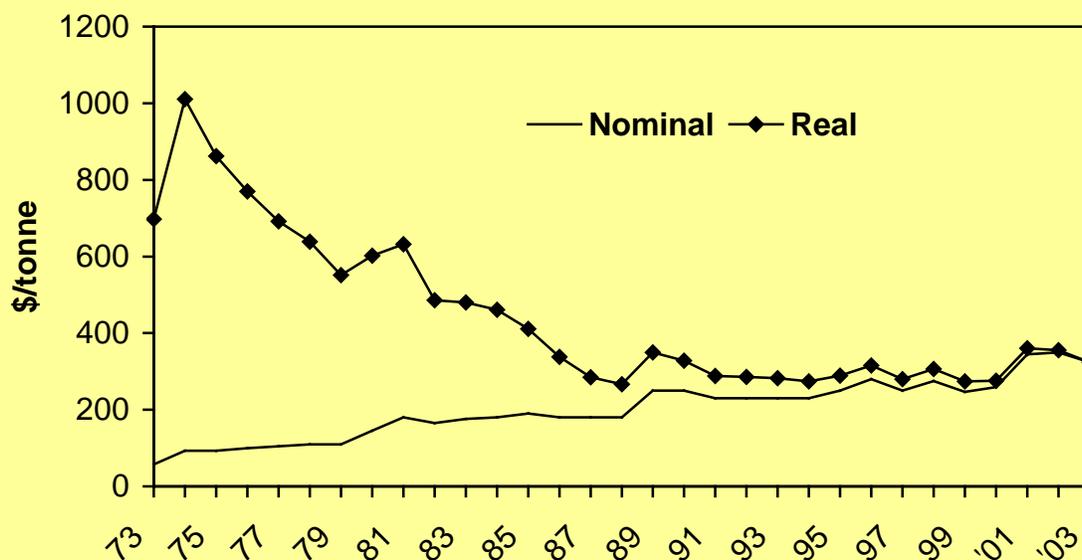
## Seed

*International Malting Company (NZ) Ltd* seed contract price for 2003/2004 is the same as the malting contract, plus a \$35 per tonne premium paid on the machine dressed (MD) weight.

### (ii) Barley Price Trends 1973 to 2003

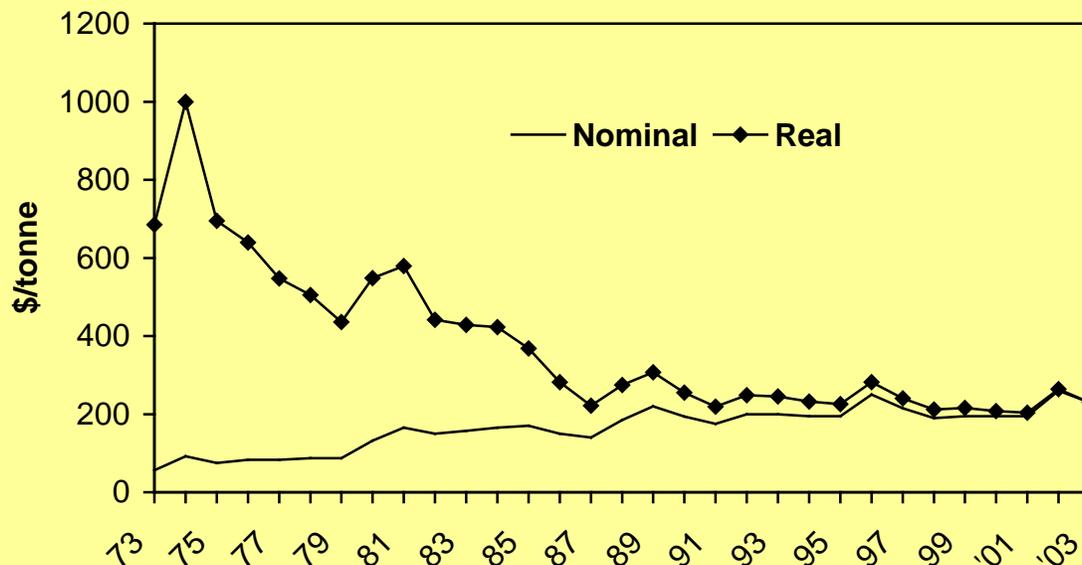
In the following two graphs the "Nominal" prices are the contract prices paid to South Island growers at harvest each year. The "Real" prices are based on the value of the \$NZ in December 2003, and are adjusted for inflation using C.P.I. figures for each calendar year, as published by the *Reserve Bank of New Zealand*.

#### N.Z. Malting Barley Prices 1973 to 2003 (Harvest Years):



Source: Lincoln University

## N.Z. Feed Barley Prices 1973 to 2003 (Harvest Years):



Source Lincoln University.

### 1.11.3 Oats / Oaten Hay

#### (i) Oats

South Island contract price for 2004 is \$290 per tonne delivered to Dunedin (*Harraways*), compared with \$300 on-farm price in 2003 or \$320 delivered to Dunedin. Prices for 2001/2002 were \$285 to \$320, and in 1999/2000 was \$215 per tonne delivered to Gore (*Fleming and Co*).

The actual price payable is determined by reference to the Quality Index; deductions being made for high screening and low kernel weight.

Mid Canterbury Contracts.

*Peter Cates Ltd* offered prices of \$300.00 per tonne for field dressed oats for the 2004 harvest.

*Wrightson* offered oat contracts for the 2004 season at \$290 per tonne, delivered to the buyers nominated consolidation points at Ashburton, Christchurch or Timaru. This compared with the 2003 season at \$315 per tonne and \$300 per tonne in 2002.

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.

#### (ii) Oaten Hay

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.

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	\$370 per tonne 2003/2004
	\$390 per tonne 2002/2003
	\$390 per tonne 2001/2002
	None contracted 2000/2001
Prussian peas	\$370 per tonne 2003/2004
	\$420 per tonne 2002/2003
	\$400 per tonne 2001/2002
	\$320 per tonne 2000/2001
Marrowfat peas	\$680 per tonne (0-5% bleach) 2003/2004
	\$600 per tonne (6-12% bleach) 2003/2004
	\$520 per tonne (13-30% bleach) 2003/2004
	\$330 per tonne (>30% bleach) 2003/2004
	\$520 per tonne (0-5% Bleach) 2002/2003
	\$520 per tonne (6-12% bleach) 2002/2003
	\$450 per tonne (13-30% bleach) 2002/2003
	\$280 per tonne (>30% bleach) 2002/2003
	\$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
	\$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
White Peas	\$340 per tonne 2003/2004
	\$380 per tonne 2002/2003
	\$340 per tonne 2001/2002
	\$270 per tonne 2000/2001

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

*Source: Peter Cates Ltd.*

## Field Pea Price Trends

	January 2001	January 2002	2003 Harvest	2004 Harvest
Prussian Peas	\$340 to \$350	\$380 to \$390	-	-
Rondo	\$350 to \$360	\$380 to \$390	-	-
Maple	Nil	\$380 to \$390	\$390	\$370
White	\$270 to \$280	\$350 to \$360	\$360	\$340
Marrowfat	\$450 to \$520	\$430 to \$510	\$510	\$680
Feed	\$250	\$320 to \$330	\$350	\$320

### (ii) Garden peas

#### Canterbury

	\$ per tonne machine dressed		
	2003/2004	2002/2003	2001/2002
Freezer varieties	\$600 to \$650	\$560 to \$600	\$500 to \$570
Onwards	\$600 to \$650	\$570 to \$600	\$500
Masseys	\$700	\$700	\$570 to \$600
Alderman	\$700	\$700	\$600 to \$650

### (iii) Freezer peas

(See *Section 1.14.15.*)

## 1.11.5 Maize/Maize Silage

### (i) Maize

Grower Price per tonne at 14% moisture

	Waikato/ King Country	Bay of Plenty	East Coast/ Gisborne	Manawatu/ Wairarapa
<b>2003/04 Forecast</b>				
In paddock price	\$275 to \$310	-	\$210 to \$230	-
Dryer price	\$275	\$275	\$235 to \$275	-
<b>2002/03 Actual</b>				
In paddock price	-	-	\$250 to \$280	-
Dryer price	\$315 to \$325	\$315 to \$325	\$275 to \$325	-
<b>2001/02 Actual</b>				
In paddock price	\$270	\$260	\$245	\$265
Dryer price	\$300	\$300	\$300	\$300

## (ii) Maize Silage

Sale Price Ranges per kilogram DryMatter

	North Island	South Island
<b>2003/04 Forecast</b>		
Paddock standing	14 to 17 cents / kg DM	22 to 25 cents per kg DM
<b>2002/03</b>		
Paddock standing	15 to 18 cents / kg DM	-
<b>2001/02</b>		
Paddock standing	17 to 19 cents / kg DM	15 to 19.5 cents / kg DM

### 1.11.6 Ryecorn

South Island: The 2003/2004 contract price for seed is \$350 per tonne this has remained unchanged from the previous two seasons. This compares with \$320 per tonne in 2000/2001 and \$290 to \$300 in 1999/2000.

*Source: Peter Cates Ltd.*

### 1.11.7 Lentils

Minimum contract price offered by *Peter Cates Ltd.* was \$550 per tonne for the 2003/2004 season. In 2002/2003 the minimum price was \$500 to \$550 per tonne for red lentils and \$600 to \$650 per tonne for yellow lentils. This remained the same from the previous two seasons.

### 1.11.8 Triticale

Growers in 2003/2004 received \$280 per tonne for seed, this price has remained the same for the previous two seasons, compared with \$250 per tonne in 2000/2001 and \$220 in 1999/2000.

*Source: Peter Cates Ltd.*

### 1.11.9 Lupins

The price for blue lupins (machine dressed) in the 2002/2003 season was \$450 to \$470 per tonne. The 2001/2002 season price was \$420 per tonne, compared with \$420 to \$450 in 2000/2001.

White lupins in the 2002/2003 season (machine dressed) sold for \$550 per tonne. In 2001/2002 prices were similar at \$500 to \$550 per tonne, and \$550 in 2000/2001.

### 1.11.10 Oilseed Rape

Very few crops are now grown. For the 2001/2002 season growers could expect between \$1300 and \$1450 per tonne (dressed). This was very similar to the 2000/2001 season.

### **1.11.11 Linseed**

Canterbury growers could expect to receive \$580 per tonne for the 2003/2004 season, this price has remained the same for the previous two seasons. This compares with \$520 per tonne in 2000/01 and \$450 per tonne in 1999/2000.

*Source: Peter Cates Ltd*

### **1.11.12 Evening Primrose**

Current price to growers for the 2004 harvest is \$3.00 per kg. None was grown in the 2002/03 season. Prices for the 2001/02 season were in the region of \$2.85 to \$3.00 per kg.

### **1.11.13 Borage**

The 2002/2003 season price was \$6.10 per kg. This was slightly up on the 2001/02 season of \$6 per kg, similar to 2000/2001.

## 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 2003/2004 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

<b>Ryegrasses</b>	<b>\$ per kg</b>
Italian – All proprietary cultivars	1.60
Hybrid – All proprietary cultivars	1.70
Perennial – All proprietary cultivars	1.80
Grasslands Nui	1.70
Grasslands Ruanui	1.70
Grasslands Manawa	1.20
Grasslands Moata	1.25
Grasslands Tama	1.25
Uncertified	1.00
Grazmore	2.00
Gromore	1.50
Gromore Plus	1.50
Gwendal	2.00
<b>Timothy</b>	
All proprietary cultivars	5.50
Grasslands Kahu	4.00
<b>Cocksfoot</b>	3.00
<b>Tall Fescue</b>	3.50
<b>Brome</b>	1.60
<b>Phalaris</b>	5.00
<b>Crested Dogtail</b>	4.00
<b>Plantain</b>	3.25

### 1.12.2 Turf / Amenity Species

	<b>\$ per kg</b>
Browntop	8.00
Yarrow	5.00
Creeping Bent	2.50
Turf Fescues	1.80
Chewings Fescue	3.00
White Mustard	2.00
Yorkshire Fog	6.00

### 1.12.3 Legumes

<b>White Clover</b>	<b>\$ per kg</b>
Grasslands Pitau	4.00
Grasslands Huia	3.50
Uncertified White clover	3.00
<b>Red Clover</b>	
Grasslands Pawera	8.50
Grasslands Turoa	5.50
Redmore	5.00
Uncertified	4.00
<b>Lucerne</b>	5.00 to 8.00
<b>Lotus</b>	3.00

### 1.12.4 Chicory

	<b>\$ per kg</b>
Proprietary cultivars	\$ 7.00

### 1.12.5 Brassicas

	<b>\$ per kg</b>
Kale	3.00
Swedes	1.70
Turnips	1.70
Forage Rape	1.60

*Source: New Zealand Grain and Seed Trade Association Inc.*

## 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 Market Returns

2003 prices cannot be supplied, as the information is too sensitive in the deregulated environment.

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

<b>Average across all grades and sizes.</b>						
<b>Enza Grade</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
Annaglo	-	24.79	12.53	15.05	15.27	14.33
(Royal Gala)						
Belle Cox	-	-	-	-	-	8.21
(Cox's Orange)						
Braeburn	18.67	17.71	12.20	7.88	14.18	9.73
Brookfield	-	-	-	15.05	16.64	-
(Royal Gala)						
Canta Red	-	-	-	-	-	5.99
Cascade	-	54.99	-	-	-	-
Coromandel Red	20.24	22.31	12.28	6.39	10.65	6.16
Cox's Orange	23.85	18.98	11.16	12.68	13.60	85.38
Pippin						
Fiesta	24.17	21.01	11.31	14.42	11.04	1.28

**Average across all grades and sizes.**

<b>Enza Grade</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
Fuji	26.05	26.70	19.61	14.54	17.42	11.34
Gala	23.29	20.14	13.42	8.34	14.05	12.1
Galaxy	-	-	-	15.05	15.21	13.46
Golden Delicious	17.54	17.45	11.47	7.98	6.90	8.72
Granny Smith	23.15	19.25	21.10	7.06	7.22	11.92
GS48	-	19.61	20.17	10.17	8.35	12.24
Hillwell	-	-	-	-	-	9.37
Locbuie	-	-	-	-	-	9.17
Moonglo	36.24	27.17	-	-	-	-
Pacific Beauty	25.32	21.98	26.74	18.83	-	-
Pacific Queen	20.64	-	-	9.01	-	-
Pacific Rose (Scired)	21.84	21.57	19.47	-	-	-
Pacific Rose (Sciros)	21.84	23.47	16.12	12.86	20.30	15.95
Pink Lady	29.81	23.33	14.52	20.75	27.24	15.18
Red Delicious	14.92	10.98	10.12	3.69	6.97	.46
Regal	-	-	-	9.03	8.41	3.99
Regala	20.62	19.24	15.56	12.39	10.72	13.24
Royal Gala	23.64	20.35	15.41	13.71	14.60	13.03
Ruby Bay Pippin	-	-	-	-	15.50	8.60
Scifresh	49.00	36.12	-	-	-	-
Southern Rose	21.22	15.74	11.58	9.47	19.50	14.22
Southern Snap	19.68	17.37	16.75	15.05	13.52	8.65
Splendour	-	-	-	-	-	6.00
Sturmer Pippin	22.50	23.56	14.06	9.87	10.14	8.78
Sundancer	20.97	-	-	14.53	12.71	12.34
Other		-	-	14.62	22.47	13.37
Total Apples		-	-	10.21	14.19	9.76

*Source: Enza New Zealand.*

## Regional Prices

### Nelson

	\$ per TCE	
	2003	2002
Braeburn	18.17	18.69
Cox	21.96	22.74
Fuji	23.30	23.33
Royal Gala	21.56	23.19
Other Apples	23.50	24.00
Weighted Average price	20.41	21.26

The final average fruit return in 2002 of \$21.26 per export carton was an increase of \$1.43 per export carton over 2001 prices. 2003 prices are forecast.

*Source: Horticulture Monitoring Report - July 2003.*

### Hawkes Bay

	\$ per TCE	
	2003	2002
Braeburn	18.68	18.00
Fuji	26.05	27.79
Granny Smith	21.08	20.88
Pacific Beauty	22.78	22.19
Pacific Queen	21.61	21.25
Pacific Rose	23.21	22.16
Pink Lady	27.19	28.74
Royal Gala	20.00	23.85
Weighted Average Price	15.05	16.38

The 2002 return averaged \$22.14 per TCE, an increase of \$2.39 per TCE over 2000. 2003 prices are forecast.

*Source: Horticulture Monitoring Report - July 2003.*

### (ii) Processing/Standard/Reject

No recent prices are available. Payment in 2001 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 2000/2001 was \$60 per tonne. These prices are compared with \$30 per tonne in 1999/2000.

*Source: Ward's Horticulture*

ENZAFOODS offered hail-affected growers \$140 per tonne for Braeburn picked in January 2003. Acid was extracted from these and blended with other sweeter juice lines. Juice prices ex-packhouse were reduced to \$40 per tonne.

*Source : Horticulture Monitoring Report - July 2003.*

### **(iii) Local Market Price**

This is extremely variable and is very dependant on season and locality. In recent seasons prices have been around \$1.00 in the Nelson region.

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**

Premiums of up to 50%, or more, may be paid for fully certified organic product in the 2003/2004 season.

## **1.13.3 Avocados**

### **(i) Local Market**

Tag 2 grade in 2001 was \$10 per tray

Fruit in the Tag 3 grade (more suitable for processing as oil) 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 \$13.50 per tray (5.5kg) in 2002/2003.

*Source : Horticulture Monitoring Report - July 2003.*

## **1.13.4 Berryfruit**

### **(i) Strawberries (Export)**

Average grower return was \$5.00 per kg for the 2002/2003 season, remaining the same as the previous season. The high cost of air freight for fresh export strawberries, the high exchange rate and competition from China and other Asian Markets, has made it difficult to hold grower return at this level.

*Source: Horticulture Monitoring Report - July 2003.*

### **(ii) Blueberries**

Fresh blueberries averaged \$14.80 per kg, for the 2002/2003 season, compared with \$14 per kg in 2001/2002.

Frozen blueberries fetched \$4.50 per kg in 2001/2002, unchanged from the previous season.

*Source: Horticulture Monitoring Reports.*

### **(iii) Blackcurrants (Process)**

Return to growers for the 2001/2002 season was \$1.75 per kg, unchanged from the previous season.

*Source: Horticulture Monitoring Reports.*

### **(iv) Raspberries**

Raspberry prices in 2001/2002 remained stable at \$3.00 per kg.

*Source: Horticulture Monitoring Report - July 2002.*

## **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**

Mandarins in 2002/2003 averaged \$1 per kg, compared with a range of 39 cents to \$3.40 in 2001.

*Source : Horticulture Monitoring Reports.*

### **(iv) Oranges**

2002/2003 prices for oranges averaged 50 cents per kg.

*Source Horticulture Monitoring Report – July 2003.*

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

*Source Horticulture Monitoring Report – July 2002.*

### **(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.

*Source Horticulture Monitoring Report – July 2002.*

### 1.13.6 Feijoa

*Source: Trevor Swan – President, NZFGA.*

#### **(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 varied from \$40 per tray early in the season to \$18 to \$20 per tray mid season in 2003. However prices dropped after this to \$14 per tray and there was some difficulty moving fruit in the USA. 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.

## 1.13.7 Grapes

### Bulk Grapes for Wine Production

2003 Average Grape Price \$ per tonne (GST excl)	NZ										Average	
	Auckland	Waikato/ BOP	Gisborne	Hawkes Bay	Wellington/ Wairarapa	Marlborough	Nelson	Waipara	Canterbury	Otago		NZ
Variety	-	-	600	-	-	500	-	-	421.25	-	-	593
Breidecker	1295.31	1562.31	1421.37	1742.02	2179.36	2049.84	1922.31	3181.55	1528.84	2143.26	1596.96	
Chardonnay –	966.29	-	976.29	1034.57	2800	2041.75	1766.50	-	1500	2200	1281.18	
Mendoza&Clone 15	1216	1096.70	1177.15	1854.73	2353.22	2057.74	1735.40	1850	1705.22	2152.42	1676.50	
Clones 4 & 5	-	-	600	818	-	-	-	-	-	-	600	
All other clones	-	653.34	609	-	-	-	-	-	-	-	664	
Chasselas	-	-	553	-	-	-	-	-	-	-	553	
Chenin Blanc	-	-	1906	1915	2000	2310.31	2042.89	-	-	1719	2113	
Flora	577	-	618	575	-	618.36	-	-	-	-	615	
Gewurztraminer	-	-	541	638	-	-	-	-	-	-	548	
Muller Thurgau	-	-	357	-	-	-	-	-	-	-	357	
Muscat Varieties	-	1418.25	1241	2372	2443	2165.40	1931.32	-	1729	1753	2107	
Palomino	1603	-	582	-	-	-	-	-	-	-	582	
Pinot-Gris	-	-	636.77	1324.24	1916.45	1859.92	1622.09	2001.65	2011.69	1717	1840	
Reichensteiner	2300	1237.59	1106.94	1635.49	2247.06	2559.26	1966.06	1400	2035.96	1593	2436	
Riesling	-	-	799.02	1497.41	-	2301.13	-	-	-	-	1147	
Sauvignon Blanc	900	700	606.19	534.5	-	-	-	-	-	-	-	
Semillon	-	-	-	479.93	-	-	1500	-	1515.25	-	607	
Other White Wines	665.05	-	1292.52	2208.5	1649.26	-	-	-	-	-	480	
Blauberger	-	1379.70	-	2136.68	1834.51	3000	1975	-	2000	-	1631	
Cabernet Franc	-	1200	2000	2046.03	-	1961.85	2021.66	-	2000	-	2025	
Cabernet Sauvignon	2310.	1215.38	1622.29	2022.85	1942.96	2327.45	1825	-	-	-	2027	
Malbec	1826.16	-	1261.23	1700	-	2600.28	2088.14	-	1700	2202	1932	
Merlot	-	1425.24	-	2307.29	3506.62	1176.83	-	-	-	-	1292	
Pinotage	2128.14	-	967.58	1183.23	3128	2689.04	2297.13	3318.97	2367.35	3501	2838	
Pinot Noir	950.45	-	-	1790.37	2400	1115.36	-	-	-	1800	1051	
Pinot Noir sparkling	2096.30	728.27	-	1245.19	2200	2160.09	2200	-	-	3508	2436	
Syrah	1005.83	-	-	-	-	2826.58	-	-	2368.13	-	1655	
Other Reds	-	-	-	-	-	-	-	-	-	-	-	

Source: Grape and Wine Industry Statistical Annual 2003.

2002

## Average Grape Price \$ per tonne (GST excl)

Variety	Auckland	Waikat o/BOP	Gisborne	Hawkes Bay	Wellington/ Wairarapa	Marlborough	Nelson	Waipara	Canterbury	Central Otago	NZ Average
Breidecker	-	-	585	-	-	-	-	-	470.11	-	571.26
Chardonnay – Mendoza & Clone 15	1950	1439.77	1451.66	1840.75	2292.86	2078.77	1915.94	-	1990.77	2060.70	1637.79
Clones 4 & 5	1360.73	1150.65	933.29	1707.66	-	1893.75	1678.61	1860.27	1773.35	2327.14	1486.79
All other clones	1550.68	909.33	1106.04	1594.44	1957.18	-	-	-	-	-	568.78
Chasselas	-	-	580	502.98	-	-	-	-	-	-	762.85
Chenin Blanc	-	695.06	749.90	775.80	-	-	-	-	-	-	552.50
Flora	-	-	552.50	-	-	2075.34	1950	-	-	2131.15	1940.97
Gewurztraminer	-	-	1645.37	2254.35	-	648.77	-	-	587.02	-	595.97
Muller Thurgau	-	-	574.66	619.80	-	-	-	-	-	-	609.05
Muscat Varieties	-	-	613.06	581.84	-	-	-	-	-	-	487.73
Palomino	-	-	487.73	-	-	1982.26	1944.47	1831.26	1845.62	2492.38	1773.22
Pinot-Gris	1594.71	-	921.54	1948.26	2071.83	-	-	-	-	-	570.18
Reichensteiner	-	-	570.18	-	-	1597.02	1421.44	1447.15	1266.80	2267.21	1520.25
Riesling	-	-	620.28	1308.25	1628.64	2246.99	1880.98	2027.21	1601.08	1969.11	2144.92
Sauvignon Blanc	-	1232.11	1244.65	1575.27	2097.26	1732.64	-	-	-	-	1348.50
Semillon	-	-	1099.84	1462.77	1400	-	-	-	1360.10	-	571
Other White Wines	1774.99	653.19	577.45	506.35	-	-	-	-	-	-	548
Blauburger	-	-	548	-	-	3000	-	-	-	-	1978.94
Cabernet Franc	3200	-	1300.83	2272.24	1766.26	1883.21	2090.83	-	-	-	1974.02
Cabernet Sauvignon	1450	1257.39	1340.46	2077.31	1646.61	2507.40	-	-	-	-	2033.32
Malbec	3200	1635.36	1500	2039.35	-	2241.63	-	-	-	2500	2014.73
Merlot	2400	1781.44	1763.51	2075.56	1875.20	1088.22	-	-	-	-	1069.87
Pinotage	-	-	1208.39	1570.38	-	1395.78	-	2558.60	-	2104.80	1069.87
Pinot Noir – sparkling	-	-	841.33	1049.41	-	2796.46	2067.66	2566.68	2197.04	3530.50	2755.65
Pinot Noir - table	1650	1702.64	1500	1887.62	3163.25	2019.98	1980	-	-	2500	2103.22
Syrah	1800	-	1416.21	2134.73	2800	1514.84	-	-	2452.50	-	1133.49
Other Reds	990.34	808.11	1500	1334.68	1610.49	-	-	-	-	-	-

Source: Wine and Grape Industry Statistical Annual 2002

### 1.13.8 Kiwifruit

#### (i) Export Returns (per tray)

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03
Gross Returns	\$4.22	\$4.29	\$4.31	\$6.50	\$7.62	\$6.87	\$7.23	\$8.37
Gate Returns	\$2.50	\$2.64	\$2.59	\$4.08	\$5.26	\$4.34	\$4.49	\$5.45

Source: ZESPRI International Ltd.

#### (ii) Progress Payments for 2002/2003 compared with the previous season

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

Month		\$/tray	\$/tray
		2001/2002	2002/2003
Paid to	Submit Price (incl. materials and packing)	1.40	1.60
Date:	Paid to FOB shipping	1.80	1.60
	Paid Temua and organic conversion	0.03	0.04
	July	0.22	0.20
	August	0.12	0.25
	September	0.07	0.67
	October	0.35	0.80
	November	0.55	0.53
	November Conversion Premium	-	-
	December	0.63	0.80
	January	0.19	-
	February	0.15	0.16
	March	0.26	0.23
	April	0.10	0.10
	May	0.09	0.10
	June	0.11	0.16
	Kiwistart	0.14	0.13
	Loadout payment (incl. storage incentive)	0.93	0.89
Total available for distribution to growers (June)		\$7.15	\$8.25

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

Source: ZESPRI International Ltd.

## **(ii) Organic Kiwifruit prices**

The premium for organic kiwifruit in 2002/2003 was \$1.90 per tray (including a \$0.50 subsidy from the Green Pool) compared with \$1.05 in 2001/2002, \$2.07 in 2000/2001 and \$0.34 in 1999/2000.

*Source: Horticulture Monitoring Reports.*

## **(iii) Gold Kiwifruit prices**

The premium for gold kiwifruit in 2002/2003 was \$2.21 per tray compared with \$2.23 in 2001/2002.

*Source: Horticulture Monitoring Report - July 2003.*

## **(iv) Kiwifruit Price Trends**

2002 Returns (\$ per tray)

Zespri<sup>TM</sup> Green Class 1           \$5.65

Zespri<sup>TM</sup> Gold                       \$6.59

Estimated returns for 2003, and forecast prices for 2004 are \$7.41 and \$6.18 per tray respectively.

*Source: Horticulture Monitoring Report - July 2003.*

### **1.13.9 Olives**

Olives sold to processors for pressing fetch \$1.50 per kilogram, on average, 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 2003/2004 is selling wholesale at around \$60 per litre. Olives for pickling are, to date, not being on-sold to markets but are being processed by the grower and sold directly. Various Marketers pay differing prices for oil from growers but the norm is about \$20 per litre.

*Source: Alastair Bridge (Executive Officer), Olives NZ (Inc).*

### **1.13.10 Passionfruit**

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

### 1.13.11 Pears

ENZA New Zealand (International) Indicative Market Returns (2003 prices are unavailable, as the information is too sensitive in the deregulated environment.)

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

<b>Actual average payment, across all grades and sizes, per 18.0 kg TCE</b>					
<b>Enza Grade</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>
Beurre Bosc	20.91	26.79	18.51	12.03	11.83
Doyenne Du Comice	41.17	42.74	29.69	40.01	28.02
Packham's Triumph	-	25.11	15.75	19.55	13.84
Taylors Gold	34.19	44.85	23.46	27.86	30.45
Cascade	40.80	-	-	-	-
Concorde	46.69	-	-	-	-
Crimson Gem	42.93	-	-	-	-
Others	-	-	-	14.20	15.38
<b>Total Pears</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>24.70</b>	<b>19.01</b>

Source: Enza New Zealand

### 1.13.12 Stone Fruit

#### (i) Apricots

Fresh apricots sold on the local market, early in the 2002/2003 season in Central Otago returned \$3 to \$4 per kg to the grower, while main crop fruit averaged \$3 per kg. This is compared to the 2001/2002 season when growers received returns of around \$2.30 to \$4.50 per kg, dependent on size and grade.

Source: Horticulture Monitoring Report – July 2003.

For the 2001/2002 season, Central Otago growers received 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.

Source: Ward's Horticulture.

Prices for process apricots for 2003/2004 were 75 cents per kg, compared with prices of 70 cents per kg and 75 cents per kg in 2002 and 2001 respectively.

Source: Roxdale Foods Ltd.

Local market prices for fresh apricots in Hawkes Bay for the 2000/2001 season ranged between \$2.50 and \$3.00 per kg.

Export apricots in the 2000/2001 season went as high as \$5.43 per kg.

Source: Horticulture Monitoring Report - July 2001.

## **(ii) Cherries**

2002/2003 cherries returned, on average, \$12 per kg to the grower, compared with an average of \$6 per kg in the 2001/2002 season.

*Source: Horticulture Monitoring Report – July 2003.*

Export cherries in the 2002/2003 season averaged \$11.25 per kg and in the 2000/2001 season, top quality fruit returned \$20 per kg (however the average price was \$14.50 per kg).

*Source: Horticulture Monitoring Reports.*

## **(iii) Peaches**

The average payout for processing peaches in Hawkes Bay for 2002/2003 was \$500 per tonne, This price was similar to the previous two seasons.

*Source Horticulture Monitoring Report - July 2003.*

Golden Queen peaches fetched \$400 per tonne in Hawkes Bay in 2001/2002.

*Source Horticulture Monitoring Report - July 2002.*

## **(iv) Plums**

In the 2002/2003 season, premium variety plums returned \$4.00 to \$5.00 per kg, while commodity varieties were \$2.00 to \$3.00 per kg. Later in the season, good quality plums from Central Otago returned an average of \$4.00 per kg.

*Source Horticulture Monitoring Report - July 2003.*

In the 2001/2002 season growers in Central Otago received around \$1 per kg for process plums, compared to 80 cents per kg for the 1999/2000 harvest. This was virtually unchanged from 1998/1999.

Export greengages in the 2001/2002 season returned around \$6 per kg to growers in Central Otago.

*Source: Ward's Horticulture.*

Prices for processing Black Doris plums in Hawkes Bay reached \$1,000 per tonne in 2002/2003, similar to the previous season.

Prices for processing plums in Hawkes Bay for the 2000/2001 season were \$800 per tonne.

*Source: Horticulture Monitoring Reports.*

## **(v) Nectarines**

In the Hawkes Bay growers were paid \$3.00 to \$4.50 per kg for early and mid season fruit in 2002/2003. These prices were similar to the previous season, compared to \$2.50 to \$4.00 per kg in 2000/2001.

Central Otago prices for 2002/2003 ranged from \$2.50 to \$3.20 per kg.

In the Hawkes Bay growers were paid \$640 per tonne for processing grade nectarines in 2001/2002, similar to 2000/2001 prices. Local market prices for fresh nectarines ranged from \$2.50 to \$4.00 per kg in 2000/2001.

*Source: Horticulture Monitoring Reports.*

## (vi) Summerfruit

Wholesale Returns (\$ per kg) 2000 to 2003

<b>Fruit</b>	<b>2002/2003</b>	<b>2001/2002</b>	<b>2000/2001</b>
Apricots	\$3.35	\$2.20	\$3.00
Cherries	\$7.50	\$4.50	\$6.00
Nectarines	\$3.55	\$1.80	\$2.80
Peaches	\$3.55	\$1.70	\$2.80
Plums	\$4.00	\$2.80	\$4.00

*Source: Horticulture Monitoring Report - July 2003.*

### 1.13.13 Tamarillos

Prices averaged \$3.00 per kg in 2002/2003, with growers concentrating on the domestic market only.

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.

*Source: Horticulture Monitoring Reports.*

## **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**

In 2002/2003 Hawkes Bay and Manawatu prices averaged \$1.80 to \$2.00, compared with \$2.00 to \$2.20 per kg in 2001. Canterbury growers received prices up to \$2.50, an increase over expected average prices of \$1.00 to \$1.50 per kg received in previous seasons.

*Source : Horticulture Monitoring Reports.*

Auckland wholesale market prices in 2001 averaged \$2.00 per kg.

Local market prices for the 2001 season in Manawatu were \$2.10 to \$3.00 per kg and in Hawkes Bay around \$3.00 per kg. These were the same as 2000 prices.

*Source: Horticulture Monitoring Report – July 2001.*

#### **(ii) Process**

Details of contracts are confidential but prices for 2001/2002 prices ranged from \$1.90 to \$2.10 per kg in the lower North Island, virtually unchanged from 2000.

*Source: Horticulture Monitoring Reports.*

#### **(iii) Export**

Hawkes Bay and Manawatu growers received prices ranging from \$1.00 to \$9.00 per kg in 2002/2003, while growers in Canterbury received up to \$3.00 to \$4.00 per kg for late harvest crops.

The national average price for the 2002 season remained at \$2.00 per kg, similar to the previous season.

The average export price for 2001 was \$2.40 per kg in the lower North Island, and \$2.65 per kg in Manawatu and around \$3.50 per kg in the Hawkes Bay in 2000.

*Source: Horticulture Monitoring Reports.*

### 1.14.3 Beans

#### (i) Process

Snap Bean prices averaged \$210 per tonne in 2002/2003.

*Source : Horticulture Monitoring Report – July 2003.*

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

#### (ii) Organic Beans

Premiums paid in 2002/2003 averaged 60 to 65 % above the price for standard crops and these were expected to be similar for 2003/2004. Again, these are confidential between company and producer.

### 1.14.4 Broccoli

In 2002 growers received 55 cents per head. These prices were down on the previous two seasons with growers in the Auckland / Waikato region receiving 60 to 70 cents, on average, per head of broccoli in 2001/2002, similar to the 2000/2001 price.

*Source : Horticulture Monitoring Reports.*

#### Broccoli Price Trends

Average Price (\$ per vegetable pack)				
2003	2002	2001	2000	1999
\$13.00	\$15.50	\$15.00	\$11.50	\$11.60

*Source: Horticulture Monitoring Report – July 2003.*

### 1.14.5 Cabbage

Prices received for cabbages increased during the past season with growers receiving an average of \$1.00 per head in 2002/2003. Growers in the Auckland and Waikato received 88 cents to \$1.00 per head in 2001/2002, slightly up on the price of between 60 cents and \$1.00 per head in the 2000/2001 season. Wholesale prices in the Auckland region were as high as \$1.44 per head in 2002/2001

*Source: Horticulture Monitoring Reports.*

## Cabbage Price Trends

Average Price (\$ per vegetable pack)				
2003	2002	2001	2000	1999
\$8.00	\$7.50	\$8.00	\$10.20	\$9.80

*Source: Horticulture Monitoring Report – July 2003.*

### 1.14.6 Capsicum

#### (i) Fresh

Range of prices for Tag 1 Red greenhouse capsicums over 2002/2003.

	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June
\$/kg	6.30	6.00	5.80	5.60	4.30	5.00	5.00	4.00	4.00	5.00

*Source: Horticulture Monitoring Report – July 2003.*

#### (ii) Export

2001 export prices averaged \$4.20 per kg.

*Source: Horticulture Monitoring Report – July 2002.*

### 1.14.7 Carrots

#### (i) Fresh

Lower North Island prices for washed and crowned carrots for 2002/2003 were \$140 per tonne.

*Source : Horticulture Monitoring Report – July 2003.*

#### (ii) Process

Prices paid to producers for process carrots for the 2003/2004 season are confidential and were not available for publication. However, growers were expecting prices to be very similar to those paid in previous seasons.

Canterbury prices for the 2000/2001 season averaged \$90 per tonne.

#### (iii) Export

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

*Source Horticulture Monitoring Report - July 2001.*

#### (iv) Organic

Up to \$1,300 per tonne was received by lower North Island growers for organic carrots in 2001/2002.

*Source Horticulture Monitoring Report - July 2002.*

### 1.14.8 Cauliflowers

In 2002/2003 growers received an average of 95 cents per head compared with \$1.12 in the previous season.

In the northern North Island, prices for the 2000/2001 season ranged from 40 cents to \$4.00 per head due to the uneven supply of produce.

#### Cauliflower Price Trends

Average Price (\$ per vegetable pack)				
2003	2002	2001	2000	1999
\$7.70	\$8.00	\$11.20	\$10.60	\$10.00

*Source: MAF Horticulture Monitoring Report - July 2003.*

### 1.14.9 Courgettes

No recent 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.

*Source : Horticulture Monitoring Report – July 2001.*

#### (ii) Process

The price for process squash in 2002/2003 was 15 cents per kg and 3 to 4 cents per kg for stock food grade. In the previous season prices in Gisborne, averaged 55 to 60 cents per kg and fetched up to 70 to 80 cents late in the season.

*Source : Horticulture Monitoring Reports.*

#### (iii) Export

In Gisborne prices for squash exported to Japan varied greatly. An average price over the 2002/2003 season was around 45 cents per kg. In the 2001/2002 season, prices varied from \$2.00 per kg early in the season down to 45 cents later.

Hawkes Bay prices ranged from 30 cents to \$1.00 per kg.

*Source : Horticulture Monitoring Reports.*

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

Prices ranged from 50 to 80 cents per head in 2001/2002.

Northern North Island prices were around 80 cents to \$1.00 per head in 2000/2001.

*Source : Horticulture Monitoring Reports.*

#### Lettuce Price Trends

Average Price (\$ per vegetable pack)				
2003	2002	2001	2000	1999
\$9.40	\$10.00	\$8.00	\$10.00	\$9.40

*Source Horticulture Monitoring Report – July 2003.*

### 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

2002/2003 Onion Prices in Hawkes Bay averaged \$7.50 to \$8.50 per 20kg bag for first grade and \$7.00 to \$7.50 per 20kg bag for domestic and B grade. This is compared to wholesale market prices for fresh onions on the Auckland market in 2001, which averaged 76 cents per kg.

#### Onion Price Trends

Average Price (\$ per 20 kg bag)					
	2003	2002	2001	2000	1999
Small	\$6 to \$8	-	-	-	\$3
Medium (<75mm)	\$6 to \$8	\$4 to \$9	\$7 to \$8	\$2 to \$4	\$11 to \$12
Jumbo (>75mm)	\$6 to \$8	\$3 to \$9	\$10 to \$11	\$3 to \$ 5	\$12 to \$ 14

*Source: Horticulture Monitoring Report - July 2003.*

Prices for bulk onions in the 2003 season, for most size grades in Manawatu, were:

	\$300 tonne	January to March
up to	\$550 tonne	July to October
up to	\$700 tonne	November to December

*Source: Morgan Laurensen Ltd.*

## **(ii) Export**

In 2002/2003 growers received \$350 to \$400 per tonne, compared with \$6.00 to \$8.50 per 20 kg bag for onions exported to the United Kingdom and Europe in 2001/2002.

Organic onions for export from the lower North Island fetched \$1,150 per tonne (f.o.b.) in 2001/2002.

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.

*Source: Horticulture Monitoring Reports.*

### **1.14.15 Peas**

#### **(i) Process**

Prices paid to growers in 2002/2003 were \$315 per tonne, and in 2001/2002 averaged \$300 per tonne

*Source: Horticulture Monitoring Report - July 2003.*

#### **(ii) Organic**

Organic pea growers received \$400 per tonne in 2002/2003

*Source : Horticulture Monitoring Report – July 2003.*

Premiums of between 50 and 55% above standard prices are expected by growers, however, as with other crops, these prices are confidential between the company and the grower.

### **1.14.16 Potatoes**

#### **(i) Main Crop Potatoes**

Lower North Island

In the 2002/2003 season, prices for potatoes averaged \$180 to \$200 per tonne and peaked at \$245 later in the season. Local market bag sales have improved with prices averaging around \$3.10 per kg compared with \$2.00 per kg in 2001/2002. In the season 2000/2001 prices lifted to an average of \$250 to \$300 per tonne for both fresh and process potatoes.

Price Trends

Average Price for Main Crop Potatoes (\$ per tonne)				
2003	2002	2001	2000	1999
\$300	\$250	\$250 to \$300	\$100	\$390

Source: Horticulture Monitoring Report - July 2003.

Manawatu

2003	\$225 to \$350 per tonne brushed potatoes
2003	\$400 to \$550 per tonne washed potatoes
2002	\$250 to \$350 per tonne brushed potatoes
2002	\$450 to \$600 per tonne washed potatoes
2001	\$275 to \$400 per tonne brushed potatoes
2001	\$475 to 600 per tonne washed 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.

Source: Horticulture Monitoring Reports, Morgan Laurensen Ltd. (2001 to 2003).

Canterbury

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

Southland

Main crop potatoes for the 2002/2003 season in Southland were \$300 to \$400 per tonne. This compares with the 2001/2002 prices of \$400 to \$500 per tonne.

**(ii) Process**

Average price for process potatoes were as follows (\$ per tonne):

2003	2002	2001	2000	1999
\$200	\$175	\$250 to \$300	\$250	\$330

Source: Horticulture Monitoring Report - July 2003.

### **(iii) Export**

Prices of \$220 per tonne were received by growers for potatoes grown in the lower North Island in the 2001/2002 season.

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. One South Island company paid growers \$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.

*Source: Horticulture Monitoring Reports.*

#### **1.14.17 Pumpkins**

No prices were available for recent years. 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**

No prices for recent years were available. May to August 1999 prices in South Canterbury were \$7.00 to \$8.00 per crate for fresh product, 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**

In the 2002/2003 season Gisborne super sweet varieties fetched \$180 per tonne. This compares with \$140 to \$165 per tonne in 2001/2002. Growers in Hawkes Bay received \$135 per tonne, compared with \$119 to \$132.50 per tonne in 2001/2002.

Southern North Island prices in 2000/2001 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.

The average price paid in Canterbury for process sweet corn in 2000/2001 was \$135 per tonne compared with \$150 per tonne in 1998/1999.

*Source : Horticulture Monitoring Reports.*

Marlborough growers received \$145 per tonne in 2001 (\$135 in 2000).

*Source: New Zealand Vegetable and Potato Growers Federation.*

## **(ii) Organic**

The 2001/2002 price for organically grown sweet corn in Hawkes Bay was \$220 per tonne, an increase on the 2000/2001 price of \$200 per tonne.

*Sourc : Horticulture Monitoring Reports.*

### **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.

*Source: Horticulture Monitoring Report – July 2001.*

#### **(ii) Process**

Tomato growers received \$100 per tonne in 2002/2003, similar to 2001/2002. This compares with the 2000/2001 season contract price in the lower North Island of \$97 per tonne, unchanged from 1999/2000.

*Source: Horticulture Monitoring Reports.*

### **1.14.21 Zucchini**

Recent prices are unavailable. However, Canterbury farmers were paid 50 cents per kg in 1998/1999 for zucchini for processing, unchanged from 1997/1998.

## 1.15 CUT FLOWERS

### 1.15.1 Local Market

#### (i) 2003 Auction Prices - Auckland

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

	Jan	Feb	Mar	April	May	June
Carnation spray (per 10)	1.99	1.91	1.38	2.06	4.60	4.52
Standard (per 10)	-	1.72	1.48	2.15	4.85	4.83
Chrysanth. (per 5)	2.55	-	-	1.34	-	3.78
Rose (per 10)	2.80 - 12.30	4.42 – 12.65	6.76	6.21 – 16.97	3.98 – 9.43	5.26-12.69
Agapanthus (per 5)	1.10	1.32	1.34	1.21	1.50	1.74
Ageratum (per 5)	1.45	1.32	1.37	1.29	0.81	-
Alstromeria (per 5)	0.85	0.99	1.12	1.15	1.29	2.77
Anemone (per 10)	-	-	-	-	-	-
Daffodil (per 5)	-	-	-	-	2.06	2.32
Delphinium (per 5)	2.02	2.68	1.75	1.77	2.11	2.08
Freesia (per 10)	-	-	-	-	-	-
Gerbera (per 5)	2.02	1.91	1.50	2.50	2.12	3.44
Gypsophilia (200g)	2.05	2.17	-	3.58	5.19	10.89
Iris (per bunch)	1.74	1.91	1.42	-	1.33	1.65
Lily (per 5)	2.77	4.18	4.25	4.09	5.05	4.48
Lisianthus (per5)	-	6.79	3.18	2.99	3.12	4.05
Paeony (per 5)	5.11	3.51	-	-	-	-
Ranunculus (per 5)	1.20	-	-	-	-	-
Snap Dragon (per 5)	1.18	1.06	1.57	0.98	3.36	2.73
Statice (per 5)	1.08	1.36	1.50	2.65	2.55	10 for 3.45
Stock Double (per 5)	2.20	3.00	-	-	4.27	3.59
Tulip (per 5)	0.85	-	-	-	3.30	2.68

	<b>July</b>	<b>August</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
Carnation spray (per 10)	4.90	4.90	4.28	2.78	2.86 for 5	2.86
Standard (per 10)	5.69	5.69	5.15	4.19	4.38	6.20
Chrysanth. (per 5)	-	-	3.58	4.21	3.10	4.80
Rose (per 10)	8.15- 15.21	8.15- 15.21	6.30-9.23	3.11- 15.27	3.71- 11.07	4.23- 15.90
Agapanthus (per 5)	1.65	1.65	-	1.48	1.09	1.95
Ageratum (per 5)	2.00	2.00	-	-	-	-
Alstromeria (per 5)	3.23	3.23	2.24	0.90	1.79	2.20
Anenome (per 10)	1.47	1.47	0.97	2.16	-	-
Daffodil (per 10)	0.55-2.27	0.55-2.27	1.28	1.07	-	-
Delphinium (per 5)	4.50	4.50	3.94	3.99	2.80	3.26
Freesia (per 10)	-	-	2.42	2.66	-	-
Gerbera (per 5)	2.40-4.50	2.40-4.50	1.75-3.23	1.38	2.25	1.98
Gypsophilia (200g)	6.80	6.80	10.05	7.72	7.12	4.56
Iris (per 5)	3.00	3.00	1.89	1.38	1.79	1.22
Lily (per 5)	3.94	2.84-4.86	2.81	2.72	2.51	2.88
Ranunculus (per 5)	1.67	1.67	1.90	1.40	-	-
Snap Dragon (per 5)	2.80	2.80	1.90	1.41	1.23	1.95
Statice (per 5)	5.12	5.12	3.91-6.75	3.13	1.50	2.23
Stock Double (per 5)	4.26	4.26	2.12	1.53	2.54	3.96
Tulip (per 5)	2.65	2.65	2.53	1.36	1.25	-

*Source: Horticulture News, 2003 Issues.*

**(ii) 2002 Auction Prices – Auckland**

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

	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>April</b>	<b>May</b>	<b>June</b>
Carnation spray (per 10)	1.49	2.64	2.54	3.23	2.94	4.11
Standard (per 10)	1.37	1.94	1.81	2.01	2.83	3.83
Chrysanth. (per 5)	2.86	3.60 – 5.19	3.49 – 4.90	3.13	2.64	3.30
Rose (per 10)	1.29 – 9.32	1.51 – 7.64	1.27 – 16.66	1.56 – 7.99	1.85 – 5.99	1.87 – 7.48
Agapanthus (per 5)	0.75	0.92	1.37	-	2.15	2.35
Ageratum (per 5)	-	1.09	1.19	-	-	2.27
Alstromeria (per 5)	1.13	1.25 – 2.56	1.08	1.40	1.74	2.18
Anenome (per 10)	-	-	-	5 for 2.25	-	1.84
Daffodil (per 10)	-	-	1.18	2.03	1.75	1.66
Delphinium (per 5)	2.17	3 for 1.76	1.89	3.21	2.76	2.48
Freesia (per 5)	-	-	-	-	-	3.37
Gerbera (per 5)	1.49 – 2.76	1.40 – 3.08	1.57 – 3.61	1.97 – 4.36	2.81	3.75
Gypsophilia (200g)	2.30	3.60 – 5.09	3.72	2.67	3.38	5.93
Iris (per 5)	1.30	0.94	2.02	2.42	2.70	2.02
Lily (per 5)	1.22 – 3.84	1.06 – 3.12	1.13 – 6.83	1.79 – 4.70	1.63 – 6.27	2.22 – 5.97
Lisianthus (per 5)	6.34	3.25 – 6.04	2.55 – 5.39	5.15	4.85	3.95
Paeony (per 5)	2.78 – 11.90	3.20	-	-	-	-
Ranunculus (per 5)	0.83	-	-	-	-	-
Snap Dragon (per 5)	1.18	1.30	2.01	1.73	2.40	3.98
Statice (per 5)	1.44	1.40	1.03	1.83	2.63	3.25
Stock Double (per 5)	3.20	4.28	5.15	3.15	5.00	4.08
Tulip (per 5)	0.99	0.96	1.38	-	3.78	2.38

	<b>July</b>	<b>August</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
Carnation spray (per 10)	4.41	4.34	5.36	4.60	4.84	4.90
Standard (per 10)	4.67	4.76	5.49	5.50	5.05	-
Chrysanth. (per 5)	4.20	3.18	4.92	4.68	4.34	4.51
Rose (per 10)	2.07- 12.28	0.212	4.62 - 12.82	6.04 - 12.55	5.70 - 12.90	2.20 - 12.78
Agapanthus (per 5)	2.57	2.35	0.81	1.69	1.72	1.22
Ageratum (per 5)	2.08	2.27	2.06	2.74	2.52	2.30
Alstromeria (per 5)	2.71	2.67	3.66	2.85	2.12	1.40
Anenome (per 10)	1.34	1.89	5.79	1.59	1.64	1.42
Daffodil (per 10)	1.34	1.28	0.92	1.22	1.05	1.16
Delphinium (per 5)	3.51	3.87	3.80	4.10	4.00	3.61
Freesia (per 5)	3.25	2.44	2.73	2.50	2.44	-
Gerbera (per 5)	1.60 – 3.90	3.02	2.48 – 6.64	2.04 – 4.50	2.15 – 4.20	2.03
Gypsophilia (200g)	5.72	5.50	9.98	12.01	-	5 for 8.15
Iris (per 5)	1.92	1.69	1.88	1.50	1.37	1.37
Lily (per 5)	1.67- 4.48	1.87 – 3.25	3.46	3.62	3.00 – 7.30	3.57
Lisianthus	3.71 – 7.13	4.38	4.52	4.75	4.75	-
Paeony	-	-	-	-	-	9.94 – 13.35
Ranunculus (per 5)	2.62	1.70	2.20	2.73	1.99	1.19
Snap Dragon (per 5)	3.12	2.31	2.86	3.05	2.93	1.95
Statice (per 5)	4.62	4.06	3.98	4.37	3.13	2.45
Stock Double (per 5)	3.82	2.86	3.33	3.14	2.66	2.44
Tulip (per 5)	2.74	2.50	2.25	2.02	1.04	1.15

*Source: Horticulture News, 2002 Issues.*

**(iii) 2001 Auction Prices – Auckland**

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

	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>April</b>	<b>May</b>	<b>June</b>
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
Gypsophilia (per 200g)	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	-	-	-	-	-
Ranunculus (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

	<b>July</b>	<b>August</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
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	-	-
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 (per 200g)	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
Ranunculus (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.*

## **1.15.2 Export Prices**

### **(i) Callas (*Zantedeschias*)**

The average price for 2002/2003 was \$1.13 per stem (f.o.b.) compared with \$1.14 per stem in 2001/2002

*Source: Horticulture Monitoring Report – July 2003.*

### **(ii) Lillies**

Prices for 2002/2003 were expected to be similar to the 2001/2002 average price of \$1.51 per stem. This was down by 8 percent on the previous season's price.

*Source: Horticulture Monitoring Report – July 2002.*

### **(iii) Orchids**

The average flower price for 2003 was \$6.05 per stem (f.o.b.). Prices for 2003/2004 are expected to be less than this due to the strengthening of the \$NZ against the Yen and continued weak market conditions in Japan.

In the year to March 2002, prices averaged \$6.32 per stem.

*Source: Horticulture Monitoring Reports.*

### **(iv) Paeonies**

Export paeonies returned an average of \$1.69 per stem, compared with \$1.95 per stem in 2001/2002. Prices in 2003/2004 are predicted to improve as newer varieties come into production. This may be offset by an expected volume increase.

*Source: Horticulture Monitoring Report – July 2003*

### **(v) Sandersonias**

Sandersonia export prices for the 2002/2003 season averaged 63 cents per stem (f.o.b.), a decrease from the previous season's price of 78 cents per stem.

*Source: Horticulture Monitoring Reports.*

## 1.16 APICULTURAL PRODUCTION

### 1.16.1 Honey

Prices for 2000 to 2003

Colour/grade	\$/kg (f.o.b.)		
	2002/2003	2001/2002	2000/2001
Light (clover type)	\$4.20 to \$4.80	\$4.00 to \$4.30	\$2.30 to \$2.80
Light amber	\$4.20 to \$4.50	\$3.25 to 43.50	\$1.80 to \$2.40
Dark	\$4.00 to \$5.00	\$3.00 to \$3.50	\$1.60 to \$2.30
Manuka *	\$9.00 to \$27.00	\$7.50 to \$27.00	\$5.00 to \$24.00

\* A recent trend to pay premiums (at \$1.00 per kg per point) for antibacterial activity (as determined by an accredited laboratory) has some growers receiving good premiums for Manuka honey.

*Source: Horticulture Monitoring Reports.*

### 1.16.2 Beeswax

Prices for 2000 to 2003

	\$/kg (f.o.b.)		
	2002/2003	2001/2002	2000/2001
Light	\$6.50	\$6.50	\$6.50
Dark	\$5.50	\$5.50	\$5.50

*Source: Horticulture Monitoring Reports.*

### 1.16.3 Pollen

Prices for 2000 to 2003

	\$/kg fob		
	2002/2003	2001/2002	2000/2001
Not dried or cleaned	\$10.00	\$10.00	\$10.00
Cleaned and dried	\$17.00 to \$30.00	\$17.00 to \$22.00	\$17.00 to \$22.00

*Source: Horticulture Monitoring Reports.*

#### 1.16.4 Propolis

Prices ranging from \$80 to \$100 per kg were received in the 2002/2003 season for raw product. This price is the same as for 2001/2002, which increased significantly from the 2000/2001 price of \$50 to \$75 per kg. After extraction to purify the raw product, beekeepers were receiving \$160 per kg in 2002/2003 compared with up to \$200 per kg in 2001/2002.

*Source: Horticulture Monitoring Reports.*

#### 1.16.5 Pollination

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

	\$ per hive		
	2002/2003	2001/2002	2000/2001
Pip/stonefruit, berries	\$50.00 to \$55.00	\$48.00 to \$55.00	\$45.00 to \$50.00
Kiwifruit:			
Hawkes Bay	\$80.00 to \$100.00	\$75.00 to \$90.00	\$70.00 to \$80.00
Taranaki	\$70.00 to \$80.00	\$65.00 to \$75.00	\$65.00 to \$70.00
Auckland	\$80.00 to \$115.00	\$70.00 to \$100.00	\$60.00 to \$80.00
Bay of Plenty	\$95.00 to \$138.00	\$86.00 to \$130.00	\$70.00 to \$130.00

*Source: Horticulture Monitoring Reports.*

In Canterbury, hives placed in vegetable crops received \$80 per hive for the 2001/2002 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 2002/2003.

Queen bees sold for \$14 to \$22 each on the local market and for \$16 to \$30 each for export in 2001/2002. These prices were higher than the previous season.

Queen cells sold for \$2.50 to \$5.00 each in 2001/2002 and bulk bees for export fetched \$12 to \$14 per kg.

*Source: Horticulture Monitoring Reports.*

## 1.17 LOGS

### 1.17.1 Indicative Log Prices

The prices and rates shown are those current at 31 January 2004 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 m<sup>3</sup> f.o.b.)

Grade	Dec 2002	March 2003	June 2003	Sept 2003	Dec 2003
Pruned	\$170 to \$215	\$160 to \$230	\$1524 to \$230	\$165 to \$227	\$105 to \$206
Unpruned	\$91 to \$121	\$87 to \$114	\$87 to \$106	\$79 to \$95	\$77 to \$98
A – Japan					
Unpruned	\$80 to \$90	\$70 to \$86	\$70 to \$86	\$65 to \$87	\$65 to \$93
K – Korea					
Unpruned J	\$87 to \$103	\$77 to \$103	\$77 to \$102	\$64 to \$73	\$60 to \$83
– Japan					
Pulp –	\$52 to \$61	\$45 to \$59	\$40 to \$52	\$44 to \$59	\$27 to \$58
Japan					

Source: MAF [www.maf.govt.nz](http://www.maf.govt.nz)

#### (ii) Domestic Log Prices (per quarter)

(\$NZ per tonne delivered at mill)

Grade	Dec 2002	Mar 2003	Jun 2003	Sep 2003	Dec 2003
P1	\$171 to \$190	\$163 to \$190	\$148 to \$190	\$145 to \$165	\$140 to \$170
P2	\$101 to \$152	\$101 to \$160	\$109 to \$152	\$101 to \$144	\$103 to \$136
S1	\$83 to \$100	\$91 to \$100	\$82 to \$105	\$73 to \$98	\$73 to \$90
S2	\$87 to \$96	\$70 to \$96	\$84 to \$94	\$51 to \$90	\$73 to \$84
L1 and L2	\$60 to \$78	\$63 to \$75	\$50 to \$71	\$45 to \$80	\$48 to \$72
S3 and L3	n/a	n/a	\$50 to \$78	\$47 to \$68	\$48 to \$75
Pulp	\$38 to \$49	\$30 to \$4	\$34 to \$38	\$33 to \$41	\$37 to \$43

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 judgment have been incorporated into them. The prices are subject to changes when further data becomes available.

Source: MAF [www.maf.govt.nz](http://www.maf.govt.nz)

### 1.17.2 Forestry Forecasts

Export prices (\$ per m<sup>3</sup>)

#### (i) Logs and Lumber

March Year	2003p	2004f	2005z	2006z	2007z	2008z
Logs	\$744	\$637	\$736	\$853	\$935	\$1030
Lumber	\$920	\$772	\$844	\$932	\$1002	\$1064

#### (ii) Wood Pulp, Paper Products and Panels

March Year	2003p	2004f	2005z	2006z	2007z	2008z
Wood Pulp	\$491	\$505	\$551	\$498	\$463	\$603
Paper Products	\$606	\$573	\$700	\$679	\$595	\$677
Panels	\$539	\$449	\$503	\$577	\$662	\$720

p = provisional      f = forecast      z = prediction

*Source: Situation and Outlook for New Zealand Agriculture and Forestry, May 2003.*

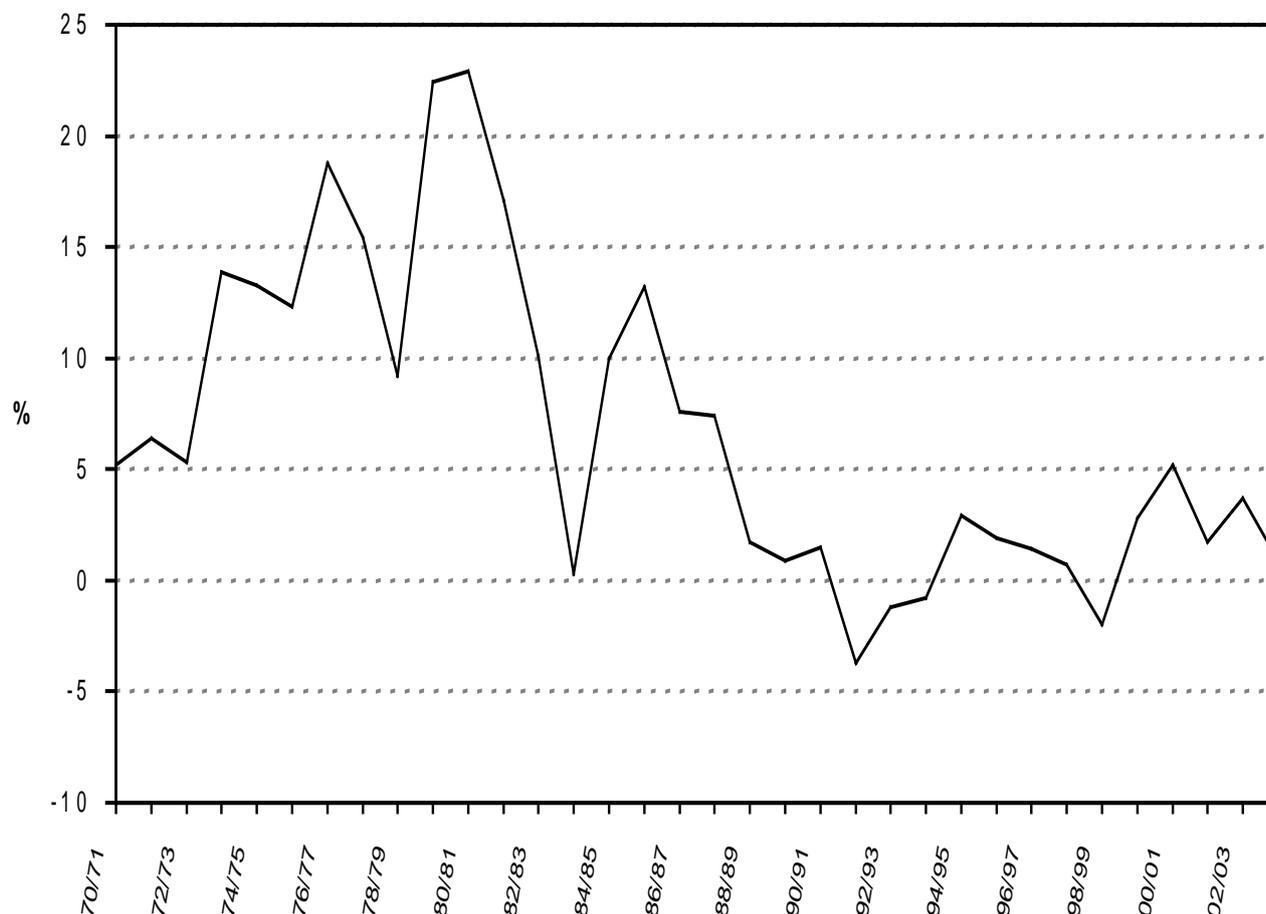
**SECTION 2**  
**PRODUCT PRICES**

**Note:** Before reading this section, please refer to the disclaimer in the Preface of this Manual.

## 2.1 INPUT PRICES - GENERAL INFORMATION

### 2.1.1 Input Price Movements

Sheep and Beef Farm Input Price Movements 1970/1971 to 2003/2004



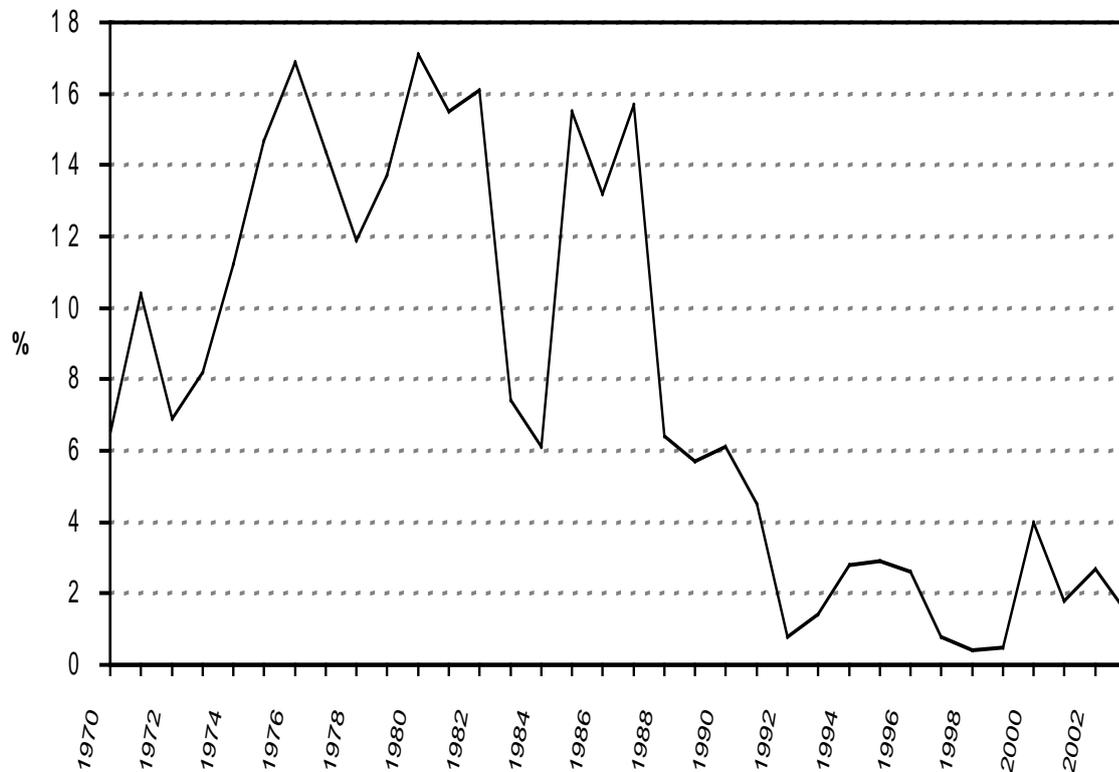
Source: MWI Economic Service.

### 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 1970 to 2003

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 \$34,000
Head Shepherd	\$30,000 to \$38,000
Stock Manager	\$35,000 to \$45,000
Manager	\$38,000 to \$70,000
General Hand/Tractor Driver	\$26,000 to \$33,000

#### Dairy:

	North Island	South Island
Part-Time Assistant	\$11 to \$13 per hour	\$10 to \$15 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	\$33,000 to \$80,000	\$38,000 to \$90,000
Operations Manager	\$50,000 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 a deduction of up to 15% for board and 5% for lodging can be made from the minimum hourly rate.

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. Where accommodation is provided, that accommodation may be assessed for taxation purposes according to the requirements of the IRD, according to the formulae set out from time to time or from the best advice available.

#### Assistant:

Someone completing tasks under direct supervision and with few areas of responsibility other than within the dairy shed. For example Nitrogen: will be applying it, maybe calibrating spreader, but will not decide rate.

#### Herd Manager:

Has some responsibilities. For example Nitrogen: will definitely be calibrating spreader, maybe deciding rate.

#### Farm Manager:

Makes the weekly decisions on farm. For example Nitrogen: will be deciding rate of application, maybe deciding total annual Nitrogen use.

#### 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. For example Nitrogen: will be deciding total amount of Nitrogen usage.

#### 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. See *Section 4.12*.

### **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 \$6.80 per hour, \$54.40 for an 8-hour day, and \$272 for a 40-hour week. This youth rate applies to those aged 16 to 17 years.

The minimum wage for adults is \$8.50 per hour, \$68.00 for an 8-hour day, and \$340 for a 40-hour week. This adult rate applies to those aged 18 or more.

All staff 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 employee 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)**

	\$ per hour
Permanent Staff:	
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	\$8.50 to \$11.00 per hour
(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 \$9.00 to start (\$9.50 if they have done the greenhouse practitioners course), to \$10.50 after three months. \$11 to \$13 for a senior or team leader.

### **Market Garden (Southland)**

Under 19 years of age \$9.50 per hour  
Over 19 years of age \$10.00 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 per hr

14 to 16 year olds

\$6.50 per hr

16 to 17 (no experience)

\$7.50 per hr

16 to 17 experienced

\$8.00 per hr

18 to 19 (no experience)

\$8.00 per hr

18 to 19 experienced

\$8.50 per hr

Adults (first year)

\$8.50 per hr

Adults (second year)

\$9.50 per hr

Adults (subsequent years)

\$10.00 per 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:

<b>Sheep and Beef</b>	(per su)
Northland	\$11.48
Waikato/Bay of Plenty Intensive	\$10.43
Central North Island Hill Country	\$7.42
Gisborne Large Hill Country	\$2.50
Hawkes Bay/Wairarapa Summer Dry	\$9.08
Hawkes Bay/Wairarapa Summer Moist	\$7.05
Manawatu/Rangatikei Intensive	\$9.81
Canterbury/Marlborough Hill Country	\$6.17
South Island Merino	\$5.93
Canterbury/Marlborough Breeding and Finishing	\$9.88
Otago Dry Hill	\$6.51
Southland/South Otago Hill Country	\$7.08
Southland/South Otago Intensive	\$13.35
National	\$8.09

<b>Dairy</b>	(per cow)
Northland	\$184
Waikato/Bay of Plenty	\$170
Lower North Island	\$206
Canterbury	\$105
Southland	\$126
National	\$153
<b>Deer</b>	(per su)
North Island	\$17.59
South Island	\$15.46
<b>Arable</b>	(per ha)
Canterbury	\$160
<b>Horticulture</b>	(per ha)
Kiwifruit	\$9,720
Hawkes Bay Pipfruit	\$3,044
Nelson Pipfruit	\$2,570

*Source: MAF Farm Monitoring Reports – July 2003*

## 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.

<b>Sheep and Beef</b>	(per su)
Northland	\$2.47
Waikato/Bay of Plenty Intensive	\$2.32
Central North Island Hill Country	\$3.16
Gisborne Large Hill Country	\$2.73
Hawkes Bay/Wairarapa Summer Dry	\$3.40
Hawkes Bay/Wairarapa Summer Moist	\$3.17
Manawatu/Rangatikei Intensive	\$2.35
South Island Merino	\$2.85
Canterbury/Marlborough Hill Country	\$2.86
Canterbury/Marlborough Breeding and Finishing	\$3.55
Otago Dry Hill	\$3.85
Southland/South Otago Hill Country	\$2.75
Southland/South Otago Intensive	\$3.81
National	\$2.99
<b>Dairy</b>	(per cow)
Northland	\$43
Waikato/Bay of Plenty	\$64
Lower North Island	\$48
Canterbury	\$61
Southland	\$57
National	\$62
<b>Deer</b>	(per cow)
North Island	\$2.67
South Island	\$3.87
<b>Arable</b>	(per ha)
Canterbury	\$18

*Source: MAF Monitoring Reports - July 2003.*

### 2.3.2 Drenches/Vaccines/Bloat Control

#### Sheep Drenching Costs - Examples:

Tradename:	Nilverm	Valbazen	Levicare	Ivomec
Dose rate:	1ml/5kg	1ml/6.6kg	3ml/16kg	1ml/4 kg
Cost per ml:	0.6 cents	1.0 cents	0.48 cents	3.1 cents
Cost per 50 kg ewe:	6.2 cents	7.6 cents	4.5 cents	38.75 cents

### Cattle Drenching Costs - Examples:

Tradename:	Levicare	Fenben High Mineral	Valbazen	Ivomec Injection
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 cents	65 cents
Cost per 500 kg cow:	48 cents	99 cents	75 cents	\$6.50

### Drenches/Anthelmintics

#### Agmax Industries Ltd:

Ivermectin based Endectocide

Noromectin – Cattle – Pour On	1/2.5/5 litre	\$112.00/\$222.22/\$400.00
Noromectin – Cattle – Injection	50/500 ml	\$32.00/\$177.78
Noromectin – Sheep – Oral	1/5/20 litre	\$37.33/\$93.33/\$311.11
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 (LV = low volume)	500 ml/1 litre 5/20 litre	\$52.44/79.11 \$168.00/\$576.89

#### 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
Genesis Ultra Oral for sheep		1ml per 5kg	20litre	\$695

*Livestock Supplies (N.Z.) Ltd:*

Bio Start – Ruminant Calf	2 litre	\$109.00
Bio Start – Ruminant	2/5/10 litre	\$98/\$242/\$468
Bio Start Clover Plus	20 litre	\$272.00
Bio Start Digester	10 litre	\$160.00
Dairy Cow Minerals	4000 doses	\$82.40 per bag
Ewe Spray Mix	1000 doses	\$33.50
Lugals Iodine	1/5/10/20 litre	\$22/\$110/\$210/\$400
Potassium Iodate	kg	\$44.00
Potassium Iodide	kg	\$54.00
Nutrimag/Calmag/Flours of Lime	kg	\$0.94/\$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	\$225.00
Ivomec Pour-on	Cattle	1 ml per 10 kg	2.5 litre	\$275.00
	Deer	1 ml per 10 kg	5 litre	\$550.00
Ivomec Eprinex	Cattle	1 ml per 10 kg	250ml	\$51.00
			1 litre	\$162.00
	Deer	1 ml per 10 kg	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
Triton	Sheep	1 ml per 4 kg	5/15 Litre	\$232/\$585
Triton Tape	Sheep	1 ml per 4 kg	5/10 litre	\$310/\$555
Eqvalan Paste	Horse			\$20.00
Extender 100	Sheep		per ewe	\$2.61
Extender Junior			per lamb	\$2.44
Extender Se			per ewe	\$2.67
Extender SeCo			per ewe	\$3.04
Extender SeCo Junior			per lamb	\$2.61
Bloataid Dual			200 litre	\$1,127.00
Bloataid Super 45/11			200 litre	\$1,100.00
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	\$124.50
Scanda Sel	1 ml per 10 kg	10 litre	\$263.10
Valbazen Sheep (min)	1 ml per 6.6 kg	20 litre	\$221.30
Valbazen Cattle	1 ml per 20 kg	5 litre	\$150.20
Valbazen Combo	1 ml per 5 kg	20 litre	\$235.50
Closal	1 ml per 5 kg	20 litre	\$600.00
Erase MPC	1 ml per 4 kg	1.25 l concentrate to 25 l water	\$440.00

### **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
Genesis Ultra Pour-On	1ml per 10kg	5 litre	\$844

### **Vaccines**

*Ancare:*

	Dose rate	Unit size	Retail price
Viracare	3 ml per animal	90 ml	\$97.50

*Coopers:*

	Dose rate	Unit size	Retail price
Nilvax (sheep)	20 to 25 kg 3.5 ml 26 to 65 kg 4.0 ml >65 kg 4.5 ml	500 ml	\$60.50
Footvax	Sheep 1ml	50ml 250ml	\$60.70 \$172.70
Multine 5 in 1 (Plain, Selenised)	Sheep 2ml Cattle 4ml	500 ml	\$22.30
Lamb Vaccine (Plain/Selenised)	2ml	500 ml	\$60.50
Ovexin 10	Sheep 1 ml Cattle 2 ml	250 ml 500 ml	\$42.00 \$105
Salvexin +B	Sheep 2 ml Cattle 2 ml	250 ml 500 ml	\$74.70 \$136.7
Campylovexin	Sheep 2 ml	250/500 ml	\$58.70/\$110.70

### **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



		5 litre	\$373.75
<i>Coopers:</i>			
Formalin	Weak – 1litre per 50 litres water	20 kg	\$69
	Normal – 1litre per 20 litres water		
	Strong – 1 litre per 10 litres water		

*S.E.V.S. (Springs Ellesmere Vet Services)*

Bomatak pour on for cattle	5 litres / 20 litres		\$182.90/\$580.40
Genesis pour on	2.5 litres / 5 litres		\$579.15/\$1023.75
Eprinex pour on	2.5 litres / 5 litres		\$351.00/\$689.50
Maggo	1 litre		\$80.25

**Disinfectants:**

Ecopine ( <i>Ecolab</i> )	5 / 20 litre		\$30.00/\$76.00
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**2.3.4 Metabolics/Antibiotics**

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

A North Island Veterinary Service:

Product			Price
Glucalmag	milk fever complicated by grass staggers-	Flexipack	500 ml \$11.62
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 \$6.07
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	1.15
Australian Mg oxide	55%	18	1.95
Magnesium Chloride	12%	85	5.8

**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 (25 cents per injection once per month)	\$2.48
Selenium drenched daily 1.2 cents per day x 210 days	\$1.15

**Copper Treatment**

Costs per cow (for season):

Copperplan injection, 88 cents per dose x 2	\$2.10
Copacap, 20g bolus	\$3.45

Costs per calf:	
Copper capsule (Copacap 10 g)	\$2.03
Cobalt injection (Prolaject) 3ml at 17cents	\$0.51

### Antibiotics (for cattle)

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

Streptopen		\$4.87 per tube
Lactating Orbenin LA		\$5.51 per tube
Mastalone		\$6.84 per tube
Intracillin 1000 – intramammary	21 tubes per box	\$98.37

### Elanco Animal Health:

Tylan Injection	(1ml per 20 kg bodyweight)	\$36.00 per 100 ml
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### Dry Cow Treatment:

Cepravin	(generally sold in boxes of 80 tubes, also as single tubes)	\$3.82
Enduro dry cow therapy – per tube		\$3.55

### Other (for feet/ wounds/ post-parturient disorders etc.)

Engemysin	100/250 ml	\$37.86/\$78.40
Excenel	100 ml	\$139.37
Penstrep	100 ml	\$41.60
Uterine pessaries	each	\$6.04
Metricure	each	\$18.31

## 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:

**Note:** The 2003 survey covered a much smaller range of fees charged, than previously.

		Average
Farm visit	Including first 15 minutes	\$44.68
	Extra fee per 5 minutes	\$9.86
	After hours (over and above usual fee)	\$33.77
	After hours (total fee)	\$78.44
	Re-visit	\$33.82
	Advisory visit per hour	\$116.88
Travel charge per km		\$0.98
Pregnancy test	Manual (per head)	\$2.12
	Manual (per hour)	\$128.81
	Manual (per hour including aging)	\$134.71
	Scanning (per hour)	\$164.44

Source: Survey by the New Zealand Veterinary Association Inc. 2003.

**Deer :**

Pregnancy Test	\$2.00 to \$3.00
Develveting per animal	\$12.00 to \$25.00
Develveting cost does not include drugs and price is dependent on number of animals and handling facilities.	

**TB Testing**

*Agri Quality Ltd* charges for deer tuberculosis testing is as follows:

Field technician 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 laboratory charge of \$100	

**Calf Debudding/Dehorning:**

*Ultra-Scan Ltd:*

De budding (gas) - minimum of 20 calves	\$3.60 per calf
Calf dehorning with anaesthetic, two technicians and two twin crates (80 to 100 calves per hour).	\$3.60 per head

**Facial Eczema Tolerance Testing Fees (for rams):**

*Ag Research Ruakura: Ramguard*

No. of animals	Base Charge (Liveweight)			Surcharge (\$ per kg)
	30 kg	50 kg	70 kg	
0 to 12	\$88	\$116	\$143	\$1.38
13 to 15	\$77	\$105	\$132	\$1.38
16 to 20	\$69	\$96	\$122	\$1.32
21 to 30	\$64	\$89	\$114	\$1.27
31 to 40	\$58	\$83	\$107	\$1.21
41 to 50	\$50	\$78	\$101	\$1.16
51 to 60	\$51	\$73	\$95	\$1.10
61 to 70	\$47	\$68	\$89	\$1.05
71 to 100	\$44	\$64	\$84	\$0.99
>100	\$40	\$59	\$78	\$0.94

The surcharge is calculated on the weight above base weight i.e. for testing 30 animals with an average weight of 55kg, the charge would be \$89 plus 5 x \$1.27 i.e. \$95.35 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:*

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Drench Guns:		
Henke Drench-matic Drencher	23ml/30ml	\$88.84/\$141.33
Henke Vet-matic Drencher	5ml/10ml	\$111.11 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/\$62.18
Henke/Genia Nozzles	Thin/short/long hook	\$17.73 to \$111.11
Henke Drench-matic remote hook nozzle	1.4m	\$120.00
Henke/Genia Pour-on Nozzles		\$31.11/\$8.84
Auto Vaccinators:		
Drenche Vet-matic/Uni-matic/Ferro-matic	5ml/10ml	\$105.77 - \$124.40
Henke Pistol Grip	10ml/30ml/50ml	\$88.84 to \$102.22
S/Steel Hypodermic Needles (box 12)	14g - 20g (3/8" - 1")	\$4.75 to \$15.96
Intra-Rumen Needle	18cm x 2.6mm bore	\$31.07
Elplex Syringe	20ml to 50ml	\$14.08 to \$16.84
Syringe Drench Nozzle	Fits the Elplex syringe	\$12.40
Genia Syringe	300ml/450ml	\$62.17/\$79.96
Bloat:		
Bloat Knife		\$17.73
Trocar Plastic Screw	- 5mm	\$22.17
Trocar Stainless	- 9 mm/12 mm	\$53.29/\$35.51
Intra-Rumen Injector	300 ml/450 ml	\$84.44/\$93.33
Mastitis:		
Mastitis Tests	- Draminski (electronic)	\$665.78 to \$884.44
Concentrate Mastitis Test Solution	- 20 litre	\$79.11
Concentrate Kit	- 1 litre	\$23.07
Mastitis Test Paper	25 pack / 100 pack	\$6.18/\$22.67
Cow Hobbles:		
Webbing and Rings	20/35 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, 13x64mm	\$10.22 ea
Bovivet		\$7.33 ea
Bovivet Introducer		\$34.67
Scrotal Measuring Tape		\$71.07
Scrotal Measuring Wand	60 cm plastic wand	\$40.00
<i>Drench Gun Services Ltd:</i>		
Metal Injectors:		
1 ml Automatic Poultry Injector		\$82.50
1 ml/2 ml/3 ml/5 ml Automatic Injector		\$88.75/\$93.75/\$98.75/\$95.00

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5 ml Automatic Lever Action Injector	\$162.50
10 ml Automatic Injector	\$120.00
25 ml/50 ml Repeater Injector	\$110.00
1ml / 2ml / 5ml automatic injector with bottle attachment	\$106.25/\$108.13/\$111.88
<b>Drenchers:</b>	
20 ml Automatic Drencher	\$107.50
20 ml Automatic Drencher/Injector	\$124.38
30 ml Automatic Sheep Drencher	\$143.13
60 ml Cattle Drencher Automatic/Non-automatic	\$161.88/\$133.75
<b>Plastic Drenchers and Injectors:</b>	
1 ml/3 ml/5 ml Plastic Injector	\$20.00
3ml/5ml/12.5ml EziGrip Injector	\$28.75/\$31.25
10 ml Plastic Injector	\$20.63
12.5 ml Drencher/Injector	\$73.75
25ml/50ml Repeater Injector	\$81.25
20 ml Plastic Repairable Drencher	\$86.25
30 ml Plastic Non-automatic Sheep Drencher	\$93.75
<b>Jetting:</b>	
Dutjet Jetting Handpiece	\$160.00
Floating Hook	\$86.25
Sheep/Cattle Hook Nozzles	\$15.43/\$26.45
Sheep/Lamb Nozzles	\$17.87/\$22.25
2.5 /5 litre Backpacks	\$43.00/\$46.50
<b>Powered Instruments:</b>	
Powermaster 50ml Drencher/Pour on. Gas or Air powered	from \$518.75
<i>Instrument Supplies Ltd (Forlong &amp; Maisey):</i>	
<b>Vaccinators:</b>	
Standard Vaximate 1ml, 2ml, 5ml	\$17.95/\$19.95/\$20.95
V-Handle Vaximate 1ml, 2ml, 5ml	\$19.95/\$21.00/\$23.50
V-Handle Injector (complete) 10ml	\$24.95
V-Handle Drencher (complete) 10ml	\$31.95
<b>Drench Guns:</b>	
'Supershot' Drencher (metal) 50ml	\$165.00
'Supershot' Drencher (metal) 20ml	\$157.00
'Defender' Drencher complete (plastic)	\$76.50
'The Protector' Drencher/Pour On Gun 25ml	\$74.95
<b>Backpacks:</b>	
Flexipack Back Pack (complete) 5 litre	\$28.95
Back Pack (complete) 4.5 litre	\$37.95
<i>NuMedic:</i>	
<b>Complete Systems:</b>	
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 unmetred to deluxe metered	\$2,011
<b>Accessories:</b>	
Teat Sprayer 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	\$345

For calving and lambing equipment see *Section 2.3.16* (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:

Fees for pups depend on age. Prices include GST,

#### ***Buller District Council***

Entire/Desexed \$50/\$37

#### ***Gisborne District Council***

Urban Dog \$56.00

Working Dog \$32.00

Probationary Dog / Dangerous Dog \$82.50/\$150

#### ***Gore District Council***

Rural Dog \$11.00

Urban dog/Urban dog (de-sexed and fenced or controlled property) \$77.00/\$35.00

#### ***Hauraki District Council***

Working or Rural Dogs – Entire/De-sexed \$38.00/\$25.50

Urban Dogs – Entire/Desexed \$76/\$63.50

#### ***Kaikoura District Council***

Desexed or responsible dog owner \$29.00

Pet or working dog \$38.00

Three or more dogs \$89.00

#### ***New Plymouth District Council***

Rural 1<sup>st</sup> Dog / Rural 2<sup>nd</sup> and Subsequent Dogs \$32.00/\$16.00

Urban approved de-sexed/entire \$53.00/\$68.00

#### ***Ruapehu District Council***

Rural dogs \$15.00

Urban dogs / de-sexed dogs / selected owner policy dogs \$70/\$60/\$30

#### ***Waitaki District Council***

Owner Fee (Add category fee on top) \$14

- Working dogs/farm pet dogs/selected owner dogs \$9 per dog

- Non working dogs \$42 per dog

**Other Districts:**

Working/Rural Dogs (rebates often available on desexed dogs and for second/subsequent dogs)

Central Hawkes Bay	\$10 per dog	Tasman	\$17
Central Otago	\$10	Taupo (de-sexed)	\$35.50
Queenstown Lakes	\$25	Waikato	\$22.50
Southland	\$12.50	Wanganui	\$35
Tararua	\$13.50	Westland	\$30
		Whangarei	\$26

Dog Feed - see *Section 2.3.14*

**2.3.8 Breeding Expenses**

The average or range for each region is as follows:

<b>Sheep and Beef</b>	(per su)
Northland	\$0.43
Waikato/Bay of Plenty Intensive	\$0.25
Central North Island Hill Country	\$0.27
Gisborne Large Hill Country	\$0.30
Hawkes Bay/Wairarapa Summer Dry	\$0.29
Hawkes Bay/Wairarapa Summer Moist	\$0.29
Manawatu/Rangitikei Intensive	\$0.32
South Island Merino	\$0.21
Canterbury/Marlborough Hill Country	\$0.16
Canterbury/Marlborough Breeding and Finishing	\$0.23
Otago Dry Hill	\$0.27
Southland/South Otago Hill Country	\$0.33
Southland/South Otago Intensive	\$0.38
National	\$0.28

*Source: Sheep and Beef Monitoring Report - July 2003.*

<b>Dairy</b>	(per cow)
Northland	\$28
Waikato/Bay of Plenty	\$29
Lower North Island	\$27
Canterbury	\$29
Southland	\$28
National	\$31

*Source: Dairy Monitoring Report - July 2003.*

Deer	(per su)
North Island	\$0.68
South Island	\$1.03

Source: *Deer Monitoring Report - July 2003.*

### 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 2003 Alpha Nominated catalogue along with complete pricing details.

- Insemination fees for nominated semen are \$5.60 per insemination
- DIY training \$400 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	\$15.30	\$14.30
101 to 200	\$14.70	\$13.70
201 to 300	\$14.10	\$13.10
301 to 400	\$13.40	\$12.40
401 to 500	\$12.80	\$11.80
501 to 600	\$12.30	\$11.30
601 to 700	\$11.80	\$10.80
701 to 800	\$11.30	\$10.30
801 to 900	\$11.00	\$10.00
901 to 1000	\$10.70	\$9.70
1001 to 1100	\$10.40	\$9.40
1101 to 1200	\$10.10	\$9.10
1200 +	\$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 inseminations @ \$15.30	\$1,530
2nd 100 inseminations @ \$14.70	\$1,470
3 <sup>rd</sup> 100 inseminations @ \$14.10	\$1,410
4 <sup>th</sup> 20 inseminations @ \$13.40	\$268
320 inseminations	\$4,678

**Note:** These figures may be subject to discounts.

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

To ensure the most efficient distribution of semen it is essential that mating plans are as accurate as possible. As a result, *Livestock Improvement* reserves the right to charge a minimum of 70% of Premier Sires ordered based on these plans. For example: A mating plan of +200 cows to Premier Sires will result in a charge for at least 140 inseminations.

InvestaMate: If a mix of Premier Sires and Alpha Nominated is purchased a 3%, 5% or 10% discount applies if the following minimum requirements are met:

Inseminations and/or Nominated semen purchased must equal at least 95% of qualifying animals. Qualifying animals are females born prior to December 2001. The 95% must be made up of at least 60% Premier Sires with the balance being Livestock Improvement Alpha Nominated semen purchased in the current season.

Discount levels will be applied retrospectively once qualifications have been met, and are:

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

### **Cattle Embryo Transfer Fees:**

*Premier Genetics N.Z. Ltd.:*

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Travel and accommodation expenses are additional	
One Donor – programme and flush (including drugs)	\$550.00
Two Donors – programme and flush (including drugs)	\$500.00 per donor
Three Donors – programme and flush (including drugs)	\$450.00 per donor
Four or more Donors – programme and flush (including drugs)	\$400.00 per donor
Non surgical transfers – per embryo	\$85.00
Surgical Transfers	\$110.00
Special Rate: (Out of season only) Five or more donors. (includes flushes, transfers into recipients, freezing and drugs)	\$700.00 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

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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:*

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On Farm Collection	Farm Visit Fee	\$70.00
	Semen Collection and processing	\$3.50 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

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	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	Travel 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 \$375 per bull.

**Inducing Dairy Cows:**

A North Island Veterinary service charges the following for inducing:

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

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 2003:

1 to 2 donors	\$800 each (natural mating),	\$875 each (AI/ET) plus AI cost
3 to 5 donors	\$700 each (natural mating),	\$775 each (AI/ET) plus AI cost
6 to 10 donors	\$600 each (natural mating),	\$675 each (AI/ET) plus AI cost
11 to 20 donors	\$500 each (natural mating),	\$575 each (AI/ET) plus AI cost
Recipient Fees	Drugs, programming and surgery	\$125 each
Freezing embryos	Local use	\$25 per embryo (\$100 minimum),
	International export	\$40 per embryo

Thawing embryos

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	\$75 each
20 to 50 hinds	\$70 each
50 to 100 hinds	\$60 each
100 plus hinds	\$50 each

Cervical Insemination	
<10	\$25
<25	\$22
<50	\$18
<100	\$14
>100	\$12
Double Insemination for ET	\$40
Single Insemination for ET	\$30
Rejected animals	\$5
Travel (per km)	\$0.75

*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. center	\$2.50 per day
	Semen collection and processing	\$6.00 per straw
Sheep and Goat Laproscopic AI Fees		
	First 10 ewes	\$40 per ewe plus travel
	Second 10 ewes	\$35 per ewe plus travel
	All additional ewes	\$30 per ewe plus travel

**Sheep and Goat Embryo Transfer Fees:**

\$250 per donor plus \$50 per embryo transferred or frozen, plus mileage and accommodation.

**Sire Replacement:**

See Stock Purchases – see *Section 2.3.10*.

**Pregnancy Detection:**

Refer to *Section 2.4.8*

**2.3.9 Ostrich and Emu Incubation**

	Emu	Ostrich
Per egg into incubator	\$5	\$0 to \$5
Per chick hatched	\$15	\$20 to \$25
To raise emu chicks to 2 months	\$25 per month	
To raise ostrich chicks to 3 months		\$25 per month
To raise ostrich chicks 3 months to slaughter		\$20 per month
Breeder agistment		\$1 per head per day

NZOE has contracts to purchase 3 to 4 month chicks at 30 to 40kg.



### 2.3.10 Stock Purchases

#### Sheep

See also *Section 1.2.11* for ewes, two toothed and lambs

#### Rams

The following are approximate values for flock rams: (Use a guide only)

Dorset Down	\$300 to \$500
Corriedale	\$300 to \$600
Polled Dorset	\$300 to \$500
South Dorset Down	\$300 to \$550
Perendale	\$300 to \$500
South Suffolk	\$300 to \$500
Border Leicester	\$300 to \$450
Suffolk	\$300 to \$600
Borderdale	\$300 to \$550
Romney	\$300 to \$600
Coopworth	\$300 to \$700
Merino	\$300 to \$750

#### Exotic Breeds:

The following figures are some approximate values for flock rams:

Texel:	Average Pick	Range
Purebred	\$400	\$300 to \$600
7/8	\$300	\$250 to \$425
3/4	\$300	\$250 to \$425
1/2 (Dorset Cross)	\$350	\$250 to \$400
Oxford Down:		
Purebred		\$250 to \$350
7/8		\$200 to \$300
3/4		\$200 to \$250
1/2		\$200 to \$250
East Friesian:		
Purebred		\$300 to \$500
1/2		\$200 to \$300
Finnish Landrace: 1/2 bred		\$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 \$26,000
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 \$2,000 to \$4,000. 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 \$5,000.

**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. The fees will be shown separately on invoice statements.

Herd Test Fees

Visit Fee 1	\$240
Visit Fee 2	\$200
Visit Fee 3	\$100
Visit Fee 4+	\$50
Assist Fee (per labour unit)	\$160
Per cow test fee	\$1.35

**Goats**

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

Goat Owner Sampling (GOS) 25 animals or less attracts a \$50 discount per visit to the herd test fees above.

Investatest

Entry level for Investatest is 4 herd tests in a season. Clients will receive the Investatest discount after the fourth herd test and on the subsequent tests thereafter in the same season.

Discount levels for the 2003/2004 season are:

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

## MINDA

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

Monthly Herd Registration Fee is \$13

Monthly Animal Fee:

Paper – 20c for female animals born prior to 31 December 2001 (from 1 June 2003) and 10c for all other animals.

Electronic – 16c for female animals born prior to 31 December 2001 (from 1 June 2003) and 8c for all other animals.

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

Monthly Herd Registration Fee is \$6.50. Monthly Animal Fee is 10c per animal

MINDA Herd Management 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 -  
Optional Reports:

Not entitled to any reports  
The following reports including down-load files, are charged at \$12.00 per report plus 6c per animal listed on the report.  
Dairy Sale Catalogue is \$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

**Note:** All customised reports will be subject to an individual quotation. The basis of the quotation is \$60 per report, plus \$30 per hour spent on the report after the first hour.

### 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	\$23
Waikato/Bay of Plenty	\$20
Lower North Island	\$18
Canterbury	\$19
Southland	\$18
National	\$21

*Source: Dairy Monitoring Report - July 2003.*

## Detergents and Sanitizers

### Agmax Industries Ltd:

#### Dairy Hygiene Products:

Alkali Sachets Powder 100/250g	15 kg/25 kg	\$97.78/\$128.89
Alkali Sachets Powder 150g	25 kg	\$173.33
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/\$173.33/\$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
Sodium hypochlorite ( <i>Clark Products</i> )	5 litre (13%)	\$18.16

## 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	20 litre	\$164.45
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#### Shoof International:

(Prices include delivery on orders over \$50.00)

Udder Gold	1gBase+1gActivator/5gBase+5gActivator	\$123.56/\$576.89
4XLA22 / 4XLA55	2gBase+2gActivator/5gBase+5gActivator	\$105.78/\$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	\$24.89

### *Milka-Ware:*

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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

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### *Shoof International:*

(Prices include delivery on orders over \$50.00)

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Udder Sprayers:		
Udder Gun		\$440.00
Teat Sprayer Compact	480ml	\$19.11
Teat Sprayers Short and Long	1 litre	\$13.29/\$14.18

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Bovaloop Teat Sprayer		\$33.73
Teat Sprayer Trigger Jumbo	1.1 litre bottle	\$20.40
Teat Dip Cups		
Nunc	250 ml	\$12.89
Non-Return/Vordin	350 ml	\$17.73

*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/\$1,160
	184	3800W	71psi	415v	\$1,590
	185	6000W	77psi	415v	\$2,150

Dairy Shed In-Place Cleaning

Stainless Steel Centrifugal Pumps

Model	OCS 401	\$525.00
	OCS 403	\$655.00

*McNeill Drilling Co Ltd:*

Dairy wash down pumps close coupled motors

	kW	Pressure	litres per minute	
Dairy blaster 5.5P	5.5	30 (40psi)	500	\$1,991
Dairy blaster 7.5P	7.5	45 (64psi)	500	\$2,304

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

*C & F Industries*

Yard Wash Drum Tippers	\$166
Drum tipper extensions	\$47

**Note:** For complete dairy shed units see *Section 2.21.2*

**Annual Certification**

All farm dairies supplying to *Fonterra* must be assessed each season.

All NZ farm dairies producing milk for human consumption must have in place a Product Safety Programme (PSP) approved by the *New Zealand Food Safety Authority (NZFSA)*.

This PSP will include an annual Farm Dairy Assessment.

Recognised quality management system (eg AmFarm, BOFP, TQM) fee is now \$0.

Farm Dairy HACCP Inspection / Assessment fee is \$120.

### 2.3.13 Calf Rearing

Cost of Calf Rearing (*Source: I.M.Brookes, Massey University, December 2003*)

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 @ 30¢	\$105.00
Pasture:	0.5 kg DM per day for 56 days	28 kg @ 10¢	\$3.00
			\$108.00

#### (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 @ 30¢	\$63.00
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
			\$104.00

#### (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 @ 30¢	\$101.00
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
			\$120.00

#### (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 @ 30c	\$16.80
Milk powder	250 g per day for 28 days	7 kg @ \$3.00	\$21.00
High protein meal	Ad lib.	130 kg @ 74c	\$96.20
Straw	Ad lib.	1 bale @ \$4.00	\$4.00
			\$138.00

#### Feeding Equipment

<i>Agrifeeds Ltd:</i>		North Island	South Island
Agri-feeders	125/250 kg	\$115.50 each	\$150.15 each

#### *McInnes Manufacturing Ltd:*

Milk Feeders – Natural Suckling:			
Milk Bar Teat			\$2.63
Milk Bar Bottle			\$17.33
Milk Bar Bottle with frame			\$35.51
Milk Bar 1 to 12			\$26.58 to \$155.56
Milk Bar compartment 3,5 and 10			\$60 to \$155.53
Bunt Guard (fits MB5C)			\$66.67
Milk Bar Clips			\$8.44

Milk Bar 40 to 60 – single or double axle 500/700 litre	\$2,533 to \$3,462
Milk Bar teat tool	\$57.78
Griptite Calf Teat	\$2.89
Milk Bar Lamb 1 to 10	\$28.00 to \$110.00
Meal – Pellet Feeders:	
Braden Start Nipple	\$6.22
Braden Start Bottle	\$25.68
Snack Bar	\$36.89
Munch Trough	\$75.56
Meal Bar	\$168.88
Bird Proof Meal Bar	\$195.51
Bird Proof Curtain/Strips	\$44.00/\$6.22
Ezi-Ends Kitset trough ends	\$66.67
Waterers and accessories:	
Snack Water Trough	\$66.67
Portable Water Trough	\$102.22
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 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	\$288.89/\$440.00
Milk Feeders	3/8 spaces	\$79.96/\$150.22
Piglet Feeder Wallmount		\$34.62
Plastic/Stainless Creep Bowls	31 cm/25 cm diameter	\$62.18/\$88.84
Waterers /Medicator Kane	- for piglets	\$62.18
Water Nipples	Small piglet to fatteners	\$9.73 to \$14.18

**Calves:**

Magrath Fluidfeeder	With fully flexible probe for stomach feeding	\$33.33
Bovivet	Flexi probe for colostrum or electrolytes	\$32.84
Colostrometer	Milk tester Kruise/Quick-test	\$44.40/\$88.84
Calf Feeders	Heavy Duty	\$23.07
	Rail Bucket, bottom teats	\$61.33
	Peach Feeder (hand held or fence mounted, 3.5 litres)	\$31.95
Braden Start Feeder	fill bottle with pellets/meal/grains etc	\$31.11
Teats	Soda bottle (calf)	\$5.29 each
	Excal teat / cap assembly	\$7.07 each
	Heavy Duty	\$4.40 each

Calf Bucket-Drinking Dummy	Braden Start Feeder teats (floats in bucket)	\$6.44 each
Calf Drinking Water Nipple		\$4.40 each
Electric Milk Warmer	standard or teflon	\$26.62
Milk Powder Whisk	45 cm	\$443.56/\$488.00
Milk Powder Mixer	63 cm	\$29.29
Milk Powder Plunger	100 cm	\$31.07
		\$48.84

*Humes:*

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**

Refer to *Section 2.3.13* Calf rearing – feeding equipment

*Shoof International:*

Debudders Electric	SAMS Standard/High Power	\$128.89/\$265.78
	Quality/Heavy Duty	\$230.22/\$168.00
Debudders Gas	Vulcan Gas Cordless	\$265.78
	LPG/SAMS LPG	\$239.11/\$354.67
Replacement Tips	Electric	\$13.29 to \$26.62
	Gas	\$79.11 to \$93.33
Butane Gas Refill	250 ml	\$8.84
Barnes Debudder	32 cm economy/quality	\$38.18/\$62.18
	42 cm economy/quality	\$44.40/\$88.84
Debudding Paste	Hornex 20 g tube	\$4.67
	Dr Naylor 120 g safety capped pot	\$11.51
	White 175 g with applicator nozzle	\$21.29
Calf Neck Bands	10 pack	\$11.51
Calf Mothering Double Collar		\$31.07
Calf Handling Rope – 2.8 m long		\$20.40
Hay Rack Folding – 60cm square		\$53.29
BOS Calf Leg Splints		\$46.23
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

Anlamb	20kg	\$94.20
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#### *Elanco Animal Health:*

Rumensin Premix (Coccidiosis control and rumen modifier for dairy and beef cattle)		\$260 per 20 kg bag
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#### *Livestock Supplies (N.Z.) Ltd:*

Lamb Milk – Inlamb	10kg	\$45.00
Daisyvite Calf Milk	20kg	\$56.00

#### *McMillan Stockfoods:*

Calf Milk	20 kg	\$120.00
Foal Milk	2 kg	\$14.00
Promil	20 kg	\$60.00

#### *NRM feeds South Island*

Denkavit - lamb	10 kg	\$46.00
Denkavit - Calf	20 kg	\$56.50

#### *S.E.V.S:*

Reliance Milk Powder (lambs)	10kg	\$56.31
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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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#### Mineral/Nutritional Supplements

(See also *Section 2.3.4* for metabolics)

#### *Agrifeeds Limited:*

		North Island	South Island
Promag /Himag - Cattle	250kg drum	\$192.50	\$200.75
Calcium Enriched Molasses	250kg drum	\$181.50	\$189.75
Molasses – feedgrade	250kg drum	\$132.00	\$140.25
	per tonne bulk	\$315.70	\$315.70
Molasses - Blackstrap	250kg drum	\$143.00	\$151.25
Rumag – Cattle only	250kg drum	\$203.50	\$211.75
Rumax – Cattle only	250kg drum	\$181.50	Not available
Copper Sulphate	1 tonne	\$1,677.50	\$1,705.00
Magnesium Sulphate	1 tonne	\$495.00	\$522.50
Zinc Sulphate - Heptahydrate	1 tonne	\$946.00	Not available
- Monohydrate	1 tonne	\$1,199	Not available
Ferrous Sulphate	1 tonne	\$734.80	Not available

Sodium Bicarbonate	1 tonne	\$621.50	643.50
Palabind Powdered Molasses	1 tonne	\$1,045.00	\$1,072.50
Calcium Chloride	1 tonne	\$792.00	\$819.50
Zinc Oxide – Supa Zinc	1 tonne	\$2,783.00	Not available
Hyfat (99% palm oil beaded)		\$1,782.00	\$1,809.50
Mono propylene glycol	250kg drum	\$528.00	\$539.00
Agrimag Magnesium Oxide	1 tonne	\$467.50	\$495.00
Biochlor	1 tonne	\$1,628.00	\$1655.50
Magnesium Chloride Prills	1 tonne	\$500.50	\$528.00
Magnesium Chloride Flake	1 tonne	\$412.50	\$440.00

*Dominion Chemicals Ltd:*

	Size	Price
Energo-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	\$7.98/\$29.90
Molasses Palabind Powder	25 kg	\$29.50
Seaweed (Meal)	25 kg	\$100.75

*Bomac*

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	\$45/\$160/\$575/\$995
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*Livestock Supplies (N.Z.) Ltd:*

Bentonite – Granular/Trubond (fine)	\$0.45/\$0.58 per kg
Berger Fat	\$1.65 per kg
Bicarbonate of Soda	\$1.00 per kg
Bran	\$0.40 per kg
Calcium chloride	\$1.40 per kg
Chromium potassium sulphate	\$12.06 per kg
Copra meal	\$0.57 per kg
Dextrose	\$2.50 per kg
Diamond V yeast	\$3.10 per kg
Dicalcium phosphate	\$1.25 per kg
Fish meal	\$61.25 per bag
Garlic powder	\$6.95 per kg
Manganese Sulphate (feed)	\$1.40 per kg
Meat meal	\$14.00 per 25kg bag
Molasses – Calcium enriched	\$0.89 per kg
Molasses – Liquid (over 100kg costs \$0.40 per kg)	\$0.44 per kg
Molasses – Moldri/Palabind	\$0.78 per kg/\$1.30 per kg
Mono Propylene Glycol	\$2.90 per kg
Niacin	\$19.50 per kg

Prime	\$2.72 per kg
Seaweed – Meal	\$4.45 per kg
Soda ash	\$1.56 per kg
Vitamin A	\$95.00 per kg
Vitamin A.D.E.	\$46.30 per litre
Vitamin B2/Vitamin C	\$150 per kg/\$24.95 per kg
Vitamin D/Vitamin E	\$65.00 per kg/\$47.00 per kg

*McMillan Stockfoods:*

Horse	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

*Bell-Booth Ltd: Nutrimol*

Colostrum Keeper.	5/20 litre	\$23.75/\$59.50
Hi Energy (revitaliser/appetite stimulant for sick /weak livestock)	20 litre	\$180.00
Classic (A combination of 60 minerals and trace elements obtained from seaweed).	1 litre/5 litre/20 litre	\$15.25/\$56.00/\$200.00
Dosatron – Inline water dispenser - dispenses soluble products like Zinc, Mg, Salt, Molasses, Cu etc		\$1,122 to \$5,000
Caramillo – Masking Agent (Flavouring to mask drenches and trough water).	2 / 5 / 20 litre	\$25.00/\$57.00/\$190.00

Milking Cow Minerals:	Bag size	Price per bag	
	1 to 5 bags	40 kg	\$172.50
	6 to 24 bags	40 kg	\$168.00
	25 plus bags	40 kg	\$165.00
Delivered on-farm (South Island only)	12 to 25 bags	40 kg	\$165.00
	26 plus bags	40 kg	\$162.50
Dairy Heifer Lick:	1 to 10 bags	25 kg	\$38.50
	11 to 39 bags	25 kg	\$37.50
	40 plus bags	25 kg	\$37.00

Delivered on-farm (South Island only)	20 to 40 bags	25 kg	\$37.00
	41 plus bags	25 kg	\$36.50

*NRM Feeds (South Island):*

Product	Price per unit	Price per tonne
Hi Protein Sheep Blocks 20kg	\$17.93	\$896.50
Multi Block 20kg	\$16.50	\$825.00
Deer Feed Block 20kg	\$16.58	\$829.00
Hi Protein Cattle blocks 20kg	\$16.32	\$816.00
Teric Bloat Block (single 15kg)	\$35.80	n/a
Teric Bloat Block (pallet 64x15kg)	\$33.80	\$2163.00(pallet)

**Note:** Minimum 500kg, freight paid to merchant store for feed blocks.

**Salt**

*Agrifeeds Ltd:*

North Island only - Coarse/Medium/Fine	1 tonne	\$310.20
Rock Salt	1 tonne	\$748.00

*NRM Feeds – Summit Salt Blocks*

	Price per unit	Price per tonne
Multi-Mineral Salt Block 20kg	\$16.29	\$814.50
Multi-Mineral Salt Block	n/a	\$799.02
Magnesium Salt Block 20 kg	\$18.04	\$902.00
Copper Sheep/Cattle Salt Block 20 kg	\$18.04	\$902.00
Rock Block 20 kg	\$10.94	\$547.00
Littlix Multi-Mineral 8 x 2.5kg carton	\$16.29	\$814.50
Littlix Multi-Mineral 400 x 2.5kg bulk bag		\$753.68
Harvest Block 60 x 20kg	\$8.89	\$444.50
Rock Salt 50kg Bag	\$19.50	\$390.00
Littlox Block 8 x 2.5kg carton	\$10.94	\$547.00
Littlox Bulk 400 x 2.5kg bulk bag		\$547.06
Multi-Mineral Salt Mix 25 kg	\$20.36	\$814.40
Magnesium Salt Mix 25kg	\$22.54	\$901.60
AgSalt Fine 25kg	\$8.71	\$348.40
AgSalt Coarse 25kg	\$7.66	\$306.40
Equisal Electrolyte 2/10kg	\$16.21/\$61.57	

*Dominion Chemicals Ltd:*

Salt (Coarse/Medium/Fine)	25 kg	\$7.50/\$7.75/\$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	\$30.00
Ocean Thrift Sheep Lick	40 kg	\$23.00
Rock Salt	50 kg	\$20.00
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

*Bell-Booth Ltd:*

Loose Cattle Lick:		Bag size	Price per bag
North and South Island	1 to 5 bags	40 kg	\$57.50
	6 to 24 bags	40 kg	\$56.00
	25 plus bags	40 kg	\$55.00
Delivered on-farm	20 to 40 bags	40 kg	\$55.00
(South Island only)	41 plus bags	40 kg	\$54.00

**Concentrates Meal/Crumble/Pellet/Nut****Dairy and Calf Feeds***Harvey Farms: (North Island only)*

Dairy	Quantity	Price per tonne
Hi energy dairy pellets Maxum	25 kg/bulk	\$676.28/\$655.08
Topcow dairy	25 kg/bulk	\$534.24/\$451.56
Calves		
Topcalf cereal	25 kg	\$792.88
Topcalf 20	25 kg/bulk	\$731.40/\$703.19
Topcalf 16	25 kg/bulk	\$665.68/\$628.57

*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	n/a	\$524
NRG Pellets/Nuts – 25kg	\$15.10	\$604
NRG Pellets/Nuts – bulk bag	n/a	\$574.00
Breakfeed Advantage Pellets/Nuts - 25kg	\$14.50	\$580.00
Breakfeed Advantage Pellets/Nuts - bulk bag	n/a	\$550
Breakfeed Advantage Nuts/Pellets - bulk	n/a	\$500.00
Calcigard Concentrate Nut 25kg	\$15.50	\$620.00
Dairy Crumbles/Pellets Bulk Bag	n/a	\$520.00
Dairy Crumbles/Pellets Bulk	n/a	\$470.00
Steam Flake Dairy Bulk Bag	n/a	\$580.00
Steam Flake Dairy Bulk	n/a	\$530.00

Magnesium is available as an additive in Breakfeed Advantage at a rate of 20kg/tonne.

*Calves*

Moozlee Plus 25kg	\$19.15	\$766.00
Ready Rumen Plus 25kg	\$18.25	\$730.00
Grow Up Plus Pellets/Nuts 25kg	\$17.00	\$680.00
Grow Up Plus Pellets Bulk	n/a	\$600.00
Grow Up Plus Pellets Bag	n/a	\$650.00
Grow Up Finisher Pellets/Nuts 25kg	\$16.00	\$640.00
Grow Up Finisher Plus Pellets Bulk	n/a	\$560.00
Grow Up Finisher Plus Pellets Bulk Bag	n/a	\$610.00

*PCL Industries Ltd:*

	Bag size	Price/bag	\$/tonne
Megacalf	25 kg	\$22.70	\$908.00
Hi-Pro Calf Pellets	25 kg	\$21.16	\$846.50
Premium Dairy Meal	25 kg	\$18.30	\$732.00
Premium Dairy Pellets	25 kg	\$18.30	\$732.00

**Deer/Sheep/Beef and Goat Feeds**

*NRM Feeds Ltd: (South Island)*

Product	Price per unit	Price per tonne
Multifeed Nuts bulk	n/a	\$560.00
Multifeed Nuts 25kg	\$15.75	\$630.00
Multifeed Nuts bulk bag	n/a	\$610.00

*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	\$19.78 per bag	\$791.00 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 25 kg	\$18.35	\$734.00
Coolade 25 kg	\$18.60	\$744.00
Horse and Pony Pellets 25 kg	\$17.00	\$680.00
Horse and Pony Pellets Bulk	n/a	\$600.00
Affinity 25 kg	\$17.20	\$688.00
Mare Balancer Nut 25 kg	\$19.90	\$796.00
Prepare 25 kg	\$22.90	\$916.00
Assett 25 kg	\$19.75	\$790.00
Equine Balancer 25kg	\$28.00	\$1,120.00
KER Equi-Jewel 20kg	\$41.00	\$2050.00
Favourite 25 kg	\$19.75	\$790.0
Racehorse Pellets 25 kg	\$17.40	\$696.00
Racehorse Pellets Bulk	n/a	\$616.00
Lite Brew 25 kg	\$17.25	\$690.00
Performa 25 kg	\$23.00	\$920.00
Stud Concentrate 25 kg	\$24.25	\$970.00
Run Free 25kg	\$23.85	\$2050.00

**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 10/25kg	\$8.70/\$20.00	\$870.00/\$800.00
Hi Lay Super Mash 10/25 kg	\$7.26/\$16.40	\$726.00/\$656.00
Hi Lay Super Pellets 25 kg	\$16.65	\$666.00
Peck n Lay Gold Pellets 10/25kg	\$7.16/\$16.15	\$716.00/\$646.00
Peck n Lay Gold Mash 25kg	\$15.90	\$636.00
Meatbird Crumble 25kg	\$20.25	\$810.00

### **Pig Rations**

#### *NRM Feeds Ltd: (South Island)*

Product	Price per unit	Price per tonne
Pig Tucker Plus Nuts/Pellets 25kg	\$16.50	\$660.00
Original Pig Tucker Nuts 25 kg	\$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 \$645	\$520 to \$540
Blood Meal	\$795 to \$1,000	\$840 to \$970
Fishmeal	\$1,380 to \$1,450	\$1,300 to \$1,335
Skim Milk Powder	\$2,000	\$3,150
Skim Milk Blend	\$1,225 to \$1320	\$1,230 to \$1,350
Extra Soya Meal	\$590 to \$620	\$660 to \$720
Full Fat Soya	\$1,040 to \$1,140	\$1,100

Tallow	\$620 to \$890	\$620
Methionine	\$6.05 to \$6.70	\$5.50 to \$5.85
Soya oil (200 litre drum)	\$320 to \$400	\$315 to \$375
Lysine (per kg)	\$6.00 to \$6.85	\$7.50 to \$8.50

Source: *Pork Outlook, December 2003.*

### Feed Grains

*NRM Feeds Ltd: (South Island)*

Product	Price per unit	Price per tonne
Feedwheat 10/25kg	\$7.00/\$15.30	\$700.00/\$630.00
Whole Barley 10/25 kg	\$6.70/\$14.75	\$670.00/\$590.00
Steam Flaked Barley 25kg	\$15.50	\$620.00
Steam Flaked Maize 25kg	\$17.00	\$680.00
Shell 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 Plus 10/25kg	\$9.75/\$22.90	\$975.00/\$916.00
Rabbit Finisher Pellets 25kg	\$22.60	\$904.00

### Hay and Straw

(For contract hay baling see *Section 2.4.1.*)

Price depends on area, season and quality. Spring/Summer/Autumn 2003/2004 prices for average/good quality bales were approximately as follows:

		Conventional	Big Round Bale (10 to 15 bale equivalent)
<b>Canterbury</b>			
Hay:	Meadow	\$4.50	\$45 to \$60 <sup>2</sup>
	Lucerne	\$7.00	\$70 to \$100 <sup>2</sup>

Straw:	Ryegrass	\$2.50	\$25 to \$37.50 <sup>2</sup>
	Barley	\$2.00	\$20 to \$30 <sup>2</sup>
Silage/Balage:			<u>cents per kg/DM</u>
	Oat and Tares		\$0.11 to \$0.13
	Grass (good quality)		\$0.12 to \$0.15
	Lucerne		\$0.13 to \$0.16
	Maize		\$0.18 standing
	Cereal		\$0.15 standing
<b>Hawkes Bay</b>			<u>Big Round Bale</u>
Hay:	Meadow	\$4.50 \$500	\$45 <sup>1</sup> to \$75
	Lucerne	\$6.50 to \$7.50	
<b>Taranaki</b>			
Hay:	Behind Baler	\$3.50 to \$5.00	\$55 to \$75 <sup>1</sup>
	Standing	\$2.50 to \$3.00	
Silage:	Baled		\$55 to \$75 <sup>2</sup>
<b>Waikato</b>			
Hay:	Pasture	\$5.00	\$40 to \$65 <sup>2</sup>
	Lucerne		\$90 <sup>2</sup>
Silage:	Delivered	18c to 20c per kg DM	\$60 per round bale
	Standing	14 to 17c per kg DM	
Straw:	Barley		\$220 per tonne
<b>Southland</b>			
Hay:	Meadow		\$35 <sup>2</sup>
Baleage:			\$50

**Note:** <sup>1</sup> 15 small bale equivalents.      <sup>2</sup> 10 small bale equivalents

### Grazing Fees

At time of printing due to the season, prices for buying in feed and grazing stock of feed have increased considerably.

*New Zealand Grazing Co. Ltd.* is 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 2002/2003 were approximately:

## 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	See below
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 from calves to mating
Taranaki	\$5.00 to \$7.00 per head per week
Canterbury	\$4.50 per week plus bonus payment of 70 cents 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.

**Hawkes Bay** - grazing is now normally on weight gain contracts.

## 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	\$15.00 to \$20.00 per head per week plus freight
Southland	\$16.00 to \$20.00 per head per week
Canterbury	\$8.00 to \$16.00 per head per week
Hawkes Bay	\$8.00 to \$15.00 per head per week

## 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.

### 2.3.15 Wool and Shearing Expenses

	(per su)
Northland	\$5.31
Waikato/Bay of Plenty Intensive	\$4.93
Central North Island Hill Country	\$6.02
Gisborne Large Hill Country	\$5.75
Hawkes Bay/Wairarapa Summer Dry	\$5.50
Hawkes Bay/Wairarapa Summer Moist	\$5.76
Manawatu/Rangatikei Intensive	\$3.79
South Island Merino	\$6.31
Canterbury/Marlborough Hill Country	\$4.22
Canterbury/Marlborough Breeding and Finishing	\$4.38
Otago Dry Hill	\$4.80
Southland/South Otago Hill Country	\$4.20
Southland/South Otago Intensive	\$4.39
National	\$5.25

*Source: Sheep and Beef Monitoring Report - July 2003*

#### Shearing Rates

Approximate range only. Unless stated, travel has not been incorporated into these rates. Manawatu rates include one shedhand (at \$19.50 per hour) per shearer and a wool presser.

#### North Island: (per 100 sheep)

<b>Contract Rates:</b>	Manawatu	Wairarapa (incl. travel)	Wanganui
Full Wool	\$252	\$248 to \$255	\$265
Lambs	\$242	\$235	\$225
Second shear ewes	\$252	\$240	\$235
Full belly crutch, flank & wig	\$127	\$125	\$105
Half belly crutch, flank & wig	\$117	\$120	\$105
Full belly flank crutch	\$127	\$125	\$90
Full belly crutch & wig	\$127	\$120	\$85
Full belly crutch	\$117	\$105	\$100
Half belly flank crutch	\$117	\$105	\$95
Half belly crutch & wig	\$117	\$100	\$85
Half belly crutch	\$117	\$95	\$90
Fully crutch wig	\$107	\$85	\$75
Full crutch wig & pizzle	\$100	\$80	
Full crutch only	\$107	\$80	\$70
Tail crutch wig	\$100	\$75	\$70
Tail crutch wig & pizzle	\$80	\$75	
Tail crutch only	\$90	\$65	\$65
<b>Open Shearing Rates:</b>			
Full Wool	\$166	\$130	\$150
Crutching	\$84	-	\$120
Second shear ewes	\$166	\$130	\$150
Half belly crutch	\$74	-	\$100
Lambs	\$166	\$115 to \$120	\$130

**South Island:** (per 100 sheep)

Contract Rates:	Canterbury	Central Otago	Southland
Full Wool ewes - summer	\$240	\$260	\$280*
- cover comb	\$250	\$360	\$290*
Lambs	\$225	\$245	\$270*
Merino ewes	\$320	\$360	\$320*
Merino wethers	\$375	\$410	\$350*
Full belly crutch	\$95	\$110	\$140*
Half belly crutch	\$85	-	\$135*
Buttonhole crutch	\$70	\$90	\$110*
Open Shearing Rates:			
Full wool	\$143*	-	\$240
Lambs	\$130*	-	\$230
Full belly crutch	\$71.50	-	\$120
Wool handler rate	\$19.00	-	-
Presser	\$19.50	-	-

\* Includes meals and travel

**Blade Shearing** (Canterbury) per 100 sheep

Open:	Belly Crutched	\$206
Semi-Contract:	Belly Crutched	\$360
Full-Contract:	Belly Crutched	\$422

**Other Shearing Costs**

(Open) Canterbury

Shed hand rate	\$17.00 to \$21.00 per hour
Presser rate	\$19.00 to \$21.00 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:*

Sunbeam shearing plant	approximately \$1,750
Lister shearing plant	approximately \$1,250

*Williams & Kettle Ltd:*

Handpieces	
Sunbeam Supergrip /Sunbeam Regal /Heiniger Icon	\$666.67/\$693.33/\$648.89

**Combs and Cutters***Wrightsons:*

Combs:	Price per unit
Micro pacer/ mighty flight/ mighty nova	\$40.62
Flight wide comb 97mm	\$38.70
In flight quick shear/In flight 94mm	\$39.50/\$38.70

Heiniger charger	\$36.80
Force 12 hurricane	\$39.20
Cutters: Super AAA/Arrow	\$7.30/\$8.13
<i>Williams &amp; Kettle Ltd:</i>	
Sunbeam Combs	(average) \$40.89
Heiniger Combs	(average) \$38.45
Sunbeam Super AAA Cutter/ Heiniger Storm Cutter	\$7.91
<b>Electric Grinders</b>	
<i>Wooltech Industries Ltd:</i>	
Electric Grinders	range from approximately \$1,500
<b>Emery Papers</b>	
<i>Leader Products (NZ):</i>	
Shearers Emery – fine /coarse	\$5.33
Shearers Adhesive (standard or latex) 250ml/500ml/1 litre	\$6.93/\$10.22/\$19.56
<i>Williams &amp; Kettle Ltd:</i>	
Heiniger Emeries coarse/fine	\$6.18/\$5.29
Ramshead Emeries coarse/fine	\$5.87/\$5.29
<b>Woolpresses</b>	
<i>Lyc0 NZ Ltd:</i>	
Power Tech ‘S’ DOMINATOR 220v 3 phase/5hp 3 phase	\$13,960
<i>Wooltech Industries Ltd:</i>	
Average wool press	\$14,000
<b>Wool Tables</b>	
<i>Wooltech Industries Ltd:</i>	
4 m x 2 m to 6 m x 2 m	from \$450
<b>Wool Bale/Bag Trolleys</b>	
<i>Lyc0 NZ Ltd:</i>	
Bale/Bag Trolley	\$325
<b>Weighing System</b>	
<i>Wooltech Industries Ltd:</i>	
Average Iconix weighing system with 2 loadbars and an indicator 600mm/1000mm	from \$1,170/\$1,299

*Tru-Test Ltd:*

Eziway 2 scales system \$1,938

**Other Woolshed Expenses**

Tally counters	4 digit	\$18.20
	Heinger	\$14.44
Woolpacks	Synthetic capless	\$4.90
	Recycled	\$3.90

*Leader Products (NZ):*

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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 &amp; Millet</i> )	\$30.22
Wool sweep - telescopic	\$33.78
- wooden handle	\$19.56

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*Shoof International:*

(Prices include delivery on orders over \$50.00)

Hand Shears	24 cm to 29 cm	\$16.84 to \$21.29
	Hauptner (29cm straight/angled)	\$44.40/\$49.73
	Quality (25cm dagging/29cm straight)	\$44.40 each
	Black/Blue 29cm left hand/right hand	\$22.18/\$20.40
Sharpener	Burgon and Ball	\$15.07

*Williams & Kettle Ltd:*

Woolshed broom 6 tie	\$19.51
Woolsweep (wide) alloy handle	\$26.62
Bale clips, pack of 500, Maspro	\$17.73
Heineger tally counter	\$15.55
Woolpack – synthetic new/recycled	\$5.29/\$4.00
Davis latex glue, 300ml	\$7.96
Moccasins	\$31.11
Pendulum – Ellery	\$113.33

**Fibre Testing Charges***New Zealand Wool Testing Authority Ltd.:***Greasy Wool Testing Prices –**

Maximum of 12000 kg greasy wool per test	Test Method	Fee per 12000 kg part
<b>Standard Core tests</b>		
Yield, Mean Fibre Diameter and Colour	IWTO 19/ 28/ 56	\$58
<b>Miscellaneous Core tests</b>		
Fibre Diameter (Airflow) only	IWTO 28	\$28
Laserscan Fibre Diameter (Certifiable on Merino Wool)	IWTO 12	\$28
OFDA Fibre Diameter (not certifiable on its own)	IWTO 47	\$28
Colour Only	IWTO 56	\$28
Yield / VM only	IWTO 19	\$42
Yield and Airflow Fibre Diameter only	IWTO 19 / 28	\$50
Yield and Fibre Diameter (Laserscan or OFDA) only	IWTO 19 /(12 OR 57)	\$50
Yield and Colour only	IWTO 19 / 56	\$50
Colour and Diameter only	IWTO 56 / 28	\$36
Core Bulk	NZS8716	\$23
Medullation (OFDA) only	IWTO 57	\$28
Medullation Projection microscope	IWTO 8	\$110
<b>Tests in Addition to yield, airflow fibre diameter and colour</b>		
Medullation (OFDA)	IWTO 47	\$18
Fibre Curvature (Laserscan or OFDA)	IWTO 12 or 47	\$18
MFD, CVD (Laserscan or OFDA)	IWTO 12 or 47	\$18
<b>Length Tests</b>		
ATLAS staple length, strength and position of break when requested with core test	IWTO 30	\$49.50
Post sale tests or request not in conjunction with core tests	IWTO 30	\$65
<b>Check Tests</b>		
Fee per component per test		\$18
<b>Combination Certificates</b>		
Base fee per combination Certificate		\$10
Additional part fee	(per certificate)	\$5.50
Manual data entry fee for non NZWTA Certificates	(per external certificate)	\$5.00
<b>Additional Services</b>		
Coring hand drawn samples		\$18
Provision of keeper sample	(per 50g)	\$15
Express Fee (for 24 hour service)		\$8

### ***Pesticide Residue Tests***

Comprehensive test for Organophosphates, Organochlorides, Synthetic Pyrethroids, and Insect Growth Regulators.	\$120
Guidance Reports (on sample not taken in accordance with IWTO Core Test Regulations or where no regulations exist) the testing will be carried out according to the relevant IWTO test method however fees will be reduced by \$8.00	
Micron only reports	\$20
Colour only reports	\$20

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### **Scoured Wool Testing**

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<b><i>Scoured Wool Package</i></b>	Test Method	
Condition Test, Yield, Fibre diameter, Colour and Residue Grease		
- Base fee		\$95
- Per 100 kg fee		\$0.50
- Drying Can fee		\$13
<b><i>Individual component tests</i></b> (per 7000kg max)		
Condition Test	IWTO 33	
- Base fee		\$30
- Per 100kg fee		\$0.50
- Drying Can fee		\$13
Residual Grease	IWTO 10	\$10
Fibre Diameter only	IWTO 28,12 or 47	\$28
Colour only	IWTO 56	\$28
As is colour	NZWTA	\$28
<b><i>Tests in Conjunction with Airflow</i></b>		
Laserscan / OFDA	IWTO 12 or 47	\$18
Above tests if not requested in conjunction with airflow		\$28
<b><i>Additional core tests</i></b> (per 7000kg or part)		
pH test	IWTO DTM 2	\$30
Core Bulk	NZS8716	\$23
Yield including VM content / Ash / Alcohol Extractables	IWTO 19	\$42
Medullation (OFDA)	IWTO 57	\$28
Fibre curvature	IWTO 12 or 47	\$28

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<b><i>Length Tests</i></b>		
Length after Carding (maximum 30 tonnes)	NZS8719	\$165
Card Waste		\$32
Re-read of Carded sliver		\$80
Mean Fibre Length Report		\$85
Mill Package	Per 17,000kg	
Includes Scoured wool package fees	IWTO 19/28/32	\$225
- Laserscan	IWTO 12	\$28
- Length after carding	NZS 8719	\$165
- Card waste		\$32
- Core Bulk	NZS 8716	\$23
<b><i>Miscellaneous Services</i></b>		
	Per test per part	
Check Test		\$18
Wool Content on Fibre Blends		\$45
Loose Wool Bulk		\$30
Verification of documents (quality/quantity)		\$30
Reissue of Certificates		\$10
Typing official weight note / bale list	(per bale)	\$0.25
Provision of keeper sample	(per keeper – 50g)	\$15

*e-Lab.Testing Ltd (AFM) Invermay Research Centre:*

**Wool**

OFDA Fibre Diameter, FDSO, CV%	\$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	\$2.00
OFDA Fibre Diameter, Fibre Curvature and Opacity	\$4.00
Laminated Certificate (All data for individual animal)	\$12.00
Colour/Corebulk	POA

**Mohair**

OFDA Fibre Diameter, FDSO, CV% and histogram	\$3.00
OFDA Fibre Diameter, Full Statistics, Medullation and Kemp	\$6.00
Laminated Certificate (All data for individual animal)	\$12.00

**Cashmere**

OFDA Fibre Diameter, FDSO, CV% and histogram	\$3.00
OFDA Fibre Diameter, FDSO, CV% and histogram and down yield	\$18.00
Down yield only	\$15.00
Laminated Certificate (All data for individual animal)	\$12.00

**Alpaca**

OFDA Fibre Diameter, FDSO, CV% & Histogram	\$2.00
Laminated Certificate (All data for individual animal)	\$12.00



*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 \$5.25

**Sale lot Testing (IWTO Certification)**

Yield, Micron, and Colour \$59.00 excludes sampling costs.

Full range of IWTO Certified and or Guidance Reports available - POA

For further technical and price information visit [www.sgs-wts.com](http://www.sgs-wts.com) or phone 0800 00 00 60.

## 2.3.16 Stock Management

### Lambing Equipment

#### *Shoof International:*

(Prices include delivery on orders over \$50.00)

Lamb/kid teats		\$2.67 to \$4.95
Roslam lamb/fawn reviver (stomach feeder)		\$16.58/\$24.45
Stomach feeder (lamb/kid)		\$8.84
Non-vac bottle		\$11.51
Lamb feeding bucket – 6 teats or 6 screw-on teats		\$26.62/\$53.29
Lamb feeding station – five 1 litre compartments		\$150.22
Lambing rope – Slimline - 1m length	- 6mm braided polypropylene	\$7.07
Aid rubber sling	- 70cm length	\$7.07
Aid string snare	- plastic/nylon, 37cm	\$17.73
Bovivet/Genia ewe vaginal tape – 4mm x 5m/2.5mm x 5m		\$14.67/\$20.00
Vaginal tape needles (Aesculap)	- 15cm	\$61.33
Ewe bearing retainer	- complete with tie tapes	\$9.11 per 4
Ewe vaginal prolapse pin	- 7.5cm with 4cm clear shank	\$7.07 per 5
Macwells fostering oil, 40ml		\$16.44

#### *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

#### *Lycos N.Z. Ltd:*

#### Lamb Marking Cradles:

- Holdmaster cradle single	\$220
- Rollamaster standard model/Rollamaster contractor model	\$770/\$900

#### *Electro-Tek Engineering:*

Earmarkers:	Sheep	Cattle
	\$97.50 to \$122.50	\$122.50 to \$143.75
Double Cuts	from 155.25	from \$166.75
Double Agemarker	\$141.25	
Johne's Earmarker	\$122.50	

#### *Shoof International:*

(Prices include delivery on orders over \$50.00)

Ear Notchers	Small/ medium (Economy or Quality)	\$26.62 to \$84.40
	Large V or U (Economy or Quality)	\$44.40 to \$111.11

Rubber rings	100/500/2000	\$3.73/\$14.18/\$46.67
Castration ring applicator	Plastic	\$13.29
Castration ring applicator	Economy/Heineger	\$26.62/\$88.00
Elastrator ring 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 pliers		\$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
Leader marking rings	100 pack bag	\$2.58
	500/2000 pack container	\$9.47/\$34.67
Bulk Sealing Rings	1000	\$16.89

**Ear Tags and Leg Bands**

*Beattie Insulators:*

Black, white, grey, brown, green, yellow, orange, and purple (100 per pack)	\$9.49
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*Leader Products (NZ):*

Leader flexible two piece cattle tags

	Male		Female	
	Acronym	Price per 100	Acronym	Price per 100
Button 1 plain	M1 & LM1	\$37.33	F1	\$35.56
Medium 2 plain	M2 & LM2	\$48.00	F2	\$45.33
Large 3 plain	M3 & LM3	\$62.22	F3	\$61.33
Maxi 4 plain	-	-	F4	\$80.89
Mini 5 plain	M5 & LM5	\$37.33	F5	\$35.56

	Price per 100
Bell Tag plain	\$64.00
Leader Sheep Tags plain	\$18.67
Jumbo LeaderTag/ Multitags plain	\$18.67
Swivel Tags plain	\$21.33
New Leader Birth Tags	\$45.33
Aluminium Lapover Tags plain	\$54.22

*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	LaserInk Marking	Laser Marking
Double med yellow 1 set	DMY	\$1.80	\$1.73
Double med yellow 2 sets	DMY x 2	\$3.28	\$3.13
Double med 1 set & double button yellow 1 set	DM/DBY	\$2.22	\$2.15
Lg female med male yellow 1 set	MLY	\$2.03	\$1.96
Lg female med male yellow 2 sets	MLY x 2	\$3.73	\$3.59
Lg female med male 1 set & double button yellow 1 set	ML/DBY	\$2.45	\$2.38
Double lg yellow 1 set	DLY	\$2.23	\$2.16
Double lg yellow 2 sets	DLY x 2	\$4.15	\$4.01
Double lg 1 set & double button yellow 1 set	DL/DBY	\$2.65	\$2.58
Maxi female lg male yellow 1 set	XLY	\$2.44	\$2.36
Maxi female lg male yellow 2 sets	XLY x 2	\$4.56	\$4.42
Maxi female lg male 1 set & double button yellow 1 set	XL/DBY	\$2.86	\$2.78
Lg female button male yellow 1 set	LBY	\$1.70	\$1.63
Lg female button male yellow 2 sets	LBY x 2	\$3.08	\$2.94
Lg female button male yellow 1 set & double button yellow 1 set	LB/DBY	\$2.12	\$2.05
Maxi female button male yellow 1 set	XBY	\$1.90	\$1.82
Maxi female button male yellow 2 sets	XBY x 2	\$3.48	\$3.34
Maxi female button male yellow 1 set & double button yellow 1 set	XB/DBY	\$2.32	\$2.24
Med female button male yellow 1 set	MBY	\$1.28	\$1.21
Med female button male yellow 2 sets	MBY x 2	\$2.24	\$2.10
Med female button male 1 set & double button yellow 1 set	MB/DBY	\$1.70	\$1.63
Secondary only: button female button male yellow 1 set	DBY		\$0.59
Direct to slaughter: Hermatag one piece yellow	Hermatag		\$0.59

*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	\$17.73
Leg Bands	10 pack (one colour / mixed)	\$13.29/\$17.73
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 (Donaghys)	\$8.22
Stick Raddle (Donaghys)	\$1.33 per stick

### *Shoof International:*

(Prices include delivery on orders over \$50.00)

Cull Cow Paint (425ml)	\$9.73
Spray Writer – 6 fluoro colours (425ml)	\$9.11
Paintstik – Standard / Fluoro	\$3.33/\$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 Economy	4 x 10mm digits	\$120.00
Standard/ Revolving Head	4 x 10mm digits	\$128.89/\$176.89
Baby/Small Animal	0-9 set/A-Z set	\$88.84/\$208.89
Tattoo Digits (std/sm animal/pet)	set 0-9	\$44.40
Tattoo Digits(std/sm animal/pet)	set A-Z	\$114.67
Tattoo Ink	28g tube black/green/140g green	\$7.56/\$10.62/\$34.89
	85 g pot black/700g pot black	\$11.51/\$50.36
	Black/green roll-on	\$9.73/\$13.29
Freeze Branding (0 to 8 set)	50 mm/ 75 mm/100 mm	\$328.00/\$395.56/\$466.67
Brandabull <sup>©</sup> ™ 2",3",4"	A-Z digit sets only	\$577.78/\$577.78/\$1035.56
Brandabull <sup>©</sup> ™ 2",3",4"	0-9 digit sets only	\$221.33/\$221.33/\$422.22
Brandabull <sup>©</sup> ™ 3"	Complete set	\$706.67

### *Pigs:*

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Tattoo Hammer standard/deluxe		\$88.00/\$111.11
Digits	Set A-Z, 0-9	\$10.00 each
Ink Pad and tin	12 cm diameter	\$16.84
Neoprene ink pad		\$71.07
Ketchum rotary tattoo machine		\$644.44

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*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)	\$263.75
Manual calf de-horner	\$40.00
Scully Junior (blades \$122.00, handle \$34.00)	\$285.50
Keystone Dehorner (blades \$162.00, handle \$45.00)	\$349.00
Gas LPG Gasmate (head \$37.50)	\$199.50

*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)

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Keystone Heavy Duty	V shaped jaws, 9cm opening, 8kg, 115cm	\$354.67
Keystone Large Convex	Parrot beak jaw, 6.3cm opening, 7.5kg, 104cm	\$354.67
Keystone Small Convex	For younger stock, 4.5cm opening, 2.7kg, 79cm	\$301.33
Concave Blade Dehorner	20mm concave, 58cm to 78cm	\$354.67/\$431.11
Yearling Concave	15mm concave, 2.6 kg, 56cm	\$377.78
Dehorner Wire Saw	10m wire	\$15.56

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Kruise

Dehorner Wire Saw	50cm can be used with dehorning wire handles	\$8.84
Bridle		
Keystone Dehorning Packing (25 pack)		\$44.40

### **Hoofcutting**

*Electro-tek Engineering Ltd:*

Hoofcutter double action \$115.00

*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 \$40.00

Double Action Lightweight \$176.89

#### Hoof Knives:

Plain s/edge or d/edge, LH or RH \$8.84

Plain Set 6 specialist blades in a tidy zip pouch \$70.22

Stainless Steel s/edge, LH or RH \$27.78

Aesculap/Genia d/edge, LH or RH \$29.29 to \$44.40

Genia Extra Fine/Farrier LH or RH \$53.29

Genia Eye Loop small/large \$84.40

Paring Knife \$11.51

Eye Loop Knife/Quittor Knife \$15.96/13.11

#### 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 straight or curved \$35.51

Carbon Steel Heavy plain or with handle \$33.73/\$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**

*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)

<b>Bull Rings</b>		
Bronze Wagner USA	S/M/L/Dairy	\$15.96/\$17.73/\$20.40/\$17.73
Swivel Stainless	Small/large	\$15.07/\$22.18
Hinged Stainless	Small/large	\$15.96/\$17.73
<b>Bull ring applicators</b>		
Economy/Quality		\$26.62/\$111.11
Swivel Rings Applicator		\$88.00
Bull Nose Punch	Standard/Quality	\$48.89/\$93.33
<b>Bull Holders</b>		
Harms	19cm, Economy/Quality	\$22.18/\$61.33
Pliers Rope/Pliers Chain type	20cm	\$35.51/\$23.07
Self Locking	Aluminium Quality	\$39.96
Spring Close - Lightweight alloy, 12 to 13cm		\$26.62

**Electric Prodders**

*Shoof International:*

(Prices include delivery on orders over \$50.00)

Picador Universal (23cm)	\$111.11
Kawe Universal (23cm)	\$150.22
Compact (pocket size) inc battery	\$53.29
Hot Shot "Blue" Economy (70cm)	\$168.00
Hot Shot shaft (32cm to 81cm)	\$230.22 to \$248.00
Hot Shot Power Mite	\$128.89

*Leader Products:*

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**

*Stockyards Inc: (ex Te Kauwhata)*

**Weighing Systems**

Tru Test	MP600 loadbars	\$1,025
Gallaghers	Smart Scale 200	\$1,620
Gallaghers	Smart Scale 300	\$1,975
<b>Weighing Platforms</b>		
Standard	2.0 m x 0.6 m	\$550

L/bar channel (pair)		\$69
L/bar feetplates (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		\$1,302
3 way autodrafting sheep crate (includes Tru-Test indicator and load bar)		\$10,512

*Heenan Engineering Company Ltd*

Heenan weighbridge weighing and 3 way drafting system		from \$4500
Iconix – indicators		from \$822
Iconix - load bars		from \$867

**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		\$1,060/\$720

*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
Package price for Aloka SSD-500 plus Aloka UST-588U-5 lge animal probe		\$22,500

**Dog Trainers**

*Agtronics Pet Training Products:*

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/Vink	\$200.00/\$244.44/\$288.89

*PETA Enterprises:*

Cow Jack – lifting device for downer cows		\$1,600
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*Leader Products (NZ):*

Elfin Cow Sling \$212.00

**Mating Devices**

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Ram Crayons – Soft (Donaghy’s) \$3.68  
Tail Paint 1 litre bottle/10 litre tin \$11.00/\$79.95  
Kmar Heat detectors (including glue) \$199 per 100

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*Leader Products (NZ):*

Chinball \$129.78  
Chinball fluid 1 litre \$27.56

**Calving Aids**

*Electro-tek Engineering Ltd:*

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Calving Chain Handles (stainless steel) \$30.60  
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

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*Shoof International:*

(Prices include delivery on orders over \$50.00)

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Calving Chain Handles \$22.18 to \$43.51  
Calving Ropes 7mm economy, single/double end \$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 \$22.18 to \$35.51  
- Stainless Steel \$31.07 to \$62.18  
- Stainless Steel Quality \$57.78 to \$93.33  
Calf Pullers - HK E11/HK E20/HK E21 \$488/\$532.44/\$665.78  
- Straps, low trauma \$17.73  
- Two Pulley Kruuse \$230.22  
Calf Puller Ropes (pair) - traction ropes to fit any machine \$17.73  
Obstetric Head Snare - Rod-type \$61.33  
- Cable-type \$84.44  
“Vink” Calving Jack - Standard \$665.78 to \$760.00  
- Beef Cattle \$888.00  
Obstetric Lubricant - 1 litre/2 litre/5 litre \$7.07/\$10.62/\$22.18  
- 20 g/1 litre powder sachet \$1.73  
Resuscitator HK Calf - 2 way air pump with rubber nose-mask \$200

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*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 – .760m/1.52m \$18.67 to \$32.00  
Calving ropes (2) \$16.89

Obstetrical straps – .760m/1.52m	\$22.22 to \$32.00
Calf assist	\$41.33
Large obstetrical hook/Small eye hook	\$16.89/\$15.11

### **Calf Covers**

*Shoof International:*

(Prices include delivery on orders over \$50.00)

Thermal Cover - ‘Super Cover 30’	\$62.18
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*Straitline Canvas Ltd:*

	Length, wither to Tail	Quantity (prices include GST)			
		1	10	50	100
Animac Polyethylene Calf Covers	650/800 mm	\$7.30	\$62	\$274	\$512
Jute Calf Covers Strap/Buckle	650/800 mm	\$17.95	\$152	\$672	\$1,255
Jute Yearling Covers Strap/Buckle	950/1100 mm	\$37.10	\$315	\$1,391	\$2,599
Jute Cow Covers Strap/Buckle	1275 to 1575mm	\$37.90	\$341	\$1516	\$3,032

### **Horse Shoeing**

A farrier in the Canterbury region charges \$90 to \$120 for hot shoeing, \$60 to \$85 for cold shoeing and \$15 to \$20 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	\$39.95 to \$546.56
Saddles (Caprilli all-purpose)	\$1773.33
Covers Lightweight/ Winter Weight Combo	\$176.89/\$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		\$110 per hour
Tedding/raking (5m rake)		\$85 per hour
Baling:	- Conventional	\$1.00 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, row and bale

	- Conventional	- more than 100 bales	\$2.50 per bale
		- less than 100 bales	\$3.00 per bale
		- less than 50 bales	\$3.50 per bale
	- Large round	- 15 bale equivalents	\$23.00 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		\$115 per hour
Baling	Conventional bale	\$1.25 per bale
	- includes rowing up	
	Medium square (10 bale equivalent)	\$27.30 per bale
	- includes raking, wrapping and stacking	

#### Hawkes Bay:

Baling	Large square bale	8 to 10 equivalent	\$13 per bale
Mowing			\$56.25 per ha
Raking			\$31.25 per ha

#### Canterbury:

Medium square bales	2 metre (10 bale equivalent)	\$9.50 per bale
Mower conditioner	3 metre	\$136 to \$176 per hour
Mowing		\$95 per hour
Mower Conditioner	8 metre	\$267 per hour
		\$19 per ha
Hay Baling	Conventional	\$1.20 per bale
	Large Round (14 bale equivalent)	\$11.00 per bale
	Medium Square (10 bale equivalent)	\$10.00 per bale
Mower Conditioner	6 meter	\$200 to \$280 per hour
Loader		\$115 per hour

Truck		\$80 per hour
Hay Baling	Conventional	\$1.00 per bale
	Medium Square (10 to 12 bale equivalent)	\$11.00 per bale
	Large Round/Square	\$12.00/\$12.50 per bale
<b>Southland:</b> (2002 prices)		
Medium square bales 2.13 metre (includes raking plus balage )		\$10.00
Medium square bales 2.13 metre (includes raking, wrapping, balage)		\$18.50
Cartage per bale		\$1.00

## 2.4.2 Silage

Some examples of contractor's charges are as follows:

### Canterbury:

Bale and Wrap – round/medium square balage		\$8 /\$10 per bale
Wrapped baled silage	Medium Square	\$16 per bale
	Large Round	\$18 per bale
To make the silage		\$3.75 per cubic metre or 5 cents per kg DM
To make balage		7 cents per kg DM
Mower Conditioner	8m	\$267 / hour or \$19 / ha \$19 per ha
Chopper		\$425 per hour
Loader		\$115 per hour
Cartage		\$3.50
Mobile Weighing bridge	\$10 per truck	

### Waikato:

Silage chopper 530hp	Grass	\$450 per hour
	Maize	\$450 per hectare
Trucks		\$90 per hour
Wrapped baled silage	Rowed, wrapped, baled	\$27.30 per bale
Medium square	10 bale equivalent	\$27.30 per bale
Stack tractor	200hp	\$120 per hour
Loader wagon	30 or more cubic metres	\$170 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, bale and wrap		
- size 10 bale equivalent 1.25 m		\$27.00 per bale
- size 12 bale equivalent		\$28.50 per bale

### 2.4.3 Cultivation/Drilling

#### Canterbury:

One typical contractor's rates are as follows:

	Rate per hectare	
Ploughing	\$95	
Grubbing	\$35	
Harrowing	\$35	
Mowing	\$50	
Ploughing (with tractor) 135, 150 or 200 hp	\$160 per hour	
Reversible ploughing per ha	\$85 to \$90	
Subsoiler/Ripping - 7 legs, 4.5m to 700mm deep per ha	\$65 to \$120	
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	\$85	
	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
Power Harrowing		\$75
One pass Power Harrowing Drilling		\$115

One Canterbury Contractor charges \$100 per hour for all cultivation, covering an average of 2 to 3 ha per hour

#### *Other Contractors in Canterbury:*

Ploughing – 8 furrow	\$112 per hectare
Chisel Ploughing	\$38 per hectare
Grubbing	\$22 per hectare
Discing	\$50 to \$55 per hectare
Heavy Rolling	\$40 to \$45 per hectare
Power harrow / Drilling combination 6m	\$112 per hectare
Direct Drilling	\$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	\$60 per hectare
Discing and rolling	\$58 per hectare
Hoe and sow	\$128 per hectare
Sow only	\$65 per hectare

Rotary hoeing/Power harrowing/Ripping - \$118 per hour on average, 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.

Wheat, Oats, Barley, Peas and Lentils	\$167 per ha
Peas – One way	\$179 per ha
Borage, grass seed and mowed clover (pick up work)	\$192 per ha
Direct heading of clover	\$222 per ha
Specialty Crops eg Radish	\$450 per hour

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 \$235 per hectare for maize.

In Waikato the average rate for heading is \$270 per hectare for maize. Binning is charged at \$30 per hectare.

Squash harvest – Hawkes Bay	\$38 per bin
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### 2.4.6 Oversowing

Waikato:

For aerial seeding with a fixed wing plane, \$1 per kg or \$100 per tonne is charged depending on application rates, seed weight and area sown. Very little is done now and is often mixed in with fertiliser, so not charged separately.

Otago:

For aerial seeding in a fixed wing plane, \$3 per hectare to \$10 per hectare is charged depending on application rates and distance of block.

### 2.4.7 Dipping

Sheep Dipping (Canterbury): Costs are between \$0.70 and \$2.20 depending on winter or summer dipping, and 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

*Scan Plus :*

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

*Ultra-Scan Ltd :*

Cattle:	with a minimum charge of \$50.00	\$1.90 to \$2.10 per head
Sheep:	(minimum of 300)	
	Wet/dry	\$0.40 per head
	Twin	\$0.50 per head

## 2.4.9 Muscle and Fat Detection

### *SheepScan:*

Sheepscan generate information that Stockscan then run through a programme to generate ranking information.

<100 animals \$3.90 per head  
>100 animals \$3.75 per head

## 2.4.10 Miscellaneous Contracting

### **Canterbury:**

Shelter belt trimming	\$130 per hour
Tree topping	\$230 to \$250 per hour
Digging of offal pits trenches drains etc – (minimum of 1 hours work required)	\$150 to \$200 per hour
Post driving	\$85 per hour
Tailing	\$70 to \$80 per hour
Bulldozing	\$175 to \$220 hour

### **Taranaki:**

Shelter belt trimming	\$100 to \$135 per hour
Tree topping – with a chainsaw	\$30 per hour
Bulldozing	\$75 to \$120 per hour
Hedge mulching – barberries and boxthorne	\$88.00 per hour
General tractor work with 7 tonne trailer	\$75 per hour

### **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:

<b>Sheep and Beef</b>	(per su)
Northland	\$0.59
Waikato/Bay of Plenty Intensive	\$0.70
Central North Island Hill Country	\$0.45
Gisborne Large Hill Country	\$0.39
Hawkes Bay/Wairarapa Summer Dry	\$0.57
Hawkes Bay/Wairarapa Summer Moist	\$0.57
Manawatu/Rangatikei Intensive	\$1.06
South Island Merino	\$0.48
Canterbury/Marlborough Hill Country	\$0.90
Canterbury/Marlborough Breeding and Finishing	\$0.49
Otago Dry Hill	\$0.52
Southland/South Otago Hill Country	\$0.53
Southland/South Otago Intensive	\$0.99
National	\$0.63
<b>Dairy</b>	(per cow)
Northland	\$33
Waikato/Bay of Plenty	\$32
Lower North Island	\$33
Canterbury	\$59
Southland	\$25
National	\$40
<b>Deer</b>	(per su)
North Island	\$1.25
South Island	\$1.07
<b>Arable</b>	(per ha)
Canterbury	\$63
<b>Horticulture</b>	(per ha)
Kiwifruit	\$190
Hawkes Bay Pipfruit	\$144
Nelson Pipfruit	\$211

Source: MAF Monitoring Reports - July 2003.

## **2.5.2 Regional Electricity Charges**

*Meridian:*

### **Waikato (WEL network)**

MeridianPlus Anytime 13.92 cents per kWh

MeridianPlus controlled 6.99 cents per kWh

MeridianPlus Daily 49.48 cents per day

Prompt payment discount is 5% (will change to 10% with 1 April 2004 price changes)

### **Canterbury (Orion network)**

MeridianPlus Anytime 14.57 cents per kWh

MeridianPlus Daily 53.08 cents per day

Prompt payment discount is 10%

MeridianPlus Irrigation 5.82 cents per kWh, summer

MeridianPlus Irrigation 9 cents per kWh, winter

MeridianPlus Capacity 89.08 cents per kW per day, summer only

MeridianPlus Daily 53.08 cents per day

Prompt payment discount is 10%

### **Southland (The Power Company)**

MeridianPlus Anytime 11.00 cents per kWh, summer

MeridianPlus Anytime 13.52 cents per kWh, winter

MeridianPlus Daily 161.2 cents per day (30kVA – 3 phase capacity)

Prompt payment discount is 10%

## **2.5.3 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 metres, 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)
<b>Superten</b>							
-	10	0	11	22	-	Superten	\$167.00
-	9	5	10	20	-	10% potash superten	\$189.90
-	8	8	10	19	-	15% potash superten	\$198.35
-	8	10	9	18	-	20% potash superten	\$206.80
-	7	15	8	15	-	30% potash superten	\$223.70
-	5	25	6	11	-	50% potash superten	\$257.50
<b>Pasturezeal</b>							
3	10	-	10	-	22	Pasturezeal	\$193.00
3	9	5	9	-	20	Pasturezeal 5K	\$213.30
3	8	7	9	-	19	Pasturezeal 7K	\$219.00
2	8	10	8	-	18	Pasturezeal 10K	\$227.60
2	7	15	7	-	15	Pasturezeal 15K	\$241.90
<b>Pasturemag</b>							
							South Is / North Is
7	6	-	7	4	14	Pasturemag	\$196.65/\$200.90
6	5	5	7	4	13	Pasturemag 5K	\$214.50/\$218.30
6	5	8	6	4	12	Pasturemag 8K	\$221.90/\$225.45
6	5	10	6	3	11	Pasturemag 10K	\$229.35/\$232.70
5	4	15	5	3	10	Pasturemag 15K	\$244.15/\$247.10
12	5	-	6	4	13	Pasturemag 12N	\$219.75/\$223.50
6	5	-	16	4	13	Pasturemag 16S	\$214.40*
6	5	6	11	3	15	Pasturemag peat	\$227.70**
6	5	6	11	3	15	Pasturemag pumice	\$227.70**
<b>Urea</b>							
46	-	-	-	-	-	Urea Bulk	\$416.00*
46	-	-	-	-	-	Urea 40 kg	\$434.00*
46	-	-	-	-	-	Urea 500 kg	\$434.00*
41	-	-	14	-	-	Ammo	\$346.10*

N-rich							
46	-	-	-	-	-	N rich urea bulk	\$384.00**
46	-	-	-	-	-	N rich urea 40 kg bagged	\$434.00**
46	-	-	-	-	-	N rich urea multi-trip refills	\$394.00**
31	-	-	14	-	-	N rich ammo	\$346.10**

Cropzeal							
14	15	13	1	-	-	Cropzeal 15P	\$433.15
16	8	10	10	-	-	Cropzeal 16N	\$384.00
20	10	0	12	-	-	Cropzeal 20N	\$390.75
6	5	7	6	4	12	Cropzeal brassica base	\$236.10*/\$239.60**
5	5	5	11	4	11	Crop fertiliser	\$223.30**

Hydro							
14	5	15	1	1	4	Hydro green	\$475.00
27	-	-	-	2	4	Hydro can	\$355.00
12	5	15	8	2	3	Hydro complex	\$545.00

Sulphur Fertilisers							
-	9	-	15	-	20	Sulphur super 15	\$166.20
-	8	-	21	-	20	Sulphur super 20	\$170.00
-	7	-	30	-	18	Sulphur super 30	\$176.00
-	6	-	47	-	14	Sulphur super 50	\$207.25*
-	7	8	17	-	17	15% Potash sulphur super	\$198.35
-	7	10	16	-	16	20% Potash sulphur super	\$206.40
-	6	15	14	-	14	30% Potash sulphur super	\$224.20
-	5	25	10	-	10	50% Potash sulphur super	\$263.00
-	-	-	100	-	0	Durasul	\$335.00

Phosphate Fertilisers							
-	21	-	-	-	14	Triple superphosphate	\$440.00
-	15	-	6	-	18	Superxtra	\$309.50**
-	13	-	1	-	35	Gafsa RPR	\$213.00

Potash Fertilisers							
0	0	50	0	-	-	Muriate of potash	\$336.00
0	0	40	17	-	-	Sulphate of potash	\$527.00
-	12	10	5	-	14	20% Potash superxtra	\$319.00**
13	6	17	9	-	-	Revive	\$372.00**

Nitrogen Fertilisers							
21	-	-	23	-	-	Sulphate of Ammonia	\$312.00
18	20	-	1	-	0	DAP	\$457.50

11	15	-	12	-	7	DAP sulphur super	\$350.90
9	12	10	10	-	6	20% Potash DAP sulphur super	\$350.50
6	7	-	15	-	16	Nitro boost	\$212.15*

### Magnesium Fertilisers

South Is./North Is.

N	P	K	S	Ca	Mg		
-	7	-	9	5	17	Serpentine super	\$153.00/\$158.00
-	6	8	7	4	14	15% Potash serpentine super	\$186.45/\$190.70
-	5	10	7	4	13	20% Potash serpentine super	\$195.60/\$199.60
-	5	15	6	4	12	30% Potash serpentine super	\$213.90/\$217.40
-	3	25	4	3	9	50% Potash serpentine super	\$250.50/\$253.00
-	7	-	19	3	17	Serpentine gold	\$172.00*
-	9	-	10	5	20	Magphos	\$185.50**
-	7	8	9	5	17	15% Potash magphos	\$213.85**
-	6	15	7	5	14	30% Potash magphos	\$239.20**
-	-	-	-	54	3	Calcined magnesite (Calmag)	\$292.00**

### South Island Specialty Fertilisers

-	11	-	11	-	24	Double eleven	\$202.00*
-	10	-	17	-	23	Tussock	\$202.00*
-	6	12	16	-	14	Lucerne mix	\$240.30*
-	5	11	14	2	13	Lucerne fertiliser	\$234.80*

\* 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)
Copper Sulphate	25kg	\$30.65	Granular Cobalt	1.0kg	\$7.15
Granular Boron	25kg	\$19.50	Copper Sulphate	12.5kg	\$19.25
Selcote Ultra Selenium	25kg	\$77.50	Granular Boron	25kg	\$21.35
Calcined Magnesite Granular	40kg	\$11.70	Selcote Ultra	1.5kg	\$4.40
Zinc Sulphate	25kg	\$19.00	Granular Molybdenum	500g	\$8.50
Sulphate of Iron	25kg	\$18.75			

*Dominion Chemicals Ltd:*

Solid Fertilisers:	Unit	Cost
Ammonium Nitrate	25kg	\$32.50
Ammonium Sulphate	25kg	\$20.50
Blood and Bone N7 P7 K0	25kg	\$21.50
Calcium Nitrate	25kg	\$28.00
Diammonium Phosphate Tech	25kg	\$56.25
Gypsum Fine	25kg	\$12.08
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	\$159.25
Boric Acid 99%	25kg	\$43.88
Calcium Chloride 74%	25kg	\$19.25
Cobalt Sulphate	25kg	\$715.00
Copper Hydroxide (slow release copper)	25kg	\$46.55
Copper Sulphate	25kg	\$47.13
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	\$102.50
Shandong 60 mesh (Magnesium Oxide)	tonne	\$510.30
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

## 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	\$14.17
Zinc 14%	20kg	\$249.60

Specialty Products:

Domgib Gibberellic Acid (GA3) - powder	1g	\$1.04
Domgib Gibberellic Acid (GA3) - tablets	per tablet	\$2.80
Potassium Hydroxide	25kg	\$53.95
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 l
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				\$90	\$780
5				Boron 150g/l		\$45		\$160	
				Cobalt Chelate		\$219			
				Copper Chelate	\$40		\$185		
				Manganese Chelate	\$26		\$115		
				Zinc Chelate	\$35		\$160		
				Terraboost				\$85	\$720
				Rapid N					\$590
			14	Super Sulphur				\$85	\$730
14				Qualigrass				\$70	\$550
				Super Seaweed				\$115	\$1,020
				Millennium 3				\$85	\$650

Horticultural Range:	5 litre	10 litre	20 litre	100 litre	200 litre
Amino-N	\$100		\$340		\$3,100
Bactalife	\$115		\$425		\$4,060
Boronplus		\$85		\$790	
Calciphos			\$130		\$950
Calcium			\$50		\$300
Calcium N			\$88		\$775
Calflow		\$45			
Copper F		\$150			
Copper Chelate			\$340		
Crop-Xcel	\$100		\$340		\$3,000
Foliar N			\$55		\$420
Foliar K			\$115		\$1,050
Fosfonate	\$60		\$169		\$1300
Humagrow	\$85		\$300		\$2,900
Magphos			\$180		
Magplus			\$65		\$540
Manganese Chelate	\$58		\$200		
Zinc Chelate	\$35		\$300		
Earlyboost			\$95		\$730
Xtravigour			\$95		\$730
Hiyield			\$95		\$730

*Hatuma Lime Co:*

Phosphate:

N	P	K	S		per tonne
0	4	0	6	No 7 Dicalcic Phosphate	\$133.10
0	4	0	5	No 8 80% Dicalcic Phosphate 20% Cropfine	\$113.30
0	3	0	4	No 9 60% Dicalcic Phosphate 40% Cropfine	\$90.65
0	1.6	0	2.4	No 14 40% Dicalcic Phosphate 60% Cropfine	\$68.05
0	1.6	0	4	No 14s 40% Dicalcic P(inc 10% Sulphur) 60% Cropfine	\$73.15
0	.8	0	1.2	No 19 20% Dicalcic Phosphate 80% AgLime	\$42.60

Sulphur:

				Calsul	\$82.95
0	4	0	10	Dicalcic Phosphate 10% Sulphur	\$148.65

Potash:

0	4	7	5	15% Potassic Dicalcic Phosphate	\$179.95
0	3	15	4	30% Potassic Dicalcic Phosphate	\$223.95
0	2	12	5	Haymix/Dairy Blend	\$211.50

Beef/Dairy and Sheep:

0	3	0	4	No 4 10% Salt	\$136.25
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*Hortlink New Zealand Ltd:*

Meat and Bone	50 kg	\$46.45
Blood and Bone	40kg	\$48.30
Sulphate of Iron	25 kg	\$18.00

Liquid and soluble fertilisers:

N	P	K			
8	3.5	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	9	15	plus trace elements	4 month release	25kg	\$138.50
14	9	15	plus trace elements	6 month release	25kg	\$138.50
14	8	15	plus trace elements	8 month release	25kg	\$138.50
14	8	14	plus trace elements	12/16 month release	25kg	\$138.50
				Nutricote	25kg	141.75

*Livestock Supplies (N.Z.) Ltd:*

**Fertilisers**

Blood – Dried	kg	\$1.20
Blood and Bone	kg	\$1.00
Calcium nitrate	kg	\$1.15
Sodium nitrate	kg	\$1.28
Diammonium phosphate	kg	\$0.65
Gypsum	25 kg bag	\$11.00
Melspray 16.14.13 and trace elements	kg	\$3.88
Melspray 20.9.17.3 and trace elements	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	\$1.50
Sulphate potash soluble/granular	kg	\$1.20/\$0.80
Sulphate of Ammonia (Tek)	kg	\$0.48 (\$1.20)
Sulphur – Prills/Fine Granular	kg	\$0.70/\$0.80
Superphosphate	kg	\$0.26
Urea	kg	\$0.56

**Trace Elements:**

Boron 48	per kg	\$1.08
Boronat/Boronat Forestry Grade	per kg	\$0.90/\$1.05
Cobalt Chelate	per kg	\$80.00
Copper Chelate	per kg	\$16.35
Copper Sulphate Fine/Granula	per kg	\$1.72/\$1.55

EMag Fertiliser	per kg	\$0.54
Flours of Lime	per kg	\$0.20
Iron Mono/Sulphate	per kg	\$1.52/\$1.00
Livestock Supplies 1-year Selenium Chip	per kg	\$1.75
Magnesium Chloride	per kg	\$0.42
Magnesium Phosphate	per kg	\$0.50
Magnesium Sulphate	per kg	\$0.47
Maganese Sulphate, fert grade	per kg	\$1.02
Monensin	per kg	\$18.95
Potassium Carbonate	per kg	\$3.20
Potassium Iodate	per kg	\$44.00
Selcote Ultra Selenium	per kg	\$3.48
Sodium Molybdate	per kg	\$16.95
Sodium Sulphate	per kg	\$1.62
Ultra Selenium and 210g/350g cobalt	per hectare	\$4.00 to \$5.85
Zeolite	per kg	\$0.75
Zinc Chelate Powder	per kg	\$19.05
Zinc Hepto/Mono Granular	per kg	\$1.00/\$1.10
Zinc Oxide/Powder	per kg	\$4.75/\$1.25

*Ravensdown Fertiliser Co-Operative Ltd:*

The following is effective from 1 December 2003 nationally. All prices are ex port store – Nelson, Hornby, Seadown or Ravensbourne. A 1.5% discount can be obtained by direct debiting purchases.

N	P	K	S	Mg		\$ per tonne (bulk)
<b>Phosphate Fertilisers</b>						
0	9	0	11.5	0	Superphosphate	\$158.00
0	20.5	0	1	0	Triple Super	\$471.00
0	6.8	0	8.6	5.5	Serpentine Super / Drilling Super	\$158.00
12.6	15.5	0	15.7	0	DAP 15 S (15% Sulphur)	\$384.00
0	12.7	0	1	0	Reactive Phosphate Rock (Ben Guerir)	\$179.00
0	10.2	0	16.5	0	RPR 17 S (17% Sulphur)	\$189.94
0	10.6	0	10.4	0	RPR/Sulphur Super	\$181.45
<b>Sulphur Fortified Fertilisers</b>						
0	8.6	0	15.4	0	Sulphur Super 15 S	\$166.90
0	8.2	0	19.2	0	Sulphur Super 19 S	\$170.80
0	7.2	0	28.8	0	Sulphur Super Extra 29 S	\$180.55
0	6.1	0	40.4	0	Sulphur Super Extra 40 S	\$192.25
0	5.1	0	50	0	Maxi Sulphur Super 50 S	\$197.00
0	8.2	0	19.2	0	Moly Sulphur Super 19 S (500g)	\$174.74

0	7.2	0	28.8	0	Moly Sulphur Super Extra 29 S (250g)	\$182.52
0	7.2	0	28.8	0	Moly Sulphur Super Extra 29 S (500g)	\$184.49

#### Superphosphate and Trace Elements

0	9	0	11.5	0	Molybdenum Super (500g)	\$166.94
0	9	0	11.5	0	Selenium Super (2kg)	\$168.82
0	8.3	0	10.6	4.2	Magnesium Super	\$173.40
0	0	0	0	52	Magnesium Oxide	\$288.00

#### Potassium Fertilisers

0	8.1	5	10.4	0	10% Potash Super	\$181.10
0	7.7	7.5	9.8	0	15% Potash Super	\$190.15
0	7	7.5	16.3	0	15% Potash Sulphur Super	\$196.78
0	5.8	15	13.4	0	30% Potash Sulphur Super	\$222.76
0	6.3	15	8.1	0	30% Potash Super	\$217.30
0	5.8	7.5	7.3	4.7	15% Potash Serpentine Super	\$190.15
10.1	12.4	10	12.6	0	20% Potash DAP 15 S	\$376.00
0	0	50	0		Potassium Chloride	\$339.00
0	0	42	18	0	Potassium Sulphate	\$562.00
0	5.6	14.7	13.5	0	Lucerne Mix (contains Mo and B)	\$245.63

#### Cropmasters® DAP based

18	20	0	1	0	Cropmaster DAP	\$457.00
12.6	14	15	0.7	0	Cropmaster 13	\$426.60
15.2	10	10	7.7	0	Cropmaster 15	\$395.80
15.5	7	22.5	0.4	0	Cropmaster 16, High K	\$396.50
18.8	8	17.5	0.4	0	Cropmaster 18	\$405.20
19.3	10	0	12.5	0	Cropmaster 20	\$391.00

#### Nitrogen Fertilisers

46	0	0	0	0	Urea	\$395.00
20.5	0	0	24	0	Ammonium Sulphate (Standard)	\$240.00
20.5	0	0	24	0	Ammonium Sulphate (Granular)	\$315.00
6.2	6.3	0	15.3	0	Nitrogen Super (uses std amm sulph)	\$187.60
27	0	0	0	0	Calcium Ammonium Nitrate (CAN)	\$357.00

#### Ammo-Phos™ MAP based

11	22	0	1	0	Ammo-Phos MAP	\$476.00
7.7	15.4	15	0.7	0	Ammo-Phos/Pea Fertiliser	\$439.90

#### Nitrophoska®

12	10	10	0	1.2	Nitrophoska 12-10-10	\$494.00
12	5.2	14.1	6	1.2	Nitrophoska Blue TE	\$490.00
12	5.2	14.1	6	1.2	Nitrophoska Blue Extra	\$600.00

15	2.2	16.6	8	1.2	Nitrophoska Perfekt	\$897 / tonne (25kg bags)
15	4.4	12.5	6	1.2	Nitrophoska Top 15 (slow release)	\$1,462 / tonne (25kg bags)

#### Nitrophoska Custom

10.5	4.6	12.3	7.3	2.6	Nitrophoska Blue TE +Boron +Mag	\$513.58
14.6	6.5	6.5	2.7	2.3	NitroYellow	\$470.56
10	4	14	8	2.5	Olive Tree Mix	\$809.40/tonne (bagged)

#### Horticultural Fertilisers:

N	P	K	S	Mg		\$ per tonne, bulk
0	0	0	23	0	Ferrous Sulphate 19% Fe (25kg)	\$373.00
0	0	0	20	15	Esta Kieserite (Granular)	\$552.00 (bagged)

#### Liquid Fertilisers:

Clear N.P.K. – suitable for horticultural and pastoral use

N	P	K	S	Mg		
16	5.5	12	0.3	.09	High NK +TE +Kelpak 2.5% 20l/200l	\$66.00/\$570.00
12	6	8	0.3	.01	Foliar 12.6.8 +TE +Kelpak 2.5% 20l/200l	\$69.00/\$600.00
9	4	6	0	0	Balance Foliar +TE 20l / 200l	\$53.60/\$484.30
14	12	3	0.3	0	High NP +TE 20l / 200l	\$90.70/\$810.70
10	13	25	0	0	Guard PK 20l / 200l	\$150.00/\$1,300
0	10	20	0	0	PK 400 20l / 200l	\$165.00/\$1,430
13	20	0	0	0	PolyPhos +TE 20l / 200l	\$94.40/\$851.50
0	15	0	0	0	Premium 20l	\$145.10
6	10	3	1	0.1	Supa Stand Phos +Kelpak 10% 25l	\$181.30

#### Macro Elements

0	0	0	0	0	Pitstop 17% Ca 20l / 200l	\$50.00/\$400.00
16	0	0	0	2	Grocal 17% Ca +TE 20l / 200l	\$92.50/\$800.00
0	0	0	0	30	MagFlo 20l	\$87.60
0	0	30	0	0	SupaK30 +TE +Kelpak 2.5% 20l / 200l	\$130.70/\$1174.20
11	0	0	25	0	Supa S 20l	\$100.50
32	0	0	0	0	Supa N32 20l / 200l	\$46.10/\$413.30
0	0	0	0	5	Supa Mag chelate 5l / 20l / 200l	\$26.40/\$93.70/\$850.80
0	0	0	0	30	DairyMag 20l	\$44.10

#### Trace Elements

0	11	0	0	0	Supa Moly 25%Moly 1l / 5l	\$30.00/\$135.00
4.1	0	0	0	0	Supa Bor 10%Bor 5l / 20l	\$37.00/\$130.00
0	0	0	0	0	Zinc 75 (ZnO) 75%Zn 5l / 10l	\$106.50/\$193.40
					Supatrace 10 N,Fe,Zn,Mn,Cu,B,Mo,S 5l	\$23.40
14	0	0	6.5	0	Nitro Iron 27 13%Fe 20l	\$87.60
0	0	0	0	0	Supa Zinc chelate 7.5%Zn 5l / 20l	\$46.10/\$167.00

0	0	0	0	0	Supa Mang chelate 6%Mn 5l / 20l	\$46.10/\$164.70
0	0	0	0	0	Supa Copper chelate 6%Cu 5l / 20l	\$52.90/\$189.70

### Organic Conditioners

Kelpak	Liquid seaweed conc	5l / 25l	\$70.80/\$312.10
Supa Humus	12% Humic acid as Potassium Humates	25l / 200l	\$94.40/\$680.00

### Fertigation Products: Chelated trace elements and 3% Humic Acid

N	P	K	S	Mg		Price
30	10	0	2.8	0.2	Gro-Flow 40H +TE 20l	\$77.80
5	10	27	0	0	Gro-Flow 42H +TE 20l	\$88.40
16	17	12	0	0	Gro-Flow 45H +TE 20l	\$104.30

### Adjuvants / Surfactants

Swift	Estified canola oil penetrant	5l / 20l	\$49.90/\$176.80
Agri wett 77	General purpose – non-ionic wetting agent	5l / 20l	\$29.50/\$106.50
Supa Stik Oil	General purpose sticking agent	5l / 20l	\$42.30/\$152.60
Organo Oil	BIO-GRO certified canola oil sticker	10l	\$111.10

### Specialist Organic Products

N	P	K	S	Mg	Ca		Price per tonne
0	12.7	0	0	0	33	BIO-GRO RPR	\$189.00
0	0	0	20	15	0	BIO-GRO Esta Kieserite Granular	\$562 (bagged)
0	0	25	17	6	0	BIO-GRO Patentkali Granular	\$676 (bagged)

### Restricted Organic Products

0	0	0	0	52	0	Organic Magnesium Oxide	\$298.00
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Animal Health (BIO-GRO certified except *)	Price per tonne
Magnesium Chloride – white flake* (12% Mg)	\$350.00 bagged
Magnesium Chloride natural – unbleached (12% Mg)	\$285.00 bagged
Magnesium Chloride Prills – unbleached (12% Mg)	\$332.00 bagged
Calcined Magnesite – 200 mesh dusting MgO (54%Mg)	\$362.00 bagged
Magnesium Sulphate – epsom salts (10%Mg)	\$514.00 bagged
DairyMag 20 litre * (30%Mg)	\$44.10
Lime Flour (39% Mg)	\$190.00 bagged
Salt – sodium chloride, grade 22 (39%Na)	\$285.00 bagged
Maize Triple Mix (9.5%Mg, 20% Ca, 8% Na)	\$333.00 bagged
Zinc Sulphate Heptahydrate* (23% Zn)	\$577.00 bagged

Animal Health Trace Elements	Std application rate per ha	Mixing rate kg/t assuming 250 kg/ha spread rate	Price per kg
Copper Sulphate (25% Cu)	6.25kg per ha	25	\$1.41
Cobalt Sulphate (21% Co)	refer field officer		\$9.27
Selenium Ultra (2 yr) (1% Se)	0.5kg/ha sheep /beef, 1kg/ha dairy	2 sheep/beef, 4 dairy	\$3.07

### Other Trace Elements

Zinc Sulphate (Hepta) 23% Zn	refer field officer		\$0.58
Zinc Sulphate (Mono) 35% Zn	refer field officer		\$0.79
Sodium Molybdate 40% Mo	refer field officer		\$8.03
Borate 46 Granular 15% B	6.25kg per ha	25	\$1.23
Ulexite BIO-Gro cert. 10% B	10kg/ha	40	\$0.96
Ferrous Sulphate 19% Fe	refer field officer		\$0.37
Manganese Sulphate 32%Mn	refer field officer		\$0.69

### Rural Research Limited:

Liquid Fertilisers – Nitrosol Liquid Blood and Bone fertiliser.

N	P	K	S	Name	Quantity	North Island	South Island
8	3	6	2	Nitrosol Original	5 litre	\$42.00	\$42.00
8	3	6	2		20 litre	\$120.00	\$120.00
8	3	6	2		60 litre	\$312.00	\$312.00
8	3	6	2		200 litre	\$730.00	\$810.00
8	3	6	2	Nitrosol Oceanic	5 litre	\$43.20	\$43.20
8	3	6	2		20 litre	\$123.00	\$123.00
8	3	6	2		60 litre	\$318.00	\$318.00
8	3	6	2		200 litre	\$760.00	\$830.00
8	3	6	2	Nitrosol Organic	5 litre	\$46.20	\$46.20
8	3	6	2		20 litre	\$133.00	\$133.00
8	3	6	2		60 litre	\$336.00	\$336.00
8	3	6	2		200 litre	\$790.00	\$870.00

### Bell-Booth Ltd:

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
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		
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
Supacrop Sprayable Trace Elements		
Sprayable Boron	5/20 litre	\$45.50/\$158.00
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	3/5/20 litre	\$14.50/\$95.00/\$857.00
Sprayable Zinc	5/20/200 litre	\$26.50/\$70/\$570
Soluble Sulphur	20/200 litre	\$104/\$880

### 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/Cropfine Lime	\$16.50/\$20.00

### *McDonald's Lime Ltd: (Otorohanga)*

	\$ per tonne
Agricultural Lime - bulk	\$17.00
- 1 tonne bulk bags	\$70.00
- 25kg bags	\$80.00
Calcimate® - 25 kg bags	\$120.00
Hydrated Lime - 20 kg bags	\$241.00

### *Parkside Quarries Ltd: (Oamaru)*

Agricultural Lime - bulk price, ex-works Weston	\$16.50 per tonne
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### *Ravensdown Lime: (Note: Store prices vary, and a 1.5% discount applies for direct debit)*

	\$ per tonne
Ravensdown AgLime ex lime works – South Island	
Neutralising Value 97% ex Ngarua, Takaka	\$21.00
Neutralising Value 90% ex White Rock, Rangiora	\$20.00
Neutralising Value 80% ex Geraldine	\$17.00
Neutralising Value 90% ex Clarence Valley	\$21.00
Neutralising Value 80% ex Balfour, Southland	\$20.50
Neutralising Value 83% ex Dipton, Southland	\$20.00
Neutralising Value 85% ex Westport Lime	\$21.00
Lower North Island	
Neutralising Value 90% ex Te Kuiti	\$17.00
Neutralising Value 90% ex Browns, Dannevirke	\$16.50
Neutralising Value 90% ex Websters, Havelock North	\$15.00
Upper North Island	
Neutralising Value 68% ex Greenleaf, Dargaville	\$11.50

*Livestock Supplies:*

Standard Lime/Lime Calcimate	per kg	\$0.06/\$0.20
Lime – Burnt	25 kg	\$12.50
Lime – Hydrated	per bag	\$14.50

*Dominion Chemicals:*

Agricultural Lime	25kg	\$3.75
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*Rural Research Ltd:*

PhloLime – rapid action fine lime suspension	North Island	South Island
PhloLime 20 litres	\$90.00	\$96.00
PhloLime 125 litres	\$290.00	\$350.00

*Hortlink New Zealand Ltd:*

Dolomite Lime	25 kg	\$10.00
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### 2.6.3 Dolomite

*Golden Bay Dolomite (produced by Omya NZ Ltd) and is marketed exclusively by Ravensdown Fertiliser Co-op Ltd.*

**South Island**

ex Golden Bay	\$42.00 per tonne
ex Nelson	\$67.30 per tonne
ex Hornby	\$82.36 per tonne
ex Seadown	\$93.85 per tonne

**North Island**

ex New Plymouth	\$96.50 per tonne
ex Papakura	\$96.00 per tonne
ex Napier	\$118.50 per tonne
ex Wanganui (Ocean Terminals)	\$96.50 per tonne

*Dominion Chemicals:*

Dolomite	25kg	\$12.00
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*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 / BOP)

Pasture application by truck			Orchard application	
kg/ha	(cwt/acre)	Price per tonne	Kg/ha	Price per tonne
200	(1.5)	\$30.00	100	\$95.00
300	(2.4)	\$27.00	200	\$80.00
400	(3.2)	\$26.00	300	\$70.00
500	(4.0)	\$25.00	400	\$62.00
600	(4.8)	\$24.00	500	\$55.00
700	(5.6)	\$23.00	600	\$49.00
800	(6.4)	\$22.00	700	\$44.00
900	(7.2)	\$21.00	800	\$40.00
1000	(8.0)	\$20.00	900	\$37.00
1250	(9.6)	\$13.00	1000	\$35.00
2500	(19.9)	\$11.00	1250	\$35.00
Rates of application lower than 200 kg/ha are costed on a per ha cost (area charge) or \$8.25 per ha per tonne.			1500	\$33.00
			2000	\$27.50
			2500	\$22.00
			3000	\$20.00

**Note:** For orchard applications there is a minimum charge for loads less than one tonne, of \$130.

### Canterbury

*Boag Brothers Contracting*, Rakaia charges \$10 per hectare carted and spread.

Another contractor in Canterbury (*Spreadmark* certified) charges \$13 per hectare for the fertiliser to be spread. Cartage on top of this is \$16.50 per tonne or a minimum charge of \$88 per load. A third contractor charges \$4.50 per hectare for spreading, \$16.50 per tonne for cartage ex Christchurch factory, with a minimum spreading charge of \$65.

### 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 and Southland

Superphosphate	\$45 to \$70 per tonne
Lime	\$25 to \$40 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**

Superphosphate

from \$43 per tonne

Lime

from \$35 per tonne

**Wairarapa**

Superphosphate

\$45 to \$48 per tonne

Lime

\$35 to \$38 per tonne

**Helicopter Work:**

Helicopter spreading depends on the application rate, block size and positioning distance.

Auckland

\$180 to \$200 per tonne

\$1200 per hour for Jet Ranger or Hughes 500D/E

\$1650 per hour for Squirrel

Hawkes Bay

\$1,265 per hour

Bay of Plenty

from \$1,200 per hour

Tasman

from \$1,475 per hour for Squirrel

\$132 per tonne (positioning extra)

\$24 to \$88 per ha (positioning extra)

Canterbury

\$120 to \$300 per tonne

**2.6.5 Testing of Soil, Water, Plant and Feeds***Livestock Supplies (NZ) Ltd.*

AgConsult

Basic soil –	Cobalt	\$25	
	Mo	\$25	
	Basic	\$115	
			Total \$165 per test.
Basic, Co, Mo, total P and S			\$195 per test.
D.D.T. Indicator			\$130 per test.
A.O.B Test			\$75 per test.

*R.J.Hill Laboratories Ltd.***Recommended Profiles:**

Pasture	Basic Soil plus Sulphate-S	\$47.00
Maize	Basic Soil plus Sulphate-S, Available N	\$58.00
Arable crops	Basic Soil plus Sulphate-S, Available N	\$58.00
Avocados	Basic Soil plus Mehlich 3	\$53.00
Vegetables	Basic Soil	\$36.00
All others	Basic Soil	\$36.00

**Soil Samples:**

		Price
Basic soil test	pH, P, K, Ca, Mg, Na, CEC, Base saturation, Volume weight	\$36.00

Additional soil tests*	Mehlich 3 extended: P,Mn,Zn,Cu,Co,Fe,B,Al,Ca,Mg,Na,K	\$25.00
	Mehlich 3: P,Mn,Zn,Cu,Co,Fe,B,Al	\$17.00
	Sulphate-S, soluble salts, organic matter, available-N, reserve-Mg, Al, B	\$11 each
	Chloride, Resin P, Total-N	\$15 each
	Organic-S (Sulphate-S required), plus Anion storage capacity, P retention	\$13 each
	Reserve P	\$18.00
	Trace elements profile (Mn, Zn, Cu, Co)	\$20.00
	Total P, Total Mo, Total Se	\$20 each

### Leaf Tissue/Pasture Samples:

#### Recommended Profiles:

Extended Pasture Feed Profile	Mixed Pasture plus Pasture Feed	\$129.00
Spring Pasture Profile	Mixed Pasture plus Chloride plus ME plus CP	\$98.00
Mixed Pasture	Basic Plant plus Mo, Co, Se	\$87.00
Clover Only	Basic Plant plus Mo	\$67.00
Complete Pasture Profile	One Mixed Pasture + ME + CP + one Clover Only	\$128.00

Basic Plant Test	N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B	\$57.00
Pasture Feed	Dry Matter, Crude protein (CP), Acid Detergent Fibre, Neutral Detergent Fibre, Soluble Sugars, Metabolisable Energy (ME), Digestibility	\$60.00

Selenium Only		\$28.00
Additional Plant Tests*	Mo, Co, Se	\$10 each
	Cl, Sulphate-S, NO <sub>3</sub> -N	\$11 each
	Iodine	\$17

#### Other

#### Recommended Profiles:

Kiwifruit	Basic Plant plus Chloride	\$68.00
Avocado	Basic Plant plus Chloride	\$68.00
Brassica	Basic Plant plus Molybdenum	\$67.00

### Petiole Samples.

#### Recommended Profiles:

Potato	Nitrate-N, Phosphorus, Potassium, Magnesium	\$36.00
Grape	Basic Plant plus Nitrate-N (petiole only)	\$68.00
Grape	Combined Grape Profile (petiole + blade)	\$80.00
Petiole = N, NO <sub>3</sub> -N, P, K, Mg.    Blade = P, K, S, Ca, Na, Fe, Mn, Zn, Cu, B.		

### Fruit Samples.

#### Recommended Profiles:

Early Season Whole Fruitlet	N, P, S, Ca, K, Mg, Na, Fe, Mn, Zn, Cu, B, Mean Weight, Dry Matter	\$75.00
Whole Fruit	N, P, S, Ca, K, Mg, Na, Fe, Mn, Zn, Cu, B	\$75.00
Additional Fruit Tests* Dry Matter		\$19.00
<b>Nutrient Solution Samples:</b>		
Basic NFT Profile	pH, CF, Nitrate-N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B, Cl,	\$40
Additional NFT Tests*	Ammonium-N	\$11.00
	Silicate	\$18.00
	MO	\$10.00

**Growing Media Samples:**

Basic Potting Media Profile	pH, conductivity, Nitrate-N, Ammonium-N, P, K, Ca, Mg, Na	\$40
Trace Elements	Fe, Mn, Zn, Cu, B	\$30
Nitrogen Draw-down Index		\$70

**Feedstuff Samples.**

Recommended Profiles:

Pasture Silage	pH, Dry Matter, Crude Protein, Acid Detergent Fibre, Neutral Detergent Fibre, Metabolisable Energy, Digestibility, Ammonium-N, Ammonium-N/Total N	\$70.00
Other Silages	Basic Feed plus pH	\$78.00
All Others	Basic Feed Only	\$67.00
Basic Feed Test	Dry Matter, Protein, Fibre, Ash, Digestibility (estimated), Metabolisable Energy (estimated)	\$67
Dry Matter Only		\$19.00
Additional Feedstuff Tests*	pH, Ammonium-N/Total N ratio	\$11 each

\* For additional tests, the prices quoted only apply when tests are requested in addition to a Basic Profile. If single elements are requested then additional fees will apply.

**Water Analysis:**

Drinking, Stock and Irrigation	Routine water assessment – pH, Conductivity, Total Dissolved Salts, alkalinity, CO <sub>2</sub> , Ca, Mg, hardness, Na, K, Cl, Sulphate, NO <sub>3</sub> -N, B, Fe, Mn, Zn, Cu	\$90
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*Analytical Research Laboratories:*

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Basic soil test: pH, Olsen, P, Ca, K, Mg, Na, Bulk density, CEC, & % base saturation	\$35.00
Std soil test: Basic soil test plus Sulphate Sulphur	\$45.00
Std soil test + EOS: Basic soil test plus Sulphate and Organic Sulphur	\$60.00
Basic Plant Analysis: N, P, K, S, Mg, Ca, Na, Fe, Cu, Zn, Mn, B	\$55.00
Std Pasture Analysis: Basic Plant Analysis plus Co, Se, Mo	\$85.00
Clover Analysis: Basic Plant Analysis plus Mo	\$65.00
Comprehensive Pasture Analysis: Std Pasture Analysis + Clover Analysis	\$120.00
Feed Quality Analysis	\$65.00
Drinking water analysis: pH, conductivity, alkalinity, Fe, Mn, Ca, Mg, K, Na, Cu, Zn, B, Cl, Carbon Dioxide, hardness, Bicarbonate, total dissolved solids, Nitrate N, Ammoniacal N	\$95.00
Analysis for discharge to receiving waters: Nitrite/Nitrate N, Ammoniacal N, total N, BOD, settleable solids, suspended solids, total solids and turbidity	\$114.00
Effluent for Discharge to Land – dairy shed effluent: Total N, P, K, Mg, Ca and Na	\$54.50

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## 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.

General Freight:

Estimated 2003 rates (\$ per tonne unless otherwise stated):

(km)	10	30	40	50	60	70	80
<b>General Goods:</b>	\$19.00	\$31.00	\$36.00	\$41.00	\$45.00	\$49.00	\$52.00
Bagged lime/fertiliser	\$24.00	\$30.00	\$33.00	\$35.00	\$38.00	\$40.00	\$44.00
Bulk Lime	\$7.00	\$11.00	\$12.75	\$14.50	\$16.00	\$17.60	\$19.00
Bulk Fertiliser	\$10.70	\$18.50	\$22.20	\$25.70	\$29.00	\$32.00	\$35.00
Wool (per bale)	\$3.74	\$5.71	\$6.63	\$7.61	\$8.47	\$9.26	\$9.78
Bulk Grain	\$11.00	\$18.00	\$21.00	\$24.00	\$26.00	\$28.00	\$30.50
Metal	\$12.00	\$24.00	\$29.00	\$34.00	\$39.00	\$45.00	\$50.00

**Small Goods Rates:**

Weight	up to 16km	17 to 32km	33 to 48km	49 to 64km	over 64km
Up to 32 kg	\$10.00	\$10.00	\$12.00	\$12.00	\$13.00
102 kg	\$11.00	\$12.00	\$13.00	\$15.00	\$16.00
508 kg	\$19.00	\$21.00	\$24.00	\$30.00	\$35.00
965 kg	\$24.00	\$30.00	\$33.00	\$45.00	\$53.00

**Stock:** (dollars per head)

(km)	10	30	50	70	100	130	160
Store lambs	-	-	-	-	\$0.95	\$1.09	\$1.24
Prime lambs	\$0.71	\$0.91	\$1.21	\$1.45	\$1.78	\$2.03	\$2.27
Hoggets	\$0.62	\$0.59	\$1.19	\$1.47	\$1.76	\$1.95	\$2.23
Store sheep	-	\$0.80	\$1.00	\$1.20	\$1.43	\$1.71	\$2.00
Fat sheep	\$0.92	\$1.19	\$1.59	\$1.91	\$2.35	\$2.70	\$3.02
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	\$9.26	\$11.87	\$15.92	\$19.00	\$23.62	\$27.50	\$30.00
Deer	-	-	\$5.15	\$6.07	\$7.25	\$8.39	\$9.53

A limited discount on the above prices could be expected for large lines.

## 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:*

		Minimum charge	Per extra kg
Airport to Airport	Maintrunk	- \$75 for first 2 kg	\$8.00
	Provincial	- \$95 for first 2 kg	\$9.00
Door-Door/Door-Airport/Airport-Door	Main trunk	-\$88 for first 2 kg	\$8.00
	Provincial	-\$109 for first 2 kg	\$9.00

EZ Product and Services.

"Pay as you go" service. Tickets can be obtained in advance in batches of 20.

A local across town service is available with 5 delivery cycles daily. \$3.75 per ticket and weight limit of 25kg. These tickets are available in batches of 50.

Overnight Express ex Christchurch	Code	Price per ticket	Weight limit
Shorthaul *	U1	\$5.25	15kg
Shorthaul excess	Y1	\$4.00	15kg
Within island**	U2	\$7.80	5kg
Within island excess	Y2	\$5.00	5kg
Within island 10kg	U3	\$12.00	10kg
Between island***	U4	\$15.25	5kg
Between island excess	Y4	\$12.00	5kg
Overnight priority parcel N/W 3kg	F4	\$8.00	3kg
Overnight priority parcel within island 3kg	F1	\$6.00	3kg

\*Shorthaul: north to Kaikoura, south to Timaru and over to the West Coast.

\*\*Within Island: Covers the rest of the South Island.

<b>48 Hour ex Christchurch</b>	<b>Code</b>	<b>Price per ticket</b>	<b>Weight limit</b>
Between Island	U8	\$8.50	5kg
Between Island excess	Y9	\$6.00	5kg
Between Island 10kg	U9	\$13.50	10kg

*Air New Zealand:*

International Rates quoted ex Christchurch 1 and Auckland 2

Destination	Foodstuffs per kg					Flowers/bulbs/seeds	
	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 Angeles1	\$18.31	\$4.56	-	-	\$4.03	\$4.17	(250kg)
Los Angeles2	\$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

#### Ryegrass

		Bare	Prillcote	Super Strike	Gaicho	Ultra Strike
<b>Price per kg</b>						
Archie		\$4.05	-	-	-	-
Aries HD		\$5.90	-	\$8.25	\$9.70	-
Aries HD AR1		\$7.12	-	\$9.72	\$11.40	-
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	-
Exalta		\$3.65	-	\$6.00	\$7.50	-
Extreme		\$7.12		\$9.72	\$11.40	
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-	1st Generation	\$1.80	-	-	-	-
	Uncertified	\$1.50	-	-	-	-
Nevis		\$5.80	-	\$8.20	\$9.65	-
Nui	1st Generation		\$1.60	-	-	-
	Zero Nui	\$2.65	-	-	-	-
	Super	\$2.80	-	-	-	-
Quartet AR1		\$7.12	-	\$9.72	\$11.40	-
Quartet HE / LE		\$5.90		\$8.25	\$9.70	
Ruanui	1st Generation	\$1.80	-	-	-	-

Samson	High	\$5.10	-	-	-	-
	Endophyte					
	Low	\$4.75	-	-	-	-
	Endophyte					
	AR1	\$6.35	-	-	-	-
	Endophyte					
Sterling LE		\$5.20	-	-	-	-
Supreme Plus HE		\$4.15	-	-	-	-
Supreme Plus LE		\$4.15	-	-	-	-
Supreme Plus AR1		\$5.45	-	-	-	-
Tabu		\$5.00	-	-	-	-
Tama	1st Generation	\$1.60	-	-	-	-
Tolosa		\$6.90	-	-	-	-
Vedette		\$5.70	-	\$8.10	\$9.55	-
Vedette AR1		\$6.50	-	-	-	-
Yatsyn		\$5.40	-	\$7.75	\$9.15	-
<b>White Clovers</b>						
Aran		\$15.00	-	\$12.80	-	-
Bounty		-	-	\$11.30	-	-
Challenge		-	-	\$11.30	-	-
Demand		-	\$8.35	\$9.80	-	-
Kopu II		-	\$13.30	-	-	-
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		\$7.75	\$9.80	-	-	-
Tribute		\$10.40		\$9.15	-	-
<b>Red Clovers</b>						
Colenso		-	-	\$9.80	-	-
G 27		-	\$11.45	\$9.85	-	-
Pac 19		\$9.35	\$8.45	-	-	-
Pawera	1st Generation	\$10.00	-	-	-	-
Sensation		\$9.70	\$9.10	\$7.60	-	-
<b>Subterranean Clovers</b>						
Goulburn		\$6.30	-	-	-	-
Leura		\$6.45	\$8.30	-	-	-
<b>Caucasian Clovers</b>						
Endura/Kura		-	\$19.95	-	-	-

**Annual Clovers**

Bolta Balansa	-	\$7.95	-	-	-
Lightening Persian	-	\$7.95	-	-	-

**Strawberry Clovers**

Onward	\$9.45	\$8.70	-	-	-
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**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	-	-
Dovey	\$9.00	-	\$11.50	-	-
Vulcan	-	-	\$11.05	-	-
Quantum	-	-	\$10.95	-	-

**Other**

Matua Prairie Grass (Easy drill)	\$3.65	-	-	-	-
Gala Brome	\$4.75	-	\$7.25	\$8.60	-
Pasture Brome	\$3.90	-	-	-	-
Bareno					
Maku Lotus	\$20.00	\$16.10	-	-	-
Sunrise Lotus	\$20.00	-	-	-	-
Maru Phalaris	\$9.75	-	-	-	-
Massey Basyn	\$11.95	\$7.35	-	-	-
Melita Yorkshire	\$8.00	-	-	-	-
Fog					
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	-	-

**Power Pak Mixes**

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	-
<b>Lucerne</b>					
Kaituna	-	-	\$16.30	-	-
Otaio	\$13.95	\$14.25	-	-	-
Torlesse	\$15.15	\$15.35	-	-	-
Wairau	\$8.75	-	-	-	-
<b>Kales</b>					
Goliath	-	-	\$15.00	\$22.80	\$22.20
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
<b>Rapes</b>					
Bonar	-	-	\$13.10	\$26.20	\$20.60
Emerald Giant	\$4.85	-	\$12.65	\$20.65	\$19.45
Maxima Plus	-	-	\$14.10	\$24.00	\$21.70
Rangi	\$2.93	-	\$13.47	-	-
Wairangi	\$4.60	-	\$12.40	\$19.90	\$19.00
<b>Forage Brassica</b>					
Pasja	-	-	\$14.95	\$24.00	\$24.80
Wairoa	\$6.35	-	\$12.85	\$21.65	\$20.70
<b>Swedes</b>					
Doon Major	\$10.53	-	\$21.96	-	\$26.76
Dominion	-	-	\$19.38	-	-
Highlander	-	-	\$18.15	\$23.65	\$24.00
Major Plus	-	-	\$19.40	\$24.50	\$23.70
Winton	-	-	\$23.95	\$31.30	\$30.70
<b>Turnips</b>					
Appin	\$8.00	-	\$17.75	\$23.25	\$22.25
Barkant	-	-	\$22.20	\$27.45	\$26.50
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

*Wrightson Seed Ltd:*

Hokonui Forage Oats		\$1059.55 per tonne
Stampede Forage Oats		\$782.20 per tonne
Doubletake Multigraze Triticale treated	- Raxil treated	\$1017.80 per tonne
	- bare	\$1117.30 per tonne
Rocket Triticale	- Raxil treated	\$888.90 per tonne
	- bare	\$888.90 per tonne
Hattrick Greenfeed Oats		\$1.20 per kg
Massif Oats		\$1.06 per kg

### Peas

Magnus (silage) 2002 price	\$750.00
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### Maize

Pioneer Hybrid Maize – per 80,000 viable kernals	\$245.33 to \$280.22
Forage King Greenfeed Maize 25kg	\$96.04
Corson Greenfeed Maize 10 kg	\$44.00

## 2.8.3 Turf Grasses

	Bare	Superstrike
Ryegrass:		
Galahad	\$8.58	\$11.69
Joust	-	\$7.29
Tambour	\$6.09	\$9.24
Fescue Turf :		
Red	-	\$13.96
Chewings	\$10.27	\$13.42
Browntop:		
Egmont	\$19.38	\$22.49
Milford	\$17.02	\$16.40

## 2.8.4 Seeds - Arable

		Price per tonne
Cereals:	Precleaned White Oats	\$550.00
	Black Oats	\$600.00
	Monad Wheat (milling)	\$910.00
	Sapphire Wheat (milling)	\$870.00
	Commando Wheat	\$700.00
	Otane Wheat	\$790.00
	Regatta Barley	\$850-\$900
	Fleet Barley	-
	Ryecorn uncertified	\$700.00
	Peas:	Marrowfat
White		\$700.00
Blue		\$680.00
Maple (Whero)		\$750.00
Prussian		\$680.00

## 2.8.5 Seeds - Process Crops

Peas	230 kg/ha	\$1.73 per kg
	265 kg/ha	\$1.50 per kg
	295 kg/ha	\$1.36 per kg
	325 kg/ha	\$1.18 per kg
Broad Beans		\$1.92 per kg
Beans		\$6.98 per kg
Dicing Carrots		\$750 per kg

## 2.8.6 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:*

	Seed/Coat ratio	\$ per kg (coated weight)
Prillcote		
Ryegrass	1:1	\$1.50
Cocksfoot	1:1	\$1.65
Clovers	1:0.75	\$1.90
Lotus	1:0.75	\$1.95

## Seed Insecticide Treatment for Maize

Gaicho	per 80,000 kernels	\$92.00
Poncho	per 80,000 kernels	\$103.27

## 2.8.7 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* and *Terranova Seeds*).

	Standard	Hybrid
Beans - Broad	\$145 per 25 kg	-
- Dwarf	\$230 to \$550 per 25 kg	-
- Butter	\$225 per 25 kg	-
- Runner	\$300 to \$425 per 25 kg	-
Beetroot	\$45 to \$132 per 500 g	\$115 per 50,000s
Broccoli		\$990 to \$1220 per 100,000s
Brussel Sprouts		\$480 to \$940 per 10,000s
Cabbage		\$320 to \$680 per 50,000s
Cabbage - Winter		\$249 per 10,000s
- Savoy	-	\$275 to \$320 per 10,000s
- Red	-	\$132 to \$260 per 10,000s
- Chinese	-	\$100 per 10,000s
Carrot	\$550 to \$1,500 per 10kg	\$360 to \$790 per 500,000s
Carrot Specialist	\$275 to \$675 per 500,000s	-
Cauliflower		\$650 to \$2,300 per 50,000s
Cauliflower - Winter		\$665 per 10,000s
Green Curd		\$515 to \$760 per 10,000s
Celery	\$70 per 100 g	\$140 per 10,000s
Chinese Greens	\$60 per 100g	\$150 per 100g
Chives	\$57 per 100g	-
Coriander	\$16 per 100g	-
Cucumber - Slicer	\$35 per 100g	\$90 per 100g
Cucumber - Mini	-	\$65 per 100s

		Standard	Hybrid
Cucumber	- Telegraph	-	\$755 per 1,000s
Egg Plant		-	\$20 to \$885 per 1,000s
Endive		\$50 per 25g	-
Fennel		\$80 per 2,500s	\$96 per 2,500s
Garlic		\$16.50 per kg	-
Gherkin		-	\$50 per 2,000s
Leek		\$80 per 10,000s	\$240 per 10,000s
Lettuce	- Std Outdoor	\$200 to \$256 per 500g	-
		\$395 to \$435 per 100,000 pills	
	Butterhead	\$145 to \$209 per 5,000 split pills	
	Green/Red Coral	\$165 to \$198 per 5,000 split pills	
	Green/Red Oak	\$165 to \$198 per 5,000 split pills	
	Leaf		
	Salanova Leaf	\$260 per 5,000 split pills	
Melon	Gourmet	-	\$42 to \$59 per 100s
	Honey Dew	-	\$350 per 2,000s
	Rock	-	\$320 to \$540 per 5,000s
	Water	\$72 per 500g	\$210 to \$322 per 100g
Onion	Brown	\$1,050 to \$4,800 per 10kg	
	Red	\$464 per 500g	\$900 per 250,000s
	Bunching	\$570 to \$1170 per 5kg	-
Parsley		\$150 per 500g	-
Parsnip		\$600 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		\$25 per 500 g	\$120 to \$340 per 500 g
Roquet		\$25 per 100g	-
Silver Beet		\$400 to \$530 per 6kg	-
Spinach		-	\$300 to \$420 per 5kg
Squash		\$80 per 500 g	\$188 to \$325 per 500 g
Swede		\$32 per 100 g	\$130 per 500 g
Sweet Corn			\$600 to \$780 per 10kg
Tomato	Determinate	-	\$60 to \$100 per 10g
	Indeterminate		\$40 to \$250 per 1,000s
Turnip		\$22.50 per 500 g	\$460 per 500g
Zucchini		-	\$110 to \$285 per 500 g

### 2.8.8 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
Antirrhinum varieties	\$115 per g, \$53.50 per 1000 seeds
Aster varieties	\$1 to \$9.95 per g
Campanula varieties	\$0.90 to \$85.00 per g
Celosia varieties	\$400 per g, \$140 per 1000 seeds
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
Helianthus (Sunflowers) varieties	\$1.10 to \$2.50 per g \$50.00 to \$60.00 per 1000 seeds
Lisianthus varieties	\$38.00 to \$57.00 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	\$7.00 to \$50.00
Fritillaria	\$50.00
Hyacinths	\$10.00
Snowdrop	\$14.00
Iris varieties	\$2.80 to \$32.00
Leucojum	\$6.00
Narcissus varieties	\$3.20 to \$6.00
Tulip varieties	\$4.00 to 6.50

**Plants for Cut Flowers**

*Green Harvest Pacific Ltd:*

Delphiniums (tissue culture from Holland)	\$5.00
Eryngium Royale PVR	\$3.50
Forsythia PVR	\$4.95
Gypsophila varieties	\$2.90 to \$3.75
Hydrangeas varieties PVR	\$2.50 to \$ 5.50

Static varieties (tissue culture from Japan)	\$2.80 to \$3.95
Viburnum varieties eg trilobium	\$2.00 to \$2.25
Weigelia PVR	\$5.50

*Kauri Creek Nursery Ltd:*

Rose plants in PB 6.5's	\$7.70 ex nursery
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*Allenton Nurseries Ltd:*

(orchardists and trade suppliers only)

Forsythia	\$5.95
Lilac (Syringa) varieties	\$9.75
Viburnum	\$4.50 to \$6.50

## 2.8.9 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	\$8.75
Apricots	\$9.25
Nectarines	\$9.25
Peaches	\$9.25
Plums	\$9.25
Pears	\$8.95
Cherries	\$9.50
Quinces	\$9.25

*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	\$9.50
Feijoa Sellowiana PB 6.5	\$3.50

Prices are nett, bagged F.O.R. Tauranga – minimum order 10 trees. All on Trifoliata rootstock.

*Harrisons Trees:* (Prices are wholesale rates if a minimum of 5 of a variety is purchased)

	Grade	Prices
Apples on MM106	120 to 160 cm	\$9.60
Apples on M26 Dwarf	90 to 120 cm	\$9.60
Apricots	90 to 120 cm	\$9.60
Cherries – compact Stella	120 to 160 cm	\$10.25
Figs	90 to 120 cm	\$6.70
Nectarines	120 to 160 cm	\$9.60
Peaches	120 to 160 cm	\$9.60
Pears on Quince rootstock	90 to 120 cm	\$9.60
Plums	120 to 160 cm	\$9.60
Quinces	120 to 160 cm	\$9.60

*Waimea Nurseries:* (Nelson)

All prices based on commercial orders and may be dependent on grade and numbers.

Discounts apply for larger orders. Prices may not include all royalties.

Feijoa varieties	\$7.50 to \$9.60 each
Fig varieties	\$8.40 each
Apricots, Cherries, Nectarines, Peaches, Plums (contract grown)	up to \$9.90 each
Apples, Nashi, Quinces, Pears (contract grown)	up to maximum \$11.40 each
Persimmon	\$18.90 each

*Tharfield Nursery Ltd* (Katikati):

Banana Mons Mari	\$8.50
Casana	\$5.25
Casimiroa varieties	\$15.00
Feijoa	\$8.25
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 in PB 12's	\$8.90 ex nursery
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### **Nut Trees:**

*Waimea Nurseries:* (Nelson)

All prices based on commercial orders and may be dependent on grade and numbers.

Discounts apply for larger orders. Prices may not include all royalties.

Almond varieties	\$9.90
Hazelnut varieties	\$8.40 to \$10.40
Pine Nut	\$6.40
Walnut varieties	\$24.90

*Allenton Nurseries Ltd:*

(orchardists and trade suppliers only)

Almonds – Burbank/Monovale/Fabrin		\$9.25
Sweet Chestnut (Castanea)		\$9.25 each per 25
Hazelnut (Corylus)		\$9.25 each per 25
Walnut (Juglans regia)		\$5.70 to \$6.50 each per 25
Pine Nuts		\$5.50

*Harrisons Trees:*

Prices are wholesale rates if a minimum of 5 of a variety is purchased.

	Grade	Prices
Almonds	120 to 160 cm	\$9.60
Black Walnut (1yr seedlings)	60 to 90 cm	\$2.36 (minimum 10)
Chestnuts (budded)	160 to 200 cm	\$13.45
Hazelnuts (from layers)	60 to 90 cm	\$6.10
Hazelnuts (pollinators grafted)	40 to 60 cm	\$9.80
Walnuts from seed	120 to 160 cm	\$8.60
Walnuts grafted	40 to 60 cm	\$20.30

*Tharfield Nursery Ltd: (Katikati)*

Pine Nut		\$7.95
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**Olives:**

*Allenton Nurseries Ltd: (orchardists and trade suppliers only)*

Olive Allenton		\$6.50
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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

*Waimea Nurseries: (Nelson)*

All prices based on commercial orders and may be dependent on grade and numbers.

Discounts apply for larger orders. Prices may not include all royalties.

Olive varieties		\$7.40 each
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*Tharfield Nursery Ltd: (Katikati)*

Frantoio, J2, J5, Koroneiki, Manzanillo, Picual varieties		\$6.95
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**Vines:***Waimea Nurseries:* (Nelson)

Baby Kiwifruit – commercial selections	\$6.90 each
Table Grapes	\$6.40 each

*Tharfield Nursery Ltd:* (Katikati)

Grape Albany Surprise	\$5.95
Passiflora - ligularis, quadrangularis	\$2.75
Tamarillo varieties	\$4.25

*Harrisons Trees:*

Grapes – on own rootstock	60 to 90 cm	\$5.10
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**Berryfruit:***Waimea Nurseries:* (Nelson)

All prices based on commercial orders and may be dependent on grade and numbers.  
Discounts apply for larger orders. Prices may not include all royalties.

Cranberry/Currant	\$6.40 each
Mulberry	\$14.90 each
Blueberries	\$8.40 each

*Tharfield Nursery Ltd:* (Katikati)

	Variety	Price
Blackberry	Black Satin	\$3.75
Blackcurrant	Magnus	\$5.95
Blueberry	Blue Dawn, Blue Magic	\$6.95
Boysenberry		\$3.75
Cape Gooseberry		\$5.25
Cranberry	Bergman, Crowley	\$5.95
Hybridberry		\$3.75
Loganberry	Waimate	\$3.75
Raspberry	Selwyn	\$3.75

*Harrisons Trees:*

Prices are wholesale rates if a minimum of 5 of a variety is purchased.

Currants – red and black	40 to 60 cm	\$4.65
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**2.8.10 Planting/Propagating Expenses**

(See also *Section 2.11.6* for Packaging materials).

*Athco Industries:* (Auckland)

Price per 1000

Standard planters	- 0.5 to 5.0 litre - pack size 700 to 138	\$0.14 to \$0.55
Maxi-planters	- 1.5 litre/1.9 litre - pack size 338/384	\$0.25/\$0.29

SV house plant pots	- 0.2 to 1.3 litre - pack size 2000 to 550	\$0.10 to \$0.33
RP house plant pots	- 0.1 to 1.1 litre - pack size 2600 to 540	\$0.06 to \$0.18
Square 'Spacesaver' pots	- 10 to 15cm - pack size 1150 to 300	\$0.12 to \$0.33
Commercial round pots	- 10 to 20cm - pack size 760 to 120	\$0.16 to \$0.60
Teku lightweight pots	- 8 to 12 cm - pack size 1000	\$55 to \$130
Palm pots	- 1.3 litre	\$0.90
Plant labels	- 125 mm (pack size 2000)	\$350 per 100
Plant label stakes	- pack size 3000	\$5.00 per 100
Orchid tubs	- 8 litre/15 litre - pack size 50	\$1.60 to \$3.00
Large standard planters	- 4 to 30 litre - pack size 20 to 100	\$0.63 to \$5.50
Recycled plastic planters	- 6 to 25 litre - pack size 100 to 25	\$1.75 to \$9.00
Propagation & forestry tubes	- 5.5 cm/7 cm - pack size 1512/1848	\$0.07/\$0.10
Reko bottomless	- 4.2 to 9.0 cm- pack size 960 to 384	\$0.08 to \$0.30
Propagation tubes		
Nursery trays:	- pack size 190 to 25	\$1.06 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	\$0.12
	- Standard 150 x 100 x 50	\$0.12
	- Maxi 10 cm	\$0.19
Flight punnets:	- Half punnet to 12 cavity	\$0.09 to \$0.21
Cell trays	- 5 to 45 ml, 273 to 60 cells	\$5.00 to \$4.50
Planterbags:(per 100)	- PB ¾ to PB 8 - pack size-6000 to 1000	\$3.00 to \$13.50
	- PB 10 to PB 28-pack size-1200 to 500	\$13.00 to \$28.00
	- PB 40 to PB 150 - pack size- 400 to 50	\$36.50 to \$540.00
Easi-Lift planter bags	- 25 litre to 380 litre - pack size 10/5	\$2.20 to \$22.05ea

*Cosio Industries Ltd:*

Planter bags		
PB ¾ 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	\$1135.35
PB10/PB12	price per 1000	\$129.40/\$185.76
PB18/PB28	price per 700	\$211.04/\$256.26

*Transplant Systems Ltd:*

Plantek seedling trays	- 25 to 256 cells per tray	\$7.35 to \$10.00 per tray
Landmark trays 50 -512 plug tray and 84 hexagonal		\$2.90 to \$3.60 each (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 m <sup>2</sup>	\$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/\$42 per 1000

## 2.8.11 Growing Medium

### *Laings Gardenmakers:*

		Price per full scoop
Soil/Soil conditioners:		
Superfine/standard		\$29.95/\$10.95
Lawn topdressing soil mix		\$29.95
Screened garden soil mix		\$19.95
Bark/Fine bark nuggets		\$22.95/\$21.95
Fine bark mulch/screened bark chip		\$14.50
Mill bark mix		\$10.95
Chunky bark (price per large bag)		\$5.95 per bag
Cow manure and sawdust compost		\$16.95
Pig manure and sawdust		\$12.95
Fresh sawdust		\$7.95
Bio-mix soil conditioner		\$22.95

### *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	\$54.80
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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:

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<b>Sheep and Beef</b>	(per su)
Northland	\$1.15
Waikato/Bay of Plenty Intensive	\$1.72
Central North Island Hill Country	\$0.94
Gisborne Large Hill Country	\$0.95
Hawkes Bay/Wairarapa Summer Dry	\$0.64
Hawkes Bay/Wairarapa Summer Moist	\$0.79
Manawatu/Rangatikei Intensive	\$1.09
South Island Merino	\$1.25
Canterbury/Marlborough Hill Country	\$1.01
Canterbury/Marlborough Breeding and Finishing	\$1.72
Otago Dry Hill	\$1.42
Southland/South Otago Hill Country	\$1.38
Southland/South Otago Intensive	\$0.84
National	\$1.05

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*Source: Sheep and Beef Monitoring Report - July 2003*

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<b>Dairy</b>	(per cow)
Northland	\$10
Waikato/Bay of Plenty	\$10
Lower North Island	\$5
Canterbury	\$7
Southland	\$6
National	\$8

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*Source: Dairy Monitoring Report - July 2003*

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<b>Deer</b>	(per su)
North Island	\$0.57
South Island	\$0.43

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*Source: Deer Monitoring Report - July 2003*

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<b>Arable</b>	(per ha)
Canterbury	\$204

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*Source: Arable Monitoring Report - July 2003*

<b>Horticulture</b>	(per ha)
Kiwifruit	\$1,260
Hawkes Bay Pipfruit	\$2,400
Nelson Pipfruit	\$2,430

*Source: Horticulture Monitoring Report - July 2003*

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 that 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	\$159.10
Acheive	Tralkoxydim (40)	CC	4.5 kg	\$418.66
Answer	Metsulphuron (20)	D	20 kg	\$3,000.00
Asulox	Asulam (40)	BY	5 litre	\$176.00

Avadex Xtra	Triallate (40)	N	20 litre	\$440.00
Axall	bromoxynil (7.5), ioxynil (7.5), mecoprop (34.5)	BY	5 litre	\$140.44
Banvel 200	dicamba (20)	O	5 litre	\$140.44
			20 litre	\$532.44
Banvine	2,4-D (20)	DO	1 litre	\$46.22
			5 litre	\$187.55
Basagran	bentazone (48)	B	5 litre	\$205.33
			10 litre	\$408.89
Betanal	phenmedipham (7.9) desmedipham (7.9)	BY	5 litre	\$290.67
Bladex	cyanazine (50)	B	5kg	\$216.89
Buster	glufosinate-ammonium (20)	BY	1 litre	\$48.00
			5 litre	\$169.78
			20 litre	\$550.20
Caragard 500 FW	terbuthylazine (25)	O	5 litre	\$174.22
	terbumeton (25)		20 litre	\$606.22
Centurion Plus	clethodim (24)	N	1/10 litre	\$129.78/ \$1,112.89
Combine	bromoxynil (20), ioxynil (20)	BY	10 litre	\$460.44
Commando	L-flamprop, isopropyl(20)	B	10 litre	\$367.11
Cougar	diflufenican (10), isoproturon (50)	BY	5 litre	\$244.44
Duplosan Super	dichlorprop (60)	B	10 litre	\$150.22
Duplosan KV (MCP)	mecoprop-P (60)	B	10 litre	\$216.89
Escort	metasulfuron (60)	D	40 g	\$54.22
			200 g	\$220.44
Foresite 380	oxadiazon (38)	BY	5 litre	\$431.11
Frontier	dimethanamid (90)	B	10 litre	\$561.78
Fusilade WG	fluazifop-butyl (25)	S	1 kg	\$99.56
			5 kg	\$481.78
Gallant NF	haloxyfop (10)	DO	5 litre	\$494.22
			20 litre	\$1,586.67
Gardoprim 500 FW	terbuthylazine (50)	O	20 litre	\$291.56
Gesagard 500 FW	prometryn (50)	O	5 litre	\$216.89
Gesaprim 500 FW	atrazine (50)	O	5 litre	\$60.00
Gesatop 500FW	simazine (50)	O	5 litre	\$67.11
Glean DF	chlorsulfuron (75)	D	200 g	\$134.29
Glyphosate G360	glyphosate (36)	N	110 litre	\$948.44
Gramoxone 250	paraquat (20)	S	5 litre	\$106.67
Granstar	methylbenzoate complex (75)	D	200 g	\$144.00
Grazon	trichlopyr (60)	DO	20 litre	\$751.11
Harmony	thifensulfuron methyl	D	100 g	\$155.56
Jaguar	diflufenican (2.5),bromoxynil (25)	BY	10 litre	\$403.56

Kerb	propyrazamide (40)	DO	5 litre	\$415.11
Lasso MicroTech	alachlor (48)	MO	10 litre	\$149.33
Lexone Mitribuzin	metribuzin (75)	N	2.5 kg	\$224.89
Linuron 50	linuron (50)	D	2.5 kg	\$112.00
MCPA	MCPA (37.5)	DO	20 litre	\$128.00
MCPB	MCPB (40)	DO	20 litre	\$250.67
Mossoff	benzalkonium chloride (50)	T	1 litre	\$20.00
	copper sulphate (19.7)			
Mostox	dichlorophen (43.2)	BY	5 litre	\$180.44
Nortron 500SC	ethofumesate (50)	BY	5 litre	\$317.33
Pasture - Kleen	2,4-D ethylhexylester (52)	DO	20 litre	\$225.78
Preeglone	diquat (6), paraquat (12)	S	20 litre	\$332.44
Pulsar	bentazone (20) MCPA (20)	B	10 litre	\$101.33
Puma S	fenoxaprop-p-ethyl (6.95)	BY	10 litre	\$1031.11
Pyramin DF	chloridazon (43)	B	1 kg	\$60.89
Radiate	picloram (15) clopyralid (22)	DO	5 litre	\$839.11
Reglone	diquat (20)	S	20 litre	\$451.56
Roundup Renew	36%w/v glyphosate	PM	5 litre	\$144.50
Roundup Renew Extra	glyphosate (49)	M	100 litre	\$1,259.56
Salvo	dicamba (1.7), dichlorprop (23.3)	B	20 litre	\$295.11
	MCPA (10.7), mecoprop (21)			
Sencor 70 DF	metribuzin (70)	BY	2 kg	\$182.22
Stomp xtra	pendimethalin (33)	B	10 litre	\$405.33
Surrender	benalkonium chloride (50)	Y	1 litre	\$35.11
Targa	quizalofop-p-ethyl (50)	B	5 litre	\$311.11
Tigrex	diflufenican (1.2), MCPA (60)	BY	10 litre	\$165.33
Topik 240 EC	clodinafop-propagul (24)	S	1 litre	\$720.00
Topogard 500 FW	terbutryn (35)			
	terbuthylazine (15)	O	5 litre	\$245.33
Tordon Brush-Killer	picloram (10)			
	triclopyr (30)	DO	5 litre	\$363.55
Tordon 2G	picloram (2)	DO	5 kg	\$73.78
Totril Super	ioxynil (25)	BY	10 litre	\$371.56
Tribunil 70WP	methabenzthiazuron (70)	BY	2kg	\$106.67
Tridan 480	trifluralin (48)	BY	20 litre	\$288.89
Trimec	mecoprop (60) MCPA (15)	CC	20 litre	\$351.11
	dicamba (1.8)			
Trophy	acetochlor (84)	DO	20 litre	\$306.67
Triflur 480	trifluralin (40)	N	5 litre	\$96.00
Tropotox Plus	MCPA (2.5), MCPB (37.5)	BY	20 litre	\$241.78
			200 litre	\$2514.67
Trounce	63.5%w/v glyphosate	PM	10.5kg	\$525.85
Versatil	clopyralid (30)	DO	20 litre	\$1,544.89
Velpar DF	hexazinone	D	10 kg	\$929.78

## 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)	O	10 kg	\$153.78
Actellic	Pirimiphos-methyl (50)	O	1 litre	\$85.33
Actellic	Pirimiphos-methyl (50)	S	90 g	\$21.07
SmokeGen				
Antstop G	50g/kg Chlorpyrifos	PM	500g/10kg	\$12.75/\$154.25
Ascend 200SC	Lipronil (20)	BY	1 litre	\$467.56
Basudin 600EW	Diazinon (80)	S	5 litre	\$164.44
Counter 20 G	Terbufos (20)	BY	15 kg	\$291.56
Decis Forte 2.5 EC	deltamethrin (2.75)	BY	1 litre	\$66.67
			5 litre	\$248.00
Demand	2.4%w/v lambda-cyhalothrin	PM	1 litre	\$129.50
Dimilin 25W	diflubenzuron (25)	N	500 g	\$109.33
Dismissal	thiodicarb	W	20 kg	\$149.33
Finitron wasp bait	200g/kg sulfluramid	PM	50g	\$104.84
Folidol M50	parathion-methyl (60)	BY	5 litre	\$194.57
Gesapon 20G	diazinon (20)	BY	22 kg	\$325.33
Icon 10WP	lambda-cyhalothrin (10)	CC	50 g	\$20.80
Karate Zeon	cyhalothrin (5)	S	1 litre	\$578.67
Lorsban 50 EC	chlorpyrifos (40)	DO	5 litre	\$145.78
Mavrik F10	fluvalinate (24)	N	1 litre	\$176.00
Mesurol snail bait	methiocarb	BY	10 kg	\$135.11
Mesurol 75WP	methiocarb (2)	BY	400 g	\$69.33
Monitor	methamidophos (60)	B	10 litre	\$343.11
No Wasps dust	5-8% carbaryl	PM	100g	\$11.00
Perfekthion	dimethoate (50)	B	5 litre	\$132.44
Phorate 20G	phorate (20)	N	15 kg	\$130.67
Pirimor 50	pirimicarb (50)	S	1 kg	\$78.67
Sumi-Alpha	esfenvalerate (5),xylene (74)	N	1 litre	\$88.00
SusCon Green	chlorpyrifos (10)	CC	15 kg	\$346.67
Tamaron 6003L	methamidophos (60)	BY	10 litre	\$265.78
Vydate L	oxamyl (24)	D	3.8 litre	\$206.22

## 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	\$504.89
Aliette	fosetyl-aluminium (80)	BY	1 kg	\$94.22
Aliette Super	fosetyl-aluminium (52.8) thiabendazole (12.9)thiram (17.2)	BY	2.9 kg	\$324.44
Alto	cyproconazole	N	5 litre	\$728.89
Amistar	azoxystrobin (25)	S	5 litre	\$644.44
Amistar WG	azoxystrobin (50)	S	3 kg	\$821.33
Baytan Universal	triadimenol (15)	BY	10 litre	\$1,099.56
Captan 80W	80% captan	PM	2kg	\$74.65
Cereous 250EC	triadimenol (25)	BY	5 litre	\$509.33
Euparen Multi 50WG	dichlofluanid (50)	BY	2 kg	\$80.89
Folicur 430SC	terbuconazole (25)	BY	5 litre	\$696.89
Kocide 2000	cupric hydroxide (50)	D	10 kg	\$163.56
Manzate 200DF	mancozeb (48)	D	10 kg	\$96.00
Monceren 12.5DS	pencycuron (12.5)	BY	20 kg	\$702.22
Monceren IM 13.3D	pencycuron (25) imazalil (6)	BY	20 kg	\$718.22
Monceren IM 270FS	pencycuron (25) imazalil (2)	BY	5 litre	\$553.78
Octave 50W	prochloraz (46.2)	BY	1 kg	\$311.11
Opus	epoxiconazole (12.5)	B	10 litre	\$711.11
Ridomil Gold MZ WG	metalaxyl (8) mancozeb (64)	S	5 kg	\$244.44
Rovral Flo 250	iprodione (25)	BY	5 litre 20 litre	\$281.78 \$960.00
Rovral Gold 750WG	iprodione (75)	BY	1 kg	\$168.00
Rubigan FLO	fenarimol (12)	D	1 litre	\$116.44
Saprene TM	<10% dimethylformamide, 4.5%acephate, 3.9%triforine	PM	1 litre	\$52.30
Scala	pyrimethanil (40)	BY	5 litre	\$412.44
Score 250 EC	difenoconazole (10)	S	5 litre	\$1013.33
Shirlan	fluazinam (50)	CC	5 litre	\$769.78
Sportak 45EC	prochloraz (45)	BY	5 litre	\$295.11
Sumiscler granules	procymidone (10)	CC	16 kg	\$348.44
Sumiscler 500SC	procymidone (25)	N	10 litre	\$1032.00
Tilt 250EC	prop-isoconazole	S	5 litre	\$483.56
Topas 200 EW	penconazole (20)	S	1 litre	\$243.56
Topsin M-4A	thiophanate-methyl (40)	DO	5 litre	\$198.22
Vitaflo 200	carboxin (20) thiram (20)	N	20 litre	\$724.44

## 2.9.6 Algaecides

*Dominion Chemicals:*

Coptrol Algaecide 1 litre \$56.10

## 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	\$68.00/\$80.00
Ferret Paste	PM	450 g	\$18.00
Smoked Salmon Ferret Lure	PM	1kg	\$45.00
Racumin Paste	PM	5 kg	\$41.00
Ditrac Rodent Bait	PM	1.8 kg	\$35.00
Confrac Rodent Bait	PM	1.8 kg	\$35.00
Macadamia Nut Lure	PM	Per unit	\$0.90
Storm Rodent Bait	PM	3kg	\$49.90
Rabbit/Possum/Ferret/Cat Traps	PM	varieties	\$22 to \$195
Electro Zap Trap	PM		\$650.00
Rodent Traps	PM	varieties	\$3.00 to \$25.85
Possum Bait Stations	PM	varieties	\$4.00 to \$11.00
Rabbit Bait Stations	PM		\$35.00
Rodent Bait Stations	PM	varieties	\$0.75 to \$29.60
Larbait	BY	10 kg	\$176.89
Talon Possum Bait	CC	10 kg	\$56.00

## 2.9.8 Bird Repellants

Eaton's 4 The Birds	PM	300 g/4 litres	\$12/\$71
Birdscare Humming Line	PM	30m/500m	\$24/\$68.90
Birdscare Predator Balloons	PM	1 unit	\$13.50
Alphachloralose Wheat	PM	1.5 kg/4 kg	\$25/\$61.75
Alphachloralose Barley	PM	1.5 kg/3 kg	\$29.40/\$49.40
Alphachloralose Peas	PM	1.5 kg/4 kg	\$28.40/\$63.40
Alphachloralose paste	PM	500 g	\$34.00

## 2.9.9 Bactericides

Streptomycin streptomycin (17) K 1.2kg \$115.56

### 2.9.10 Wetting, Spreading and Marking Agents

Contact		FF	5 litre	\$86.00
Sprayfast Rainfast	Spray marker dye	K	5 litre	\$247.11
Landmark		FF	1 litre	\$59.30
Nu Film 17		FF	4 litre	\$150.50
Spraystay		FF	5 litre	\$295.70

### 2.9.11 Penetrants

Pulse (for Roundup herbicide)		N	5 litre	\$160.00
Triton		M	15 litre	\$515.56
Boost		DO	5 litre	\$177.78
			20 litre	\$595.56
Guardall Liquid		Y	200 ml	\$17.56

### 2.9.12 Growth Regulants

Cycocel 750	chlomequat (75)	B	10 litre	\$109.33
Ethrel	chlorthalopach (48)	BY	1 litre	\$87.11
Moddus	trinexapac-ethyl (25)	S	5 litre	692.44
Terpal	mepiquat chloride (30.5)	B	5 litre	\$242.67
	chlorthalopach (15.5)			

### 2.9.13 Oil Sprays

Sunspray 6E	Oils-mineral- insecticidal (97)	B	5 litre	\$47.11
			20 litre	\$128.00

### 2.9.14 Soil Fumigants

Basamid Granules	dazomet (99)	B	20 kg	\$296.89
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### 2.9.15 Root Forming Hormones

*Hortlink New Zealand Ltd:*

Seradix 2 (medium)	beta-indolyl butyric acid		500 grams	\$29.46
Liba 10,000	Gammaindolylbutyric		200 ml	\$24.30
			1 litre	\$89.06
Clonex			500ml	\$71.55

## 2.9.16 Spraying Costs - Aerial and Ground

### (i) Aerial Spraying

Each job is taken on its merits, as there are so many variables to consider. These include distance to and from airstrip, climb to treatment area, size and shape of treatment area (small fiddly blocks cost more), and general terrain such as obstacle avoidance – trees, buildings and hills.

#### Canterbury:

Pasture and crop spraying	\$25 to \$70 per hectare
Brushweed spraying	\$85 to \$295 per hectare
Forestry spraying	\$60 to \$155 per hectare

Note: All spraying prices are dependent on water rate requirement and area to be covered.

#### Tasman:

Brush weed	\$100 per ha
General spraying with Squirrel helicopter	\$1,475 per hour

Note: prices vary according to block size and positioning

#### Southland:

Pasture weeds	\$17 to \$18 per hectare
Gorse	\$250 to \$300 per hectare

#### Auckland:

Pasture weeds	\$17 to \$18 per hectare
Gorse	\$250 to \$300 per hectare

#### Bay of Plenty:

Pasture weeds	from \$18 per hectare
Gorse	from \$270 per hectare

#### Hawkes Bay:

General spraying 65 litres water rate	\$27.50 per hectare
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#### Waikato:

Pasture weed spraying at 30 litres water per ha	\$12 per ha >100ha \$15 per ha <100ha
Pasture weed spraying at 50 litres water per ha	\$23 per ha >100ha \$25 per ha <100ha

### (ii) 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	\$110 per hour

#### Hawkes Bay:

Ground spraying of squash	\$35 per ha
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#### Bay of Plenty:

Boom spraying	\$30 per ha
Gun spraying	\$65 per hour for one person

## 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
Deer	\$5.00	\$2.00

**Lower North Island** sale yards levies are approximately 24 cents per head for sheep (half paid by the purchaser and half paid by the vendor). For cattle sales, a levy of \$1.50 per head is payable by the vendor and \$2.00 per head by the purchaser.

### 2.10.2 Commissions on Stock and Plant Sold Through a Stock and Station Agent

#### (i) Canterbury

##### Sale Yards

Sheep	5.50%
Prime/Store Cattle	5.50%
Vealers	5.50%
Bulls Stud	8.50%
Dairy Cattle	7.50%
Pigs	6.25%
Deer	5.50%
Goats	5.50%
Bobby Calves	7.50%
Stud Deer	8.50%

##### Clearing Sales

Sheep	5.50%
Store Cattle	5.50%
Dairy Cows	7.50%
Horses	10.00%
Stud Sheep/Cattle	8.50%
Pigs	6.25%
Dogs	8.50%
Plant and Machinery	6% to 15%
Deer	5.50%

The above commission rates are for auction sales only. Most rates for private selling are slightly higher. The rates for plant and machinery are a guide only as it depends on the quality of the items and the value. High value can be negotiable.

#### (ii) Central North Island

##### Sale Yards

Sheep	5.50%
Cattle	5.50%
Vealers	5.50%
Bulls Stud	9.00%
Dairy Cattle	7.50%

##### Clearing Sales

Sheep	5.50%
Store Cattle	5.50%
Pigs	5.50%
Dairy Cows	5.50%
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 12.0 to 14.0 cents per kg.

Greasy Wool Testing – Yield, Mean Fibre Diameter and Colour \$58 per test per lot

NZWB levy From April 2003 a flat rate levy was imposed of 7c per kg of wool and from July 2003 a levy of 2.5c per kg applied to dags, calculated on actual weight.

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 present. There is still the option to reintroduce the collection of levies if a suitable industry project was requiring 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 \$4.50 per kg for handling and grading costs.
- Buyer packing fee - \$1.50 per kg in the South Island and \$2.50 per kg in the North Island

See also *Section 2.10.7 for Deer Industry New Zealand* levies.

## 2.10.6 Killing and Inspection Charges

### Killing Charges:

Livestock procurement policies vary widely between meat processing/exporting companies and there may be significant differences between North and South Island policies.

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 *Asure New Zealand Ltd* 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 *Asure 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 2003/2004 levels of meat inspection costs are approximately:

Lamb	\$1.55 per head	Goats	\$1.63 per head
Sheep	\$1.70 per head	Bobby Calves	\$1.25 per head
Cattle	\$15.38 per head	Deer	\$8.10 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 1 October 2003). These are GST inclusive.

**Note:** The Animal Health Board new levy will apply from 1 February 2004.

Current Levies per head:	Adult cattle	Calves (up to 27kg)	Vealers (27 to 160kg)
Bovine -TB Cattle Levy <sup>2</sup> (Animal Health Board)	\$12.94	-	\$12.94
Meat New Zealand	\$4.05	\$0.225	\$4.05
<b>TOTAL LEVIES</b>	<b>\$16.99</b>	<b>\$0.225</b>	<b>\$16.99</b>

Levies per head:	Lambs	Sheep and Goats	Pigs
Meat New Zealand	\$0.45	\$0.45	-
Pork Industry Board <sup>1</sup> .	-	-	\$4.725
<b>TOTAL LEVIES</b>	<b>\$0.45</b>	<b>\$0.45</b>	<b>\$4.725</b>

**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 pig s 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).

As a result of the August 2003 referendum changes are in prospect for the *New Zealand Meat Board*. Included amongst these are the establishment of a new meat and wool organisation that will take over the Board's industry-good activities and be financed by levies on livestock slaughtered and on wool under the Commodity Levies Act. The commodity levy on livestock slaughtered may come into effect as early as July 2004 and will be accompanied by the cessation of the Board's current levy. The proposed initial rates (from the referendum ballot paper) of the commodity levy are:

All sheep (including lambs) slaughtered	\$0.40 per head
All cattle (excluding bobby calves) slaughtered	\$3.60 per head
All goats slaughtered	\$0.55 per head

There will be no commodity levy on bobby calves slaughtered.

### **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 Industry New Zealand Levies**

Levies effective from 1 October 2003:

	Velvet (per kg)		Venison (per kg)	
	Fallow	Other	Fallow	Other
DI NZ	\$0.50	\$3.50	\$0.07	\$0.12
AHB	\$0.22	\$0.22	\$0.022	\$0.022
DFA	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
Total excl GST	\$0.72	\$3.72	\$0.092	\$0.142

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 and 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.:*

The published share price as at December 2003 was \$4.50 per share.

## Peak Notes

In addition to holding shares, supplying shareholders are also required to hold Peak Notes. These are based on suppliers milk supply during the season. 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 which is equivalent to an average investment in peak notes of \$1.03 per kg milksolids. These will always be redeemed at their original issue price.

The average *Fonterra* shareholder investment, including peak notes was \$5.39 per kg of milksolids in 2002/2003. For *Westland* it was \$3.90 per kg milksolids and *Tatua* \$5.10 per kg milksolids.

Source: *Dairy Monitoring Report – July 2003*

### 2.10.9 Herbage Seed Levy

The Commodity Levies (Non Proprietary and Uncertified Herbage Seeds) Order 1997 gives provision for a variable levy rate. NPC levies are fixed under the Commodity Levies (Non Proprietary and Uncertified Herbage Seeds) Order 2003 and are used to pay *AgResearch* for the costs involved in maintaining the publicly owned common Grasslands cultivars.

Cultivar	<i>AgResearch</i> NPC Maintenance Rate
Red Clover	Grasslands Pawera 5.0%
	Grasslands Turoa 5.0%
White Clover	Grasslands Huia 1.0%
	Grasslands Pitau 3.0%
	Uncertified White Clover 1.0%
Timothy	Grasslands Kahu. 5.0%
Ryegrass	Grasslands Manawa 5.0%
	Grasslands Moata 4.0%
	Grasslands Nui 0.08%
	Grasslands Ruanui 5.0%
	Grasslands Tama 4.0%
	Uncertified Ryegrass 0.08%

### 2.10.10 Arable Crop Growers Levies

*United Wheatgrowers* levy (Wheat insurance levy) - \$2.95 per tonne, on wheat only. (Valid from the 1<sup>st</sup> February 2004 until 31 January 2005.)

*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 2003 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

Royalties may be charged on seed or on end point tonnage. They range from \$2.20 to \$3 per tonne dependent on cultivar and company policy.

### 2.10.12 Horticultural Levies

#### Berryfruit:

##### Blackcurrants

This is levied at 4 cents per kg on all blackcurrants produced in New Zealand, under the Commodity Levies (Blackcurrants) Order 2001.

##### 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 on those for export.

##### Boysenberries

A voluntary levy of 2 cents per kilogram on local market sales.

Export levies are through exporter contribution to industry expenses.

##### 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	1.5 cent per kg	Oranges/tangelos	1 cents per kg
Lemons/limes/grapefruits	2 cents per kg	Processed citrus fruit	0.003 cents per 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%

*Summerfruit New Zealand* (SNZ) is a recognised product group under the *Horticultural Export Authority* (HEA). Any export of summerfruit comes under the auspices of the HEA, while the export programme is administered by SNZ. Annual registration fees for exporters with SNZ are listed below for the 2003/2004 season.

	Details	
Growers	If paid between 1 and 31 October	\$142.50
	Late fees apply 1 to 15 November	\$178.15
	Excess late fees apply 16 to 30 November	\$213.75
Packhouses	Must pay between 1 and 31 October. No late registration accepted.	\$150.00
Exporters	A range of fees apply from both SNZ and HEA. Potential exporters should contact HEA in the first instance.	

SummerGreen is SNZ's integrated fruit production programme. At this stage the only costs involved in participating in SummerGreen is the cost of the manual and workbook (\$50 including GST). It is possible that some other costs may be charged to growers in the future.

**Other Fruits:**

	Local market grower	Export market grower
Nashi Pears	1.5c 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	-	25c 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 2003 to 30 September 2004.

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 of \$60 per ha per annum.

## 2.11 SUNDRY CROPPING and HORTICULTURAL EXPENSES

### 2.11.1 Seed Certification Charges

*AgriQuality Ltd:*

The following fees comprise the total Seed Certification Charge:

- Grower fee - per paddock
- Plot testing fee - per line
- 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 1 <sup>st</sup> or 2 <sup>nd</sup> 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
	\$11.55 per line

#### Plot Testing Fee:

#### Per Kilogram Fee:

Certified Seed	cents/kg MD seed: (sack weight in brackets)	
Cereals	0.825 (50kg)	0.715 (70kg)
Grasses/Brassicas	1.485 (25kg)	1.21 (40kg)
Herbage Legumes	2.695 (25kg)	2.31 (50kg)
Redressing and Downgrading	20.9¢ per sack	

#### Uncertified Seed:

Per line fee	\$40.70 per line	
Per kilogram fee	cents/kg MD Seed: (sack weight in brackets)	
Cereals	0.44 (50kg)	0.33 (70kg)
Grasses/Brassicas	0.99 (25kg)	0.66 (40kg)
Herbage legumes	1.65 (25kg)	1.21 (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		\$11.55
Per kg fee - 6500 kg MD ryegrass x 1.485 cents per kg MD seed		\$96.52

### 2.11.2 Grain Drying Charges

*Agri Pro Seeds: (Ashburton)*

All grain drying	- up to 15% moisture	\$18.00 per tonne
	- greater than 16% moisture	\$20.00 per tonne

Wheat Screening	\$34.00 per tonne
Seed sampling for certification (plus mileage)	\$25.00 per sample

*SGS New Zealand Ltd.: (Timaru) - Grain Terminal charges 2003*

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	\$17.75	\$17.75
16.6 to 18.0	\$20.95	\$20.75
18.1 to 18.9	\$26.25	\$27.50
19.0 to 19.9	\$29.00	\$30.50
20.0 to 20.9	\$32.50	\$34.40

Maize: Manawatu / Rangitikei (*Wrightson Seeds*)

% moisture	
20%	\$21.25 per tonne
22%	\$24.75 per tonne

**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	16 to 17 cents per kg
Cocksfoot		36.00 cents per kg
Clovers	White, Red and Alsike	38 cents per kg
Grass seed (Fine)	Browntop, Dogstail and Timothy	42 cents per kg
	Fescue	22 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.

Brassica	22 cents per kg
Chemical treating	\$36 per tonne plus materials

**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	\$48 to \$61 per tonne
Garden Peas, Beans and Lentils	\$55 to \$65 per tonne
Oats (dressing and clipping)	\$47 to \$66 per tonne

Sampling is charged at \$28 to \$30 per line and dumping of disposable offal is \$10 per tonne. Health certificates cost \$20 to \$25 per line.

**Grading**

*SGS New Zealand Ltd.:* (Timaru) - Laboratory charges 2003

	Price
Grading service charges	
Pulses – (Peas, Lentils, etc)	\$2.55 per metric tonne
General purpose Wheat/Barley	\$1.05 per metric tonne
Peas/Grains tested at 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 2003

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 are \$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 plus weighing cost applies on all product delivered from the grain terminal to *PrimePort* or any other part of the *PrimePort*, Timaru 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)

	Cost per sample
<b>Purity and Germination Tests:</b>	
Purity and Germination combined	\$166.10
Purity only	\$117.70
Germination only	\$121.00
Germination only Field Dressed	\$67.00
<b>Additional Tests or Services:</b>	
Endorsed certificate for export	\$81.40
Downgrading	\$51.70
Seed weight	\$17.60
Fluorescence	\$46.20
Moisture	\$92.40
Tetrazolium	\$115.50
Vigour	\$115.50
Buried clover seed content in soil sample	\$115.50
Seeds for identification	\$69.30
Heterogeneity tests	\$869.00
<b>Seed-borne Disease Tests:</b>	
Phytosanitary and Quarantine	
Tests for	
- Fungi	\$127.60
- Bacteria	\$127.60
- Viruses	\$127.60
- Nematodes	\$127.60
Combined Tests	
- Pea Bacterial Blight (PBB) and Pea Seedbourne Mosaic Virus (PSBMV)	\$207.90
- PBB, PSBMV and Ascochyta	\$266.20
<b>Endophyte Tests - Ryegrass and Fescue:</b>	
Seed-borne test	\$127.60
Grow out test	\$127.60
<b>Trees:</b>	
Germination and seed weight	\$110.00
Germination, seed weight and Tetrazolium	\$165.00
Germination, seed weight, Tetrazolium and moisture	\$187.00
<i>Agri Pro Seeds:</i> (Ashburton)	
Separate laboratory tests on Milling Wheat	
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 laboratory tests	\$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**

(See also *Section 2.22.5 – Shelter / Windbreak / Shade and Weed Cloth*)

*Fruitfed Supplies: (Donaghys Products)*

Weedtex	91cm x 50m roll	\$53.54
Tree webbing	Per 100m	\$24.39

### **2.11.6 Crates, Packaging and Weighing Equipment**

#### **Crate Hire**

*Fruit Case Company:*

F80	610 x 420 x 445mm 80 litre	\$11 deposit plus \$1.00 hire fee
F75	600 x 400 x 394mm 75 litre	
F/R47	600 x 400 x 247mm 47 litre (green/red)	
F35	600 x 400 x 193mm 35 litre	
Plastic Bin	1200 x 1000 x 738mm	\$200 deposit plus \$15 hire fee
Pallet	1200 x 1000mm	\$25 deposit plus \$2 hire 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,250,400,500,800mm 50m roll	\$9.00 to \$34.50
Calla wrap	widths:75mm,100,150,200,250mm 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 Growers Ltd.:*

Standard single layer tray		\$1.04
Euro double tray		\$1.11
Euro bulk tray		\$1.51
Pallet P10		\$25.00
Cap P10		\$5.00
Standard pallet		\$12.00
Standard cap		\$5.00
Container pallet		\$16.00
Container cap		\$7.50
Plateau cap		\$5.00
Labour		\$0.05 per box
Glue		\$0.02 per box
VertV boards		\$1.06

*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	\$64.50 to \$54.50 per thousand
	T1204	100 x 100 x 83mm	\$97.50 to \$81.00 per thousand
Punnets	T1664	160 x 115 x 60mm	\$119.00 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 \$102.00 per thousand

These ace pots and punnets fit seed tray T1686

Punnets	T1408	100 x 150 x 50mm	\$93.00 to \$84.00 per thousand
	T2131	100 x 150 x 60mm	\$95.00 to \$79.00 per thousand
	T1863	6 cavity punnet	\$122.50 to \$112.00 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 \$30.08 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. Nelson and North Island prices are cheaper as the throughput is greater.

Packhouses now have an administration cost of 30c per bin, and a packers commission of \$1.50 per bin.

The average costs for packing across varieties and sizes are around \$55 per bin for standard apple varieties, and \$58 per bin for more difficult apple varieties. (ENZA)

##### Pears

The average cost for packing, across all varieties and sizes, is approximately \$65 per bin. (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.)

*Seeka Kiwifruit Industries:*

Hayward CK (Green) \$1.69 per tray

Gold \$2.67 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 \$12 per apple bin per month for cool storage.

### 2.11.9 Pollination

#### Hive Hire:

One Hawkes Bay company charges the following:

Stone and pipfruit:	\$75 to \$90 per hive
Kiwifruit:	\$100 to \$150 per hive

<b>Pollination:</b> (\$ per hive)	<b>2001/2002</b>	<b>2002/2003</b>
Pipfruit, stonefruit and berryfruit	\$48.00 to \$55.00	\$50.00 to \$55.00
<b>Kiwifruit</b>		
Hawkes Bay	\$75.00 to \$90.00	\$80.00 to \$100.00
Taranaki	\$65.00 to \$75.00	\$70.00 to \$80.00
Auckland	\$70.00 to \$100.00	\$80.00 to \$115.00
Bay of Plenty	\$86.00 to \$130.00	\$95.00 to \$138.00

Source: *Horticulture Monitoring Report – July 2003*

#### Other Crops: (Canterbury)

Vegetable seeds i.e. Cabbage, Cauliflower and Radish	\$100 to \$110 per hive
Clover and Brassica	No charge
Carrot	\$130 to \$140 per hive (extra if hives require feeding sugar syrup)
Blackcurrants / pears	Approximately \$70 per hive.

#### Hive Purchase:

Nucleus hive (4 frames with bees, a queen bee, brood and honey) \$35 to \$50

Source: *Horticulture Monitoring Report - July 2003*

#### Bumble Bees:

Zonda Resources: per hive

Serves up to 1,500 square metres. Both indoor and outdoor. \$65 to \$125

Outdoor hives can be supplied in ply outers, which have an additional bond of \$20 which is refunded when the hives are returned to us (at our cost).

### 2.11.10 Weighbridge Charges

Fulton Hogan Ltd (Canterbury) - \$12.00 per weigh.

Wrightson (Manawatu/Rangateiki) - \$8.00 per weigh (weighbridge is only 9.1 meters 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:

<b>Sheep and Beef</b>	(per su)
Northland	\$3.28
Waikato/Bay of Plenty Intensive	\$2.96
Central North Island Hill Country	\$3.55
Gisborne Large Hill Country	\$3.60
Hawkes Bay/Wairarapa Summer Dry	\$3.46
Hawkes Bay/Wairarapa Summer Moist	\$2.94
Manawatu/Rangitikei Intensive	\$4.19
South Island Merino	\$2.21
Canterbury/Marlborough Hill Country	\$1.91
Canterbury/Marlborough Breeding and Finishing	\$3.20
Otago Dry Hill	\$2.44
Southland/South Otago Hill Country	\$3.57
Southland/South Otago Intensive	\$3.05
National	\$3.16
<b>Dairy</b>	(per cow)
Northland	\$57
Waikato/Bay of Plenty	\$56
Lower North Island	\$64
Canterbury	\$65
Southland	\$48
National	\$63
<b>Deer</b>	(per su)
North Island	\$4.54
South Island	\$4.30
<b>Arable</b>	(per ha)
Canterbury	\$92
<b>Horticulture</b>	(per ha)
Kiwifruit	\$1,870
Hawkes Bay Pipfruit	\$646
Nelson Pipfruit	\$762

National averages are weighted

Source: MAF Monitoring Reports - July 2003

### 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:

<b>Sheep and Beef</b>	(per su)
Northland	\$1.31
Waikato/Bay of Plenty Intensive	\$1.13
Central North Island Hill Country	\$0.92
Gisborne Large Hill Country	\$0.60
Hawkes Bay/Wairarapa Summer Dry	\$1.15
Hawkes Bay/Wairarapa Summer Moist	\$1.09
Manawatu/Rangatikei Intensive	\$1.64
South Island Merino	\$1.09
Canterbury/Marlborough Hill Country	\$1.26
Canterbury/Marlborough Breeding and Finishing	\$1.57
Otago Dry Hill	\$1.39
Southland/South Otago Hill Country	\$1.41
Southland/South Otago Intensive	\$2.06
National	\$1.24
<b>Dairy</b>	(per cow)
Northland	\$32
Waikato/Bay of Plenty	\$27
Lower North Island	\$33
Canterbury	\$29
Southland	\$25
National	\$31
<b>Deer</b>	(per su)
North Island	\$2.27
South Island	\$1.72
<b>Arable</b>	(per ha)
Canterbury	\$49
<b>Horticulture</b>	(per ha)
Kiwifruit	\$1,300
Hawkes Bay Pipfruit	\$747
Nelson Pipfruit	\$861

Source: MAF Monitoring Report - July 2003

For details see individual items in this section.

See also Section 2.12.2 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 (0.24 l per kW hr)	Normal Cultivation (0.32 l per kW hr)
HP	kW		
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 \$88,000; Resale price \$48,400

Running: Average 585 hours per year

---

Fixed costs per annum:	
Opportunity cost \$88,000 at 6% (Real)	\$5,280.00
Replacement cost \$88,000 - \$48,400	
\$39,600 x sinking fund factor (6% for 6 years) 0.143363	\$5,677.17
Annual licensing fee	\$31.20
Insurance	\$440.00
	\$11,328.37
<b>Total fixed cost per hour (585 hours/year)</b>	<b>\$19.36</b>

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Variable costs per hour:	
Fuel usage - 18 litres at 53 cents per 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)	\$8.80
<b>Total variable costs per hour excluding labour</b>	<b>\$19.77</b>
<b>Total cost (fixed plus variable) per hour</b>	<b>\$39.13</b>

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**(ii) 95 kW (124 HP) 4WD Tractor**

Replaced after 4000 hours (6 years)

Initial Cost \$120,000; Resale price \$66,000

Running: Average 670 hours per year

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Fixed costs per annum:	
Opportunity cost \$120,000 at 6% (Real)	\$7,200.00
Replacement Cost (\$120,000 to \$66,000)	
\$54,000 x Sinking fund factor (6% for 6 years) 0.143363	\$7,741.60
Annual licensing fee	\$31.20
Insurance	\$530.00
	\$15,502.80
<b>Total fixed cost per hour assuming 670 hours per year</b>	<b>\$23.14</b>

---

Variable costs per hour:	
Fuel usage - 25 litres at 53 cents per 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)	\$12.00
<b>Total variable cost per hour excluding labour</b>	<b>\$27.24</b>
<b>Total cost (fixed plus variable) per hour</b>	<b>\$50.38</b>

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### (iii) 150 kW (200 HP) 4WD Tractor

Replaced after 4500 hrs (6 years)

Initial Cost \$204,000; Resale price \$115,000

Running: Average 750 hours per year

---

Fixed costs per annum:	
Opportunity cost \$204,000 at 6% (Real)	\$12,240.00
Replacement cost (\$204,000 - \$112,200)	
\$91,800 x Sinking fund factor (6% for 6 years) 0.143363	\$13,160.72
Annual licensing fee	\$31.20
Insurance	\$830.00
	\$29,261.92
Total fixed cost/hour assuming 750 hours per year	\$39.02

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Variable costs per hour:	
Fuel usage - 40 litres at 53 cents per 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)	\$20.40
Total variable cost per hour excluding labour	\$44.78

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Total cost (fixed plus variable) per hour	<b>\$83.38</b>
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### 2.13.3 Car Operating Costs

Source: Automobile Association; Directions, Winter 2003

Petrol-driven vehicles estimated on 14,000km per year, first five years of ownership

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	Up to 1,300cc	1,301-1,600cc	1,601-2,000cc	above 2,000cc
Total fixed costs:	\$4,105	\$5,629	\$7,247	\$8,164
Running costs:				
Petrol	\$1056.8	\$1103.85	\$1,317.18	\$1,654.13
Oil	\$43.74	\$43.74	\$43.74	\$43.74
Tyres	\$157.78	\$182.65	\$224.49	\$229.83
Repairs and maintenance	\$732.95	\$724.90	\$777.97	\$879.21
Total running costs	\$1,991.27	\$2055.13	\$2,363.87	\$2,806.91
Running cost per km	43.5 cents	54.9 cents	68.6 cents	78.4 cents
Fixed plus running costs	\$6,097	\$7,684.45	\$9,611	\$10,971

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Fixed cost is made up of the cost of depreciation, interest on outlay, insurance, licensing and warrants of fitness.

### 2.13.4 Fuel, Oil and Grease

Petrol	- Unleaded	(91 octane)	94.62 cents per litre
	- Unleaded	(96 octane)	106.65 cents per litre
Diesel			52.08 cents per litre

Note: Petrol and diesel prices are bulk delivered to farm, Prices are for deliveries to Zone 1 (0 to 65km from nearest bulk terminal.) Deliveries beyond Zone 1 are subject to additional freight charges.

#### Oil:

*One major N.Z. Company's oil prices:*

	Container size	Wholesale (delivered)
Universal tractor oil 15-40W	205 litre	\$4.03 per litre
Gear oil 80W	60 litre	\$4.75 per litre
Two stroke oil	60 litre	\$4.40 per litre
Multi-purpose grease, heavy duty	18 kg	\$7.12 per kg
Hydraulic fluid HLP46	60 litre	\$3.57 per litre
Antifreeze	20 litre	\$5.25 per litre

#### Grease:

Cartridge	425 g	\$4.25 each
Carton of 12 cartridges		\$51.00
Bucket	2.5 kg	\$21.73
18kg pail	18 kg	\$128.23

### 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 January 2004 (including GST)

Type	Class	Petrol	Diesel
Private Car		\$217.05	\$284.40
Agricultural Machinery	Exempt Class B	\$35.10	
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	\$217.05	\$307.30
	3501kg and over	\$218.55	\$308.80
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 manufacturer's gross vehicle mass (GVM) of more than 3.5 tonnes (3500kg) or is powered by a fuel not taxed at source. Where the manufacturer'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 Liquefied 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. Distance-licensed vehicles must be fitted with a distance recorder that is of a type and accuracy to provide reliable records of distance travelled.

In October 2003 a 10,000 km distance licence for a 2 tonne vehicle (Type 1) cost \$247.40 (including GST) plus a transaction fee. For more information on vehicle licensing and road user charges visit the LTSA website [www.ltsa.govt.nz](http://www.ltsa.govt.nz)

**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). For a front-end loader of 10 tonnes the annual fee would be \$269.47

**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 manufacturer 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 \$320,000; Trade in Value \$124,800

Fixed costs per annum:		
Opportunity cost \$320,000 at 6% (Real)	\$19,200.00	
Replacement cost (\$320,000 - \$124,800)		
\$195,200 x sinking fund factor		
(6% for 15 years) 0.042963	\$8,386.38	
Annual licence (6 months)	\$15.60	
Insurance	\$1,500.00	
		\$29,101.98
Total fixed costs per hour assuming 200 hrs per year		\$145.51
Variable costs per hour:		
Fuel (.24 litres/kW hr) 30.48 litres at 53 cents per litre	\$16.15	
Oil and filters 15% of fuel cost	\$2.42	
Repairs and maintenance 100% of purchase price		
over economic life (5000 hours)	\$64.00	
Total variable costs per hour excluding labour		\$82.57
Total costs (fixed plus variable) per hour		<b>\$228.08</b>

## **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.
- The accuracy, detail and consistency of information provided, is often far more important than the method of presentation.

An approximate range of fees typically charged for pastoral and cropping farms would be from \$2000 to \$5000 per annum, depending on service provided, with a typical fee for a standard ownership and trading structure, being around \$2500 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 by \$500.

### **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.

*Source: Wrightson Solutions Ltd.*

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.

### **2.14.3 Land Transfer Fees**

*Land Information New Zealand* charges this fee on all land transactions, such as transfers, mortgages and related documents. Registration of any instrument (transfer, mortgage, discharges and withdrawals) is \$50.00 over the counter but \$21.00 if electronic. Every Certificate of Title, other than the first which is free, costs \$6.00 each. The cost of registering a new title is \$143.00.

#### **2.14.4 Legal Fees**

The former system of a nationwide 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. Any one 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 is charged, 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 \$125 to \$450. 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.

#### **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 becomes the legal owner 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 that 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.

One Canterbury valuers typical charges are:

High country run valuation	\$1,800 to \$2,000
Life style block	\$450 to \$500
Residential rural townships	\$350

Charges include travel and disbursements

Hourly rate consultation \$70 to \$80 per hour.

#### 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
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<i>Land Information New Zealand</i> fees (base fee begins at \$424)	\$1,000 to \$2,000
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In addition there are 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:

<b>Sheep and Beef</b>	(per su)
Northland	\$3.35
Waikato/Bay of Plenty Intensive	\$3.12
Central North Island Hill Country	\$1.95
Gisborne Large Hill Country	\$2.41
Hawkes Bay/Wairarapa Summer Dry	\$2.95
Hawkes Bay/Wairarapa Summer Moist	\$2.67
Manawatu/Rangatikei Intensive	\$3.13
South Island Merino	\$2.08
Canterbury/Marlborough Hill Country	\$2.29
Canterbury/Marlborough Breeding and Finishing	\$2.64
Otago Dry Hill	\$2.18
Southland/South Otago Hill Country	\$2.76
Southland/South Otago Intensive	\$3.69
<b>Dairy</b>	(per cow)
Northland	\$47
Waikato/Bay of Plenty	\$51
Lower North Island	\$57
Canterbury	\$35
Southland	\$41
<b>Deer</b>	(per su)
North Island	\$3.41
South Island	\$4.08
<b>Arable</b>	Per(ha)
Canterbury	\$62
<b>Horticulture</b>	(per ha)
Kiwifruit	\$1,638
Hawkes Bay Pipfruit	\$1,938
Nelson Pipfruit	\$2,117

*Source: MAF Monitoring Reports - July 2003*

### 2.15.2 Telephone Costs

*Telecom:*

Residential Products and Services		Cost per month
Connections:	Features	
HomeLine	Unlimited local calls	\$34.93

HomeLine Economy	20c per local call, calls longer than 2hrs are charged at an additional 20c for each 2hr period	\$22.71
Second Line:		
Second HomeLine		\$26.62
Second HomeLine Economy		\$22.71
Call Plans:		
Residential National Calling		
Favourite Place – Neighbouring Area	Unlimited calls 24 hours a day (min rental 1 mth)	\$17.73
Favourite Place - NZ	Unlimited off-peak calls (minimum rental 1 month)	\$25.78
National Plans for private dwellings (prices include GST)		
Quick Call Plan	Monthly charge plus \$0.09/min off-peak, \$0.29/min peak	\$4.44
\$5 Anytime Plan	\$5 is the maximum for any call in NZ up to 2hrs. Calls cost \$0.19 per minute up to \$5 off-peak and \$0.45 per minute up to \$5 peak	
\$3 Weekends & Weeknights Call Plan	\$3 is the maximum on weekends and weeknights. Calls cost \$0.19 per minute up to \$3 on weekends/weeknights and \$0.45 per minute on weekdays.	
Home to Mobile Calling Plans (prices include GST)		
Off Peak Plan	\$0.49 per minute off-peak, \$0.99 per minute peak	
Anytime Plan	\$0.71 per minute anytime	

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#### Small Business Products and Services

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##### Connections:

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BusinessLine		\$51.93
SmartLine	Inbuilt range of smartphone features including call diversion, call waiting, auto callback, auto recall, last number redial and 3 way calling (12 month contract with penalty for early disconnection)	\$53.28
SmartLine Plus	Six standard smartphone services plus \$25 worth of free calling per month	\$71.06
MessageLine For Business	Standard business line rental plus call minder (minimum 12 months)	\$53.28
MessageLine Plus	Standard business line rental, call minder and \$25 worth of free calling per month	\$71.06
FaxLine	Standard Business line rental plus FaxAdvantage (minimum 12 months)	\$53.28
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	

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**Toll Charges** - Refer to Telephone Directory

## Mobile Phone Plans

*Telecom:* These prices include GST.

Plan	Mthly Fee	Free Minutes	Peak National	Off Peak National
<b>Prepaid</b>				
Go Mytime	None	None	\$1.39	\$0.49
Go Anytime	None	None	\$0.89	\$0.89
Go Mytime 100	\$20	100	\$1.39	\$0.69
Go Mytime 200	\$30	200	\$0.99	\$0.49
Go Mytime 300	\$40	300	\$0.89	\$0.29
Go Anytime 50	\$50	50	\$0.79	\$0.49
Go Anytime 100	\$90	100	\$0.56	\$0.45
Go Anytime 200	\$135	200	\$0.49	\$0.41
Go Anytime 400	\$215	400	\$0.40	\$0.40
Go Anytime 800	\$355	800	\$0.40	\$0.40

Off peak national calling is from 7pm to 7am weeknights, as well as all weekends and national statutory holidays.

All plans have a Text messaging service \$0.20 per text and the most you'll pay is \$10

**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:

### **MetPhone Mountain and Ski Info**

Central North Island	0900 999 15
Nelson Lakes	0900 999 02
Canterbury Region	0900 999 26
Southern Lakes	0900 999 81

**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

*Paradise Net:*

Primary Plan	20 hours internet access	\$10.00 per 28 days
Paradise Plan	150 hours internet access	\$15.00 per 28 days
Paradise Plan	250 hours internet access	\$20.00 per 28 days

**Ihug:**

Flat Rate	Unlimited internet access		\$27.95 per month
Get 60	60 hours internet access per month		\$19.95 per month
Get 12	12 hours internet access per month		\$9.95 per month
Get 3	3 hours internet access per month		\$4.95 per month
Get Prepay	Prepay for 12 months of flat rate access		\$299 per year
Jetstream		Ihug Fee	Telecom Fee
Starter: 128kbps, 10GB of free international data		\$34.95	\$29.95
Home: 256kbps, 500MB of data		\$10	\$39.95
Home: 256kbps, 2000MB of data		\$10	\$59.95
Fullspeed: 500MB of data / 1000MB of data		\$10 / \$10	\$49 / \$69

**2.15.4 Postage**

Domestic Rates and Services: (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 (Nationwide)	Ticket	Maximum weight	Price per unit
Post	1 kg	up to 1 kg	\$2.95
	1-1.5 kg	up to 1.5kg	\$3.50
FastPost	1 kg	up to 1 kg	\$3.50
	1-1.5kg	up to 1.5kg	\$4.25

**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
Within island over 150km	For first 10kg	\$7.95
	For each extra 5kg	\$4.50

Between islands	For first 5kg	\$10.95
	For each extra 5kg	\$9.00
Nation-wide	Up to 1kg	\$3.50
	Up to 2kg	\$4.75

### 2.15.5 Courier Charges

#### *New Zealand Couriers:*

##### Point of origin - Christchurch

Ticket Type	Area	Volume or weight	Cost
South Island:			
Local	Christchurch Metro including Lyttelton, Belfast, Templeton	0.1m <sup>3</sup> / 25kg	\$3.17
Outer area	South to Ashburton North to Kaikoura	0.025m <sup>3</sup> / 15kg	\$3.83
Shorthaul	South Island North of Dunedin	0.025m <sup>3</sup> / 15kg	\$5.55
Longhaul	South of Dunedin (Central Otago)	0.025m <sup>3</sup> / 5kg	\$8.33
North Island:			
Capital Link	Wellington Metro including Otaki and Hutt Valley	0.025m <sup>3</sup> / 5kg	\$10.04
Inter Island	Rest of the North Island	0.025m <sup>3</sup> / 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	\$2.05
SML	Express Pak Small 265mm x 200mm (A5)	Unlimited weight	\$2.45
MED	Express Pak Medium 350mm x 260mm	Unlimited weight	\$4.55
LGE	Express Pak Large 450mm x 360mm	Unlimited weight	\$6.05
MS	Localink Chch metro area	Per 0.125m <sup>3</sup> /25kg	\$2.60
RS	Ruralink Up to 75km from major towns	Per 0.050m <sup>3</sup> /10kg	\$3.40
RN	Regionalink Up to 150km from major towns	Per 0.050m <sup>3</sup> /10kg	\$4.40
PE	Intra Parcel (rest of South Island) Next morning business delivery	Per 0.030m <sup>3</sup> /8kg	\$7.15
NE	Inter Parcel (North Island) Next morning business delivery	Per 0.030m <sup>3</sup> /8kg	\$15.40
SG	Signature Express (within Is.) Next morning business delivery	Per 0.012m <sup>3</sup> /3kg	\$3.60
SPBI	Small Parcel between Islands Inter island next day delivery	Per 0.012m <sup>3</sup> /3kg	\$7.70
TD	Two Day Inter island two day service	Per 0.030m <sup>3</sup> /8km	\$9.15
SD	Saturday Delivery (nationwide)		\$2.85

#### *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 3 to 6
G	Rest of the World	3 to 6

#### 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	\$84 - \$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 –\$140	\$151-\$172	\$202-\$223	\$259-\$289	\$273-\$306	\$281-\$314	\$345-\$381
8.5 – 10.0	\$145-\$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	\$55 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	\$1.89
E11 – DLE	Plastic – 225mm x 115mm	20 per packet	\$2.05
E20 – A5	Plastic – 190mm x 260mm	20 per packet	\$2.30
E40 – A4	Plastic – 325mm x 235mm	20 per packet	\$4.30
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	Max wt	Pack Price	Quantity per pack	Pack price
DLE	130mm x 240mm	3kg	\$4.05	25	\$56.80
A5	190mm x 280mm	3kg	\$5.55	25	\$64.15
A5 Bubble	190mm x 280mm	3kg	\$6.15	10	\$37.35
A4	257mm x 325mm	3kg	\$7.05	25	\$125.45
A4 Bubble	257mm x 325mm	3kg	\$9.25	10	\$60.10
Foolscap	280mm x 380mm	3kg	\$8.65	25	\$166.20
Line flow	400mm x 440mm	3kg	\$15.40	25	\$299.00

**2.15.6 Subscriptions (Magazines/Farming Organisations)**

Some examples are:

**Magazines**

"Dairy Exporter"	\$48.00 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"	\$50.00 per year or \$5.00 per copy (11 issues)
"Lifestyle Farmer"	\$27.50 per year or \$5.50 per copy
"The Orchardist"	\$81.00 per year or \$9 per copy
"The Deer Farmer"	\$89.95 per year (11 issues)
"Commerce Horticulture"	\$67.50 per year

**Organisations***Young Farmers:*

Senior member	\$44.44
Schools (register the school not individuals)	\$44.44
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)	\$26.00
Archival fee for "Classic Photography" taken pre 1995 – priced per "Flight Run"	\$36.00
Photographic enlargements (most recent colour and/or black and white imagery):	
Contact Prints	23 x 23 \$32.00
A4 (21 x 29)	23 x 34 \$72.00
A3 (29 x 42)	34 x 46 \$88.00
A2 (42 x 59)	46 x 70 \$152.00
A1 (59 x 84)	70 x 95 \$200.00
Other sizes	\$0.03 per cm

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Half Tones:		
A4	21 x 29	\$104.00
A3	29 x 42	\$120.00
A2	42 x 59	\$128.00
A1	59 x 84	\$160.00
Scans for farm management packages:		
Minimum price for up to 100Mb of data		\$132.00
Data exceeding 100Mb, per Mb of data		\$0.80
Other 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		\$20.00
Over 2 hours		negotiated price
Urgent processing fee (enlargements/contacts and halftones)		List price plus 50%

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## Farm Maps

### *N.Z Land Information Services:*

A mapping service, 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)	\$0.09 per \$100
Mortality and loss of use by accident, illness and disease	
Pedigree bulls:	10.0% of value for 12 months
Run bulls:	10.0% of value for 12 months
Stud rams: (including loss of use)	12.0% of value for 12 months
Deer - Stag: (including loss of use)	12.0% of value for 12 months
	14.0% to include theft and escape
Deer - Hinds:	10.0% 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), Broom e, Browntop, Buckwheat, Celery , Chicory , Chinese Cabbage, Cocksf oot, Echinacrea, F escue, Fodder Radish, Fodder Rape, Lentils, Linseed, Lotus, Lupin, Maize, Mustard, Oilseed Rape, (Canola) Peas, Phacelia, Phalaris, Plantain, Prairie Grass, Radish (seed), serradella, Swede, Tim othy, Turnip, W hite Clovers, Yarrow, Yorkshire Fog.
B (3)	\$28.50	Barley, Borage, Broccoli (seed), Canary Seed, Chrysanthemum (seed), Evening Prim rose, Kale, Oats, Potato (ne w), Ry ecorn, Ry egrass, Spinach (seed), Sweetcorn (process/fresh), Triticale, Wheat.
B (4)	\$40.00	Asparagus, Beans (process/seed), Beetroot, Broad Bean (seed), Cabbage (seed), F odder Beet, Onion (seed), Parsley (seed), Peppers, Red Beet, Sunflower (seed), Sweetcorn (seed), Swiss Chard, Tomato.
B (5)	\$50.00	Kumara

### *Farmers' Mutual Group:*

An average farm package insurance in the Canterbury region is approximately \$4,000 to \$5,000. This includes insurance for farm vehicles, house, contents, farm buildings, public liability, Personal Disability and medical cover.

Insurances are very much individual, a farm package is tailored to suit the needs of the client and their farming types.

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	\$500	\$365.35
Farm Building	Woolshed	Full Replacement	\$100	\$364.30
Farm Contents	Indemnity Value	\$10,000	\$300	\$88.27
	Farming Interruption	\$10,000		5.63
	Livestock & Goods in Transit	\$20,000		
	Baled Hay	\$5,000		\$33.50
Contents of Dwelling	Household Contents	\$50,000	\$200	\$220.88
Motor Vehicle	Private & Farm Use	\$5,000	\$500	\$209.21
Agricultural Vehicles	Tractor	\$50,000	\$500	\$427.49
Farm Bikes	2 Wheel Motorbike	\$5,000	variable	\$435.01
Farm Trucks and Utes	Toyota Hilux	\$10,000	\$500	\$353.59
Livestock & Dogs	Working Dog	\$1,000	Nil	\$66.45
Medical	Cover for a family, including financially dependant children aged 20 or less	\$60,000 per claim	Nil	\$671.66
Personal Disability	Farmer (male) – actively engaged	\$400 weekly benefit	Nil	\$895.88
Public liability	Farmers Liability	\$500,000	\$100	\$112.97
	Forest & Rural Fires Act	\$50,000	\$100	Incl above

### **Forestry**

See *Section 2.22.2*

### **2.16.2 Accident Compensation Commission Levy**

See *Section 4.15.7* and *4.15.8* 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.

District Council			Regional Council		
Council	U.A.C	General Purpose Rate	Council	General Purposes Rate	Works & Services Rate
Whangarei	\$305	\$0.0037178(LV)	Northland	\$33.10	\$0.000294(LV)
Central Hawkes Bay	\$311.89	\$0.0006390(CV)	Hawkes Bay		
Gisborne	\$420	\$0.0015(LV) + \$0.0035 (CV)	Hawkes Bay		
Tararua	\$428	\$0.0008944(LV)	Hawkes Bay		
Hauraki District	\$250	\$0.0024599 (CV) (average)	Waikato	-	-
Waitomo District	\$244	\$0.002976	Waikato	-	-
Waikato District	\$210	\$0.004035 (CV)	Waikato	-	-

Ruapehu District	\$298	\$0.001062 (LV)	Waikato		
New Plymouth District	\$200	0.004218 (LV)	Taranaki	\$0.000352280 (CV)	\$0.000047007 (CV)
Wanganui District	\$380	\$0.01420(LV)	Taranaki		
Taupo District	\$392	\$0.0047413(CV)	BOP		
Tasman District	\$150	\$0.003239(CV)			
Kaikoura District	\$396.70	\$0.00278836 (CV)	Canterbury	\$0.00052458 (CV)	\$0.00012494 (CV)
Selwyn District	\$85.00	\$0.0015170 (CV)	Canterbury	\$0.0005245 (CV)	\$0.0000222 (CV)
Waitaki District	\$178	\$0.003735 (LV)	Otago	\$0.00026703 (CV)	\$0.00007065 (CV)
Central Otago District	\$121.40	\$0.00226 (LV)	Otago		
Queenstown Lakes District	\$330	\$0.000825 (CV)	Otago		
Gore District	\$384.11	\$0.000305(CV)	Southland		
Southland	\$147.20	0.0029125 (LV)	Southland		

#### 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 \$20 per stock unit compared to dry East Coast land which is approximately \$10 to \$15 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 \$500 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 <sup>1</sup>	\$250 to \$300 per hectare
Sheep/Beef/Cropping	\$300 to \$450 per hectare

<sup>1</sup>Alternatively \$20.00 per SU for flat land and \$10.00 to \$15.00 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 for dairy farms with shares. Additional land able to be milked excluding shares is \$750 to \$1,000 per ha.

Drystock farms - around \$550 per ha for cattle finishing land, down to \$100 per ha for hard clean hills.

Vegetable cropping land in the Matamata district is highly sought after and rates considerably above those for dairy farms being paid for good ground.

#### *Hawkes Bay:*

Apple Orchard in Production	\$2,000 to \$4,000 per ha land and trees only
Process Cropping Land	\$1,200 to \$1,500 per ha for crop duration, normally grass to grass
Grazing Land Hill Country	\$15 to \$25 per stock unit or \$200 to \$300 per ha (land only Buildings Conditional)

#### *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)	\$900 to \$1,150 per ha (\$360 to \$460 per acre)
Cropping	\$1000 to \$1300 per ha (\$400 to \$525 per acre)
Dry stock - flat - hard hill depending on the quality	\$180 to \$350 per ha (\$70 to \$140 per acre)

#### **Crown Land**

As from 1971, renewed rents on Crown Renewable Leases, for leases with 33 year terms, 11 year rent rests at 4.5% of rental value (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).

## 2.17 FINANCIAL CHARGES

### 2.17.1 Interest and Bank Charges

#### Important Note:

Interest rates, where quoted, are as at late 2003 to early 2004, 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

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##### 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)

An agreed limit may be set high enough to have funds in reserve

Has ability to direct credit income

Withdrawals by cheque, EFTPOS, ATMs, 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)

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##### **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:

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##### **Farm First Variable Rate Term Loan**

Uses: Purchase of farm or fund expansion. Ability to make lump sum repayments.

Pricing: Variable rates.

Term: Maximum 10 years.

Amount: No minimum.

Repayments: Repayments can be weekly, fortnightly, monthly, quarterly or semi-annually.

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Security: Mortgage over farm property up to 70% of the market value.

**Farm First Fixed Rate Term Loan**

Uses: Purchase of farm or fund expansion. Set repayment amounts for disciplined budgeting of costs.

Pricing: Fixed rates up to 10 years.

Term: Minimum 1 year to maximum 15 years.

Amount: \$100,000 minimum.

Repayments: Repayments can be weekly, fortnightly, monthly, quarterly or semi-annually.

Security: Mortgage over farm property up to 70% of the market value.

**Farm First Ratelock Term Loan**

Uses: Hedge against interest rate rises in advance of draw-down date.

Pricing: Fixed rates up to 10 years.

Term: Maximum 5 years.

Amount: \$100,000 minimum.

Repayments: Repayments can be weekly, fortnightly, monthly, quarterly or semi-annually.

Security: Mortgage over farm property up to 70% of the market value.

**Farm First Dairy Share Variable Rate Loan**

Uses: Designed to allow shareholder suppliers of Fonterra Co-op Group Ltd to fully leverage their shares and peak notes held in Fonterra.

Pricing: Variable rates.

Term: Minimum 1 year to maximum 10 years.

Amount: \$10,000 minimum.

Repayments: Monthly.

Security: Mortgage over all current and future Fonterra shares and peak notes (up to 100% of value). Assignment by Way of Security of Proceeds over Milk Cheque.

**Farm First Dairy Share Fixed Rate Loan**

Uses: Designed to allow shareholder suppliers of Fonterra Co-op Group Ltd to fully leverage their shares and peak notes held in Fonterra.

Pricing: Fixed rates up to 10 years.

Term: Minimum 1 year to maximum 10 years.

Amount: \$10,000 minimum.

Repayments: Monthly.

Security: Mortgage over all current and future Fonterra shares and peak notes (up to 100% of value). Assignment by Way of Security of Proceeds over Milk Cheque.

**Farm First Revolving Credit**

Uses: Seasonal financing requirements.

Pricing: Variable rates.

Term: Renewed annually.

Amount: Minimum \$20,000.

Repayments: At any time. Account balance to remain within the agreed credit limit.

Security: First mortgage over farm property.

Access: Access funds anytime via ATM's, EFTPOS, Telephone banking, PCBB (pc based banking) Internet, or teller transaction.

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### **Rapid Repay Farm Loan**

Uses: Consolidated borrowing with built-in repayment discipline – “Set and Forget”.

Pricing: Variable rates.

Term: Minimum 1 year to maximum 15 years.

Amount: One third of total bank debt (\$100 000 minimum).

Repayments: At any time. Account balance to remain within agreed credit limit.

Security: Mortgage over farm property, up to 70% of market value.

Access: Access funds anytime via ATM’s, EFTPOS, Telephone banking, PCBB (pc based banking) Internet, or teller transaction.

### **Farm First Sharemilkers Loan**

Uses: For the purchase of dairy cows and some other major farm capital expenditure items.

Pricing: Variable and fixed rates up to 10 years.

Term: Maximum 5 years.

Amount: Minimum \$20,000.

Repayments: Monthly, Quarterly or Semi-Annually.

Security: A first priority Specific Security Agreement – Livestock and Goods. Dairy Order over total Dairy Company proceeds.

### **First Farm Overdrafts**

Uses: Seasonal financing required.

Pricing: Variable rates.

Term: Renewed annually

Amount: No minimum.

Repayments: At any time. Account balance to remain within the agreed credit limit.

Security: Mortgage over farm property, stock.

Access: Access funds anytime via ATM’s, EFTPOS, Telephone banking, PCBB (pc based banking) Internet, or teller transaction.

### **Hire Purchase Agreement**

Uses: Purchase a specific asset, and pay a deposit.

Pricing: Booked up to 12 months in advance of drawdown. Fixed rate for 1,2,3,4 or 5 years.

Term: Maximum 5 years.

Amount: \$15,000 minimum.

Repayments: Repayments can be weekly, fortnightly, monthly, quarterly or semi-annually.

Security: Specific Security Agreement over the purchased asset.

### **Asset Finance Agreement**

Uses: Purchase assets, or fund working capital from, existing assets with collateral security.

Pricing: Fixed for full term 1, 2, 3, 4 or 5 years.

Term: Minimum 30 days

Amount: \$15,000 minimum.

Repayments: Monthly principal and interest.

Security: Specific Security Agreements and/or a General Security Agreement.

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## ***The National Bank of New Zealand Limited:***

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### 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 to 5 year fixed terms  
forward fixed rates for future draw down available

- 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: The following repayment options are available:

- 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: Floating rate

Fixed interest rate - 6 months, 1,2,3,4 and 5 year terms

Forward fixed interest rates for future drawdown available.

### Currency Risk Management Solutions

Uses: Currency Risk Management products to manage the exchange rate risk farmers are exposed to.

- 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.

### Seasonal Finance – FreePlan

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: The following account fees apply to FreePlan Accounts:

Fixed monthly fee of \$12.50, which covers all standard transactions

On personal FreePlan Accounts or where DirectLink is taken on a business FreePlan, the fixed monthly fee is \$5, which covers all standard transactions.

An overdraft management fee of 0.083% per month (1% pa) may apply to seasonal accounts.

Account Access: Access to accounts is easy with many alternatives including:

- Cashpoint card - for use in ATM and EFT-POS facilities

- Chequebook

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- 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: The following information is required to support applications:

- Budget and cashflow forecasts

- Financial statements for the previous years

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### ***Rabobank New Zealand Limited:***

#### **Term loans and Revolving Credit Facilities**

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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, plant or dairy company shares

#### **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: As per term loan security

Access: Facility can be accessed by cheque book, debit card, freephone and other options to suit.

#### **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 5 years are available.

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***ANZ Bank:***

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**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 minimising 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.

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### **Westpac:**

All loans are subject to meeting *Westpac's* credit criteria.

*Westpac* 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 *Westpac'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 chequebook, or a range of telephone, card access, and computer banking options to suit.

*Agri-line* – revolving credit facility designed to operate with a credit limit that allows customers to repay / redraw at any time.

*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 *Westpac'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*

*Westpac* 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 *Westpac*).

Where the loan to security ratio is over 50%, *Westpac* will also seek a registered charge over livestock or crop lien to support the loan.

Where lending is against livestock security, *Westpac* will lend up to 60% of the market value (as assessed by *Westpac*) of dairy livestock and 50% of market value of other classes of livestock.

### *Currency Insurance*

Insurance against exchange rate risk. Premium paid for right to buy/sell an amount of NZD at an agreed exchange rate on an agreed future date.

## (ii) Finance Companies

### *GE Finance and Insurance:*

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GE Finance and Insurance 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. Payment structure can be tailored to meet 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. Payment structure can be tailored to meet 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 there are three options:  
Return asset with no residual obligation.

Upgrade to new asset under a new Operating Lease.

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.

#### Insurance Premium Funding

Description: A method of short term lending that allows the spreading of the cost of the business insurance premiums, including ACC, to suit cash flow.

Amount: Available to businesses with an annual premiums of \$5,000 or more.

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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.

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### (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.

Available for land purchase; significant farm development, plant and machinery purchases; refinance of existing or family debt; agricultural diversification.

Offering competitive rates; terms of up to 3 to 5 years with review and rollover; interest only (flat) or reducing loans available; flexible terms.

#### *Wrightson Financial Services Limited:*

Wrightson has a wide range of finance packages designed to assist farmers with their seasonal funding requirements. They are for periods of up to 12 months, but are renewable on satisfactory performance.

**Grain Package** – A farmer with a Wrightson Limited crop contract can fund the crop input costs, matching expense payment with crop proceeds. Crop security is usually sufficient.

**Livestock Package** – The livestock package is available to fund up to 100% of the purchase price of livestock, trading or capital. Additional security is not always required.

**Calf Rearing Package** – The calf rearing package is available to fund the input costs for rearing calves, with the loan facility accommodating the calf cost, and most of the rearing expenses. Security required is limited to a contract to sell the calves back through Wrightson.

**Seasonal Loan** – The seasonal loan is for funding of short term farming activity that is not catered for by the packages.

**Revolving Credit Facility** – A more flexible package catering for a broad range of seasonal requirements, and is reviewed annually.

**Flexi-Pay** – A revolving facility for up to \$60,000, offering the ability to defer Wrightson purchases to match cash flow.

**Fees** – No set up fees, no facility or maintenance fees, no early repayment fees.

**Wrightson American Express Cards** – A charge card facility with associated bonus point system on most purchases and sales through Wrightson.

#### **(iv) Trust Companies**

##### *Guardian Trust:*

This company offers both floating and fixed interest rate mortgages secured by farmland 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.

##### *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 \$5m.

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)

<b>Interest Rate</b>	<b>5</b> \$ p.m.	<b>10</b> \$ p.m.	<b>15</b> \$ p.m.	<b>20</b> \$ p.m.	<b>25</b> \$ p.m.
<b>6%</b>	19.33	11.10	8.44	7.16	6.44
<b>6.5%</b>	19.57	11.35	8.71	7.46	6.75
<b>7%</b>	19.80	11.61	8.99	7.75	7.07
<b>7.5%</b>	20.04	11.87	9.27	8.06	7.39
<b>8%</b>	20.28	12.13	9.56	8.36	7.72
<b>8.5%</b>	20.52	12.40	9.85	8.68	8.05
<b>9%</b>	20.76	12.67	10.14	9.00	8.39
<b>9.5%</b>	21.00	12.94	10.44	9.32	8.74
<b>10%</b>	21.25	13.22	10.75	9.65	9.09
<b>10.5%</b>	21.49	13.49	11.05	9.98	9.44
<b>11%</b>	21.75	13.77	11.37	10.32	9.80
<b>11.5%</b>	22.00	14.06	11.68	10.66	10.16
<b>12%</b>	22.24	14.35	12.00	11.01	10.53
<b>12.5%</b>	22.50	14.64	12.33	11.36	10.90
<b>13%</b>	22.75	14.93	12.65	11.72	11.28
<b>13.5%</b>	23.01	15.23	12.98	12.07	11.66
<b>14%</b>	23.27	15.53	13.32	12.44	12.04
<b>14.5%</b>	23.53	15.83	13.66	12.80	12.42
<b>15%</b>	23.79	16.13	14.00	13.17	12.81
<b>15.5%</b>	24.05	16.44	14.34	13.54	13.20
<b>16%</b>	24.32	16.75	14.69	13.91	13.59
<b>16.5%</b>	24.58	17.06	15.04	14.28	13.98
<b>17%</b>	24.85	17.38	15.39	14.67	14.38
<b>17.5%</b>	25.12	17.70	15.75	15.05	14.78
<b>18%</b>	25.39	18.02	16.10	15.43	15.17
<b>18.5%</b>	25.67	18.34	16.47	15.82	15.57
<b>19%</b>	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)

<b>Interest Rate</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>
	<b>\$ p.q.</b>				
<b>6%</b>	58.25	33.43	25.40	21.55	19.38
<b>6.5%</b>	58.97	34.20	26.22	22.43	20.30
<b>7%</b>	59.70	34.98	27.06	23.33	21.25
<b>7.5%</b>	60.43	35.76	27.91	24.24	22.22
<b>8%</b>	61.16	36.56	28.77	25.17	23.21
<b>8.5%</b>	61.90	37.37	29.65	26.11	24.21
<b>9%</b>	62.65	38.18	30.54	27.07	25.23
<b>9.5%</b>	63.40	39.01	31.44	28.04	26.27
<b>10%</b>	64.15	39.84	32.36	29.03	27.32
<b>10.5%</b>	64.91	40.68	33.28	30.03	28.38
<b>11%</b>	65.68	41.54	34.23	31.05	29.46
<b>11.5%</b>	66.45	42.40	35.18	32.08	30.55
<b>12%</b>	67.22	43.27	36.14	33.12	31.65
<b>12.5%</b>	68.00	44.15	37.11	34.17	32.76
<b>13%</b>	68.78	45.03	38.09	35.23	33.89
<b>13.5%</b>	69.57	45.93	39.09	36.31	35.02
<b>14%</b>	70.37	46.83	40.09	37.39	36.16
<b>14.5%</b>	71.16	47.74	41.11	38.48	37.32
<b>15%</b>	71.97	48.66	42.13	39.59	38.47
<b>15.5%</b>	72.77	49.59	43.16	40.70	39.64
<b>16%</b>	73.59	50.53	44.21	41.82	40.81
<b>16.5%</b>	74.40	51.47	45.26	42.95	41.99
<b>17%</b>	75.22	52.42	46.32	44.08	43.18
<b>17.5%</b>	76.05	53.38	47.38	45.23	44.37
<b>18%</b>	76.88	54.35	48.46	46.38	45.56
<b>18.5</b>	77.72	55.32	49.54	47.53	46.76
<b>19%</b>	78.56	56.30	50.63	48.69	47.97

### **(iii) Annual Payments**

(Annual Payments on Amortised Loans).

The annual pay ment (interest and principal com bined) 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)

<b>Interest Rate</b>	<b>5</b> \$ p.a.	<b>10</b> \$ p.a.	<b>15</b> \$ p.a.	<b>20</b> \$ p.a.	<b>25</b> \$ p.a.
<b>6%</b>	237.40	135.87	102.96	87.18	78.23
<b>6.5%</b>	240.64	139.11	106.36	90.76	81.99
<b>7%</b>	243.89	142.38	109.79	94.39	85.81
<b>7.5%</b>	247.17	145.69	113.29	98.10	89.72
<b>8%</b>	250.46	149.03	116.83	101.85	93.68
<b>8.5%</b>	253.77	152.41	120.43	105.68	97.72
<b>9%</b>	257.09	155.82	124.06	109.55	101.81
<b>9.5%</b>	260.44	159.27	127.75	113.48	105.96
<b>10%</b>	263.80	162.75	131.47	117.46	110.17
<b>10.5%</b>	267.18	166.26	135.25	121.49	114.43
<b>11%</b>	270.57	169.80	139.07	125.58	118.74
<b>11.5%</b>	273.98	173.38	142.92	129.70	123.10
<b>12%</b>	277.41	176.98	146.82	133.88	127.50
<b>12.5%</b>	280.85	180.62	150.76	138.10	131.94
<b>13%</b>	284.31	184.29	154.74	142.35	136.43
<b>13.5%</b>	287.79	187.99	157.76	146.65	140.95
<b>14%</b>	291.28	191.71	162.81	150.99	145.50
<b>14.5%</b>	294.79	195.47	166.90	155.36	150.08
<b>15%</b>	298.32	199.25	171.02	159.76	154.70
<b>15.5%</b>	301.85	203.06	175.17	164.20	159.34
<b>16%</b>	305.41	206.90	179.36	168.67	164.01
<b>16.5%</b>	308.98	210.77	183.57	173.16	168.71
<b>17%</b>	312.56	214.66	187.82	177.69	173.42
<b>17.5%</b>	316.16	218.57	192.10	182.24	178.16
<b>18%</b>	319.78	222.51	196.40	186.82	182.92
<b>18.5%</b>	323.41	226.48	200.73	191.42	187.69
<b>19%</b>	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 a 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		\$213.00
Round Troughs – cattle and sheep- with internal fittings and cover		
130 type (585 litres) 1.480m diameter x 434mm deep		\$258.00
200 type (900 litres) 1.93m diameter x 380mm deep		\$289.00
Round Troughs – dairy cattle types - with internal fittings and cover		
300 type (1360 litres) 2.02m diameter x 620mm deep		\$416.00
Calf Troughs		
585mm x 380mm x 230mm deep		\$57.00
Deer Troughs Round - with covers		
20 type (90 litres) 815mm diameter x 370mm high		\$145.00
40 type (180 litres) 1.12m diameter x 380mm high		\$197.50
Pig Troughs		
915mm long x 405mm wide x 230mm deep		\$97.00
1.37m long x 405mm wide x 230mm deep		\$101.00
1.83m long x 405mm wide x 230mm deep		\$112.00
Cover for the above		\$46.00
Dog Bowls - 300mm diameter x 150mm deep		\$17.60

##### *Humes:*

	Weight	Price
Rectangular troughs: (includes cover)		
RB 200/300/400	280kg/366kg/525kg	\$114.58/\$132.14/\$172.48
Round troughs: (includes cover)		
CB 100/150/500	235kg/278kg/470kg	\$96.74/\$116.67/\$190.36
CB 750/1000	680kg/854kg	\$217.44/\$281.34
CB 1500/2500	1034kg/1474kg	\$306.49/\$447.44
Fittings Required:		
Trough Valve	15mm/20mm/25mm	\$15.95

Top Elbow	20mm/25mm	\$2.60/\$3.10
Ball Float	110mm/150mm	\$3.003.75

Troughs 1000 litres and larger are fitted with 25mm fittings as standard.

### 2.18.3 Tanks

#### Plastic

##### *Devan Plastics:*

Litres	Gallons	Height (m)	Width (m)	Price (coloured)	Price (black)
25000	5500	3	3.5	NI\$2,395 / SI\$2,250	NI\$2,195 / SI\$2,100
13650	3000	2	3.5	NI\$1,995	NI\$1,800
4550	1000	2	1.9	NI\$1,195 / SI\$1,195	NI\$1,100 / SI\$1,100

NI = North Island price. SI = South Island price.

##### *Humes: Skellerup Rotomould*

Size	Black
500 litre	\$210.60
750 litre	\$260.28
1,000 litre	\$318.63
2,000 litre	\$504.50
3,000 litre	\$642.58
5,000 litre	\$951.53
7,500 litre	\$1,336.93
10,000 litre	\$1,748.27
25,000 litre	\$2042.50 including freight
30,000 litre	\$2,203.75 including freight

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	\$2,300.00
25,000	(5000)	3.42	2.28/2.74	\$2,511.00

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	\$780
4,550	1.90m	\$1,212
11,365	2.40m	\$1,790
15,910	1.80m	\$2,600
23,660	2.72m	\$2,749

## 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	\$3,950
11,200	2.80	2.00	\$3,260
8,640	2.40	2.00	\$2,890
4,830	2.00	1.80	\$2,410
2,800	1.80	1.20	\$1,770

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 so are reservoir linings (used to prolong the life of an existing tank) which are custom-made for all tanks and reservoirs - wooden, concrete, or steel.

## 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

#### *Fosters Outdoor Power Equipment Ltd:*

Water pumps petrol powered

3.5 to 7.5 cm (1.5" to 3") including fire pumps \$844.44 to \$1,955.56

#### *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 W	20 to 40 psi	AP 50 tank	\$1,159
JJ600	1100 W	20 to 50 psi	AP 50 tank	\$1,279
OJ700	1500 W	20 to 70 psi	AP 80 tank	\$1,945
OJ800	2400 W	30 to 75 psi	SR 60 tank	\$3,195
Deep Well – add the following to the above pumps: 4/5/6" deep well injectors				\$310/\$345/\$420

General Purpose Water Transfer

Hi Flow Self Priming Moulded Centrifugal Pumps

Models	415	750 watt	31psi	240v	\$445
	112	1100 watt	37psi	240/415v	\$725/\$755
	143	2400 watt	60psi	240/415v	\$1,190/\$1030

Irrigation

Blazemaster Single Impeller B55H Honda 6x160 5:5hp 200l/min at 37m head	\$1,220
Blazemaster Twin Impeller BM65H Honda 6x200 6.5hp 200l/min at 41m head	\$1,480
ES 10hp Diesel, Electric Start 200l/min at 54m head, 100l/min at 64m Head	\$6,750

*McNeill Drilling Co Ltd: (Grundfos Pumps)*

High Pressure Multi Stage – Farm Reticulation

	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
CR16-60	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
CR8-60 PT75	2.2	60 metre (85psi)	180	\$4,382

General Purpose Transfer Pump

CH2-40L	0.39	36 metre (50psi)	18	\$491
CH4-40L	1.05	30 metre (40psi)	36	\$614
CH8-60L	1.41	45 metre (65psi)	65	\$1,411

Domestic Pumps

MQ3-35	0.58	25 metre (35psi)	40	\$608
MQ3-45	0.67	32 metre (45psi)	40	\$685

JPF2 PC	0.44	30 metre (40psi)	17	\$485
JPF4 PT18	0.75	35 metre (50psi)	42	\$572
<b>Submersible Pumps</b>				
SQ2-70	0.80	65 metre (90psi)	34	\$1,470
SQ7-40	1.60	58 metre (82psi)	120	\$2,243
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
<b>Drainage Waste Pumps</b>				
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
<b>Pressure Tanks</b>				
Tank	Capacity (litres)	Maximum working pressure		Price
PT18	18	550		\$142
PT75	75	550 free standing		\$453
PT121	121	690 free standing		\$736
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	\$900
Hydra-Cell D03 Brass Head	up to 9 litre per min up to 1200 psi	\$1,700
Hydra-Cell D10 Cast Iron Head	up to 30 litre per min up to 1000 psi	\$2,200
Hydra-Cell G10 Cast Iron Head	up to 30 litre per min up to 1200 psi	\$2,200
Hydra-Cell H25 Cast Iron Head	up to 76 litre per min up to 1000 psi	\$5,900
Hydra-Cell D35 Cast Iron Head	up to 140 litre per min up to 1200 psi	\$8,800

**(ii) Rampumps**

**Williamson Ram Pumps 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

**(iii) Windmills**

**Ferguson Windmills Company** (prices ex works January 2003)

1.8m complete windmill (includes fan, standard mast, pump, accessories)	\$1800
Extension mast and accessories	\$408

## 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 pipefittings etc. Chopper pumps 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 pumps 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 pumps in the above sizes add \$397.

### *Ecostream Irrigation:*

PTO Effluent Pump c/w suction hose, suction screen fitted with bypass connection, primer, primer reservoir, 80 mm discharge, PTO shaft, pressure and vacuum gauges fully assembled.	\$5,995
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## Dairy Shed Effluent Disposal Equipment

### Effluent Sumps

#### *Ecostream Irrigation:*

Ecostream self cleaning effluent sump 2900 litre (average herd size) includes sump, mesh cover, pump mounting brackets and debris basket	\$1,895 - \$2,995
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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.	\$6,495 - \$8,995
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, BSPT fittings or MDPE Hose tail options)

Ecostream No Block effluent hydrant 1 way (used at end of pipeline)	\$145
Ecostream No Block effluent hydrant 2 way (connection within a pipeline)	\$300
Ecostream No Block effluent hydrant 3 way - straight (tee in a pipeline)	\$420
Ecostream No Block effluent hydrant 3 way - triangular (tee in a pipeline)	\$420
Ecostream No Block effluent hydrant 4 way (used at a cross in a pipeline)	\$540
Ecostream hydrant adaptor complete with camlocks	\$100

**Effluent Irrigators**

*Numedic:*

ADCAM750 Travelling Irrigator. Adjustable cam with 7 different speeds.	\$3595
Stationary Irrigator. Ideal for steeper farms, adjustable riser pipe.	\$1625

*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 and 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

*Anderson and Rooney:*

Travelling Irrigators - Effluent or fresh water irrigation

Spitfire mk VIII	runs 50m wide 400m long	\$7,850
LP25 Pluck	runs 25m wide 200m long	\$3,200
LP30 Pluck	runs 30m wide 300m long	\$3,700

**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/\$270
10 inch (250mm) / 12 inch (300mm)	\$350/\$410

Developing charged at \$135 per hour. Com pressing and test pum ping f or 150mm and 200mm charged at \$135 per hour. Com pressing and test pum ping for 250mm and 300mm charged at \$150 per hour. Install telescoped casing f or 250mm or 300mm well if applicable, charged at \$150 per hour. All prices include drilling and steel pipe. Stainless steel screens are normally fitted, and range in price f rom \$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 Pipes and Fittings

*Hansen Products (N.Z) Ltd:*

Polythene Pipe Fittings:

Coupling (HS)	15mm to 50mm	\$4.72 to \$25.76
Reducing couplings (HRS)	20x15mm to 50x40mm	\$6.12 to \$25.76
Long repair coupling (HLS)	15mm to 25mm	\$6.05 to \$9.30
Female couplings (HFS)	15mm to 50mm	\$5.28 to \$19.12
Reducing female couplings (HRFS)	20x15mm to 50x40mm	\$6.12 to \$19.12
Male couplings (HMS)	15mm to 50mm	\$4.19 to \$18.98
Reducing male couplings (HRMS)	20x15mm to 25x20mm	\$5.66 to \$6.22
Bends (HB)	15 to 50mm	\$10.07 to \$40.28
Female bends (HFB)	15mm to 50mm	\$11.23 to \$27.60
Female reducing bends (HRFB)	15x20mm to 50x40mm	\$11.23 to \$27.60
Male bends short (HMBS)	15mm to 25mm	\$10.64 to \$15.76
Male bends long (HFB)	15mm to 50mm	\$11.23 to \$27.60
Reducing male bends (HRMB)	15x20mm to 20x25mm	\$12.42 to \$14.77
Tees (HT)	15mm to 50mm	\$9.05 to \$49.07
Reducing tees (HRT)	15x20x15mm - 50x40x50mm	\$10.75 to \$49.07
Female tees (HFT)	15mm to 50mm	\$11.40 to \$48.93
Male tees (HMT)	15x20x15mm - 50x20x20mm	\$8.30 to \$10.00
Bracket elbow (HBE)	15mm to 20mm	\$9.90 to \$13.17
Hex plug (HSP)	8ml	\$1.02
Reducing bush (SRB)	25x10mm	\$2.40
Hex nipple (HRHN)	6mm to 8mm	\$1.18
Reducing hex nipple (SRHN)	15x8mm to 100x80mm	\$1.38 to \$34.42

*MICO Pipelines: PVC Pressure pipe, metric pipe series (available in 6m lengths).*

PN 6 - Red print					
Size (mm)	Socketed one end		Size (mm)	Rubber ring joint	
40 to 65	\$34.78 to \$69.07		80 to 125	\$111.37 to \$235.55	
100	\$148.78		150 to 200	\$306.89 to \$554.77	
PN 9 – Blue print					
50 - 65	\$58.21 - \$86.50	50 - 100	\$61.95 - \$147.25	125 - 200	\$322.58 - \$759.00
PN 12 – Green print					
32 to 50	\$36.63 to \$70.95		50 to 100	\$75.20 to \$194.05	
65 to 100	\$100.91 to \$194.03		125 to 200	\$428.62 to \$1035.60	
PN 15– Brown print					
15 to 40	\$13.82 to \$55.26		50 to 100	\$92.15 to \$333.52	
50 to 100	\$87.92 to \$326.81		125 to 200	\$519.04 to \$1413.00	

*MICO Pipelines: Novakey PVC Pressure Pipe Fittings*

Size	Plain 90° Elbow	Formed 90° Bend
15 mm to 32 mm	\$2.42 to \$8.33	\$2.80 to \$9.43
40 mm to 80 mm	\$6.50 to \$24.05	\$15.76 to \$45.88
100 mm to 125 mm	\$67.12 to \$469.46	\$70.68 to \$253.71
150 mm to 200 mm	\$739.27 to \$964.20	\$305.39 to \$660.00

### Low Density Polyethylene Pipe

Coil Length	Pipe size					
	15mm	20mm	25mm	32mm	40mm	50mm
25m	\$13.18	\$24.63	\$30.80	\$37.93	-	\$61.59
50m	\$26.32	\$49.29	\$61.59	\$75.83	\$93.59	\$123.19
100m	\$52.62	\$98.54	\$123.19	\$151.67	-	\$264.38
200	\$105.24	-	\$246.38	\$303.36	\$374.34	-

### Medium Density Polyethylene Pipe (Redline)

Coil Length	Pipe size					
	20mm	25mm	32mm	40mm	50mm	63mm
50m	\$33.24	\$46.64	\$57.13	-	\$118.92	\$199.51
100m	\$66.46	\$93.27	\$114.28	\$151.58	\$237.85	\$359.11
200m	\$132.92	\$186.55	\$228.54	\$303.16	\$475.71	-

### Flexible Medium Density Polyethylene Pipe (Greenline)

Coil Length	Pipe size					
	20mm	25mm	32mm	40mm	50mm	63mm
50m	\$29.86	\$39.46	\$49.05	\$59.71	\$92.25	\$140.74
100m	\$59.71	\$78.92	\$98.11	\$119.43	\$184.46	\$281.50
200m	\$119.43	\$157.83	\$196.20	\$238.85	\$321.84	\$563.00

### Horticultural Lateral Tube. (Maximum working pressure: 3.1 bar/310kpa/45psi)

Coil Length	Pipe size			
	13mm	16mm	19mm	25mm
100m	\$41.73	\$49.35	\$64.51	\$83.85
400m	\$166.94	\$197.32	\$193.49(300m)	\$167.70(200m)

### Effluent Pipe. Medium density polyethylene pipe.

Coil Length	Pipe size		
	63mm	75mm	90mm
50m	\$184.31	\$385.00	\$524.10
100m	\$368.82	\$770.00	\$1047.90

### 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	\$10.75/\$15.31/\$21.95/\$33.49/\$42.95/\$68.30
15mm/20/25/32/40/50mm	
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	\$8.17	\$13.73	\$45.38
M & F Bend	\$6.27	\$9.68	\$28.09
90 <sup>0</sup> Elbow	\$7.38	\$12.22	\$36.42
Plug	\$1.51	\$3.17	\$9.60
Barrel Piece	-	\$4.01	\$6.93
Galvanised and black malleable fittings:			
Elbows - banded equal	\$1.92	\$2.57	\$7.70
- banded reducing	\$2.52	\$2.82	\$8.98
- banded 45 <sup>0</sup>	\$2.14	\$2.65	\$8.55
Tees - banded equal	\$2.65	\$3.51	\$10.27
- banded reducing	\$4.02	\$4.02	\$11.98
Plugs	\$1.28	\$1.45	\$3.68
Ball Valves - chrome on brass, lever handle (1710)	\$11.68	\$18.40	\$67.22
- chrome on brass, T handle (male/female)	\$12.83	\$19.22	-

*Jobe Valves Ltd:*

Reservoir Valves - Megaflow

Drop	20 mm	25 mm	32 mm	50mm
100 mm differential	\$67.00	\$77.00	\$87.00	\$170.00
300 mm differential	\$77.00	\$87.00	\$97.00	\$180.00
600 mm differential	\$87.00	\$97.00	\$107.00	\$190.00

Trough valve - Megaflow	20 mm	25 mm	32 mm
Side and bottom entry	\$23.75	\$24.25	\$27.60
Topaz Megaflow top, side or bottom entry	\$29.75	\$30.75	\$35.00
Tank water level indicator (complete)			\$95.00

Trough valve – Rojo float	15 mm	20 mm
Side, bottom and top mounting	\$15.95	\$15.95

### 2.18.8 Rural Domestic and Stock Water Supply Charges

Note: These prices are all inclusive of GST.

***Buller District Council***

\$236.00 for the first 550 cubic metres, 56 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 - \$121.20 to \$493.20
- per serviceable property - \$60.60 to \$246.60

### ***Hauraki District Council***

An annual charge of \$60.00 for each water meter. A charge of \$0.70 to \$0.80 for each cubic metre of water supplied depending on the area and the amount supplied.

### ***Kaikoura District Council***

\$0.45 cents per cubic metre of water used.

### ***New Plymouth District Council***

Residential properties within town – annual water charge of \$188.00 included in the rates account.

Properties on a metered water system – 69 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	\$0.000195 to \$0.000324 (CV) for primary industry	
For Other Water Supplies:	Full charge	\$170 to \$550
	Half charge	\$85 to \$275

### ***Ruapehu District Council***

Extraordinary users that are metered will be charged \$1.26 to \$1.62 per cubic metre supplied, with a minimum charge of \$216 to \$532 per annum.

Extraordinary users that are un-metered will pay an annual charge relating to land use.

Lifestyle blocks less than 25ha	\$338
Dry stock farms	\$787
Dairy farms less than 85ha	\$915
Dairy farms greater than 85ha	\$1,043

Ordinary users will pay an annual charge varying from \$195 to \$480.

### ***Tasman District Council***

All metered connections excluding Motueka township and major industrial usage:

- 15 cents per calendar day plus 55 cents per cubic meter of water supplied.

Industrial metered connections:

- 28.9 cents per cubic metre of water supplied

Connections using a low flow restricted supply: \$115.00 per annum for each unit.

Rural connections vary from \$60 to \$415 per unit of water supplied

### ***Waikato District Council***

Water supply charges vary depending on location. It is either from 1 cent per m<sup>3</sup> for the first 250m<sup>3</sup> to 75 cents per m<sup>3</sup> for 251m<sup>3</sup> to 2250m<sup>3</sup>, or a flat rate of 65 cents per m<sup>3</sup>.

### ***Waitaki District Council***

Water supply charges vary according to location. Supply per unit varies from \$111 to \$348. Metered supply per m<sup>3</sup> varies from \$0.185625 to \$0.65.

### ***Waitomo District Council***

Metered supply is charged at 78 cents per cubic metre in Te Kuiti, Mokau, Benneydale and Piopio.

## **2.18.9 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	0 to \$350	n/a
Other Consents	\$350	Based on actual costs
Minor administrative changes or cancellations of Consent conditions	\$350	n/a
Other changes or cancellations of Consent conditions	\$350	Based on actual costs
Review of conditions as specified in Resource Consents	\$350	Based on actual costs
Transfer a Consent to another site	\$350	Based on actual costs
Transfer of resource Consent to new owner/occupier	\$40	n/a
Certificate of Compliance Bore sealing	No charge	
Other	\$250	n/a
Applications for land use consents to burn vegetation where the activity is classified as permitted in any proposed regional plan.		Nil

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

Examples of compliance monitoring fixed charges are:

- Land Use Consent for a culvert – no charge
- 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

## Consent Application Deposits

(GST included) from another North Island Regional Council.

Type of Activity	Controlled Activity	Discretionary/ Non-Complying Non-Notified	Discretionary/ Non-Complying/ Notified
Take water/Dam water/Divert groundwater	n/a	\$1,000	\$2,500
Land use consent sediment control for earthworks and quarries	\$1,500	\$2,000	\$2,500
Stormwater discharge	\$1,000	\$1,500	\$3,000
Surface water diversion	\$1,000	\$1,500	\$3,000
Coastal works/use/activity	\$1,000	\$1,000	\$3,500
Works in the bed of a lake/river	\$1,000	\$1,000	\$2,500
Land use consent to drill or alter bore	\$220	n/a	n/a
Discharge of sewage (households only)	n/a	\$2,000	\$3,500
Discharge of sewage, wastewater, other contaminants	N/a	\$2,500	\$5,000
Discharge contaminants from industrial or trade process	n/a	\$1,000	\$2,500
Contaminated sites and landfills	n/a	\$5,000	\$5,000
Farm dairy discharge	\$750	\$800	\$1,600
Transfer consent to another site	\$500	\$500	\$1,000
Extension of non-exercised lapsed consent	\$500	\$500	\$1,000
Change or cancel consent conditions	\$1,000	\$1,000	\$2,000
Discharge odour to air	n/a	\$15,000	\$15,000
<b>Further Fixed Charges</b>			
Hearing committee or commissioner(s) (per day or part thereof) deposit fee.			\$2,000

## Staff and Consultants Hourly Charge Rates (*Environment Canterbury*)

Policy is now for full cost recovery, so fixed charges no longer apply in most cases.

(Charges include GST)

Consents Investigating Officer	\$84.38	\$75.00
Compliance Monitoring Officer	\$78.75	\$70.00
Advisory Officer	\$73.13	\$65.00
Consents Administration Officer	\$50.63	\$45.00
Consents Administration Officer (Hearings)	\$78.75	\$70.00
Specialist and Senior Consents Officers	\$95.63	\$85.00
Management Staff	\$101.25	\$90.00

## 2.18.10 Irrigation Equipment - Pastoral and Horticultural

*Rainer Irrigation Ltd:*

### Travelling Irrigators

Briggs Model 200 Roto Rainer and Hose Trailer (Standard)	\$36,586
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Briggs Model 250 Roto Rainer and Hose Trailer (Standard)	\$43,998
Briggs Model 250 Linear Rain Turbine Drive and Hose Trailer (Standard)	\$54,858
Briggs Model 125 Roto Rainer and Hose Trailer (Standard)	\$34,577
Briggs Model 100 Roto Rainer and Hose Trailer (Standard)	\$26,213
Briggs Model 25 Roto Rainer and Hose Trailer (Standard)	\$18,650
Briggs Model 25 Trailer	\$4,800
Briggs Model 10 Roto Rainer Standard (Effluent Irrigator)	\$3,300
Briggs Model 10 Hose Trailer	\$4,800
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	\$17.50 to \$26.50 per metre
89mm to 100mm	\$32.50 to \$39.50 per metre
114mm to 125mm	\$48.00 to \$52.00 per metre

<b>Underground Mainline (PVC pipes)</b>	Class B (per metre)
80/100/125/150/175/200mm	\$6.20/\$6.88/\$9.52/\$12.58/\$17.25/\$21.00

Hydrant outlets cost \$200 to \$350 each. Trenching and laying costs \$2.00 to \$3.30 / 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	\$2,271
SX 20	38 mm x 67 m hose and sprinkler	\$3,416
SX 30	50 mm x 100 m hose and sprinkler	\$9,002
TX 250	75 mm x 150 m hose and gun	\$21,917
TX 350C	89 mm x 200 m hose and gun	\$27,151
TX 550	100 mm x 200 m hose and gun	\$40,290
TX 550	115 mm x 200 m hose and gun	\$41,726

## Hoses

Angus Hose	44 mm to 75 mm (black)	\$13.77 to \$29.04 per metre
	100 mm to 150 mm (black)	\$45.04 to \$69.81 per metre

## Sprinklers (each)

Naan	233 AF	11 to 62 litres per minute	\$38.25
	5035	11 to 42 litres per minute	\$19.25
	254	18 to 124 litres per minute	\$89.95

## Pump Units Complete with Motor and pressed steel base- 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
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*Taupo Engineering:* (North Island prices including freight)

Travelling effluent irrigator	150m of cable (3 mm cable)	\$3,177.00
Travelling water irrigator	150m of cable	\$3,505.00

*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

## 2.18.11 Irrigation Equipment - Horticultural

*Evergreen Horticulture and Hydroponics:*

Drippers For Lateral Pipe		
Button dripper 2/4/8/litres per hour		\$0.40
Junior woodpecker – pressure compensating 2/4/8 litres/hour		\$0.54
Regulated button dripper – pressure compensating 2/4/8 litres/hour		\$0.90
Driptape 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

*Water Dynamics / Tyco Flow Control Pacific Pty Ltd (AB Products Ltd):*

Driplines – Driptape		
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		\$16.40/\$35.00
1” Full circle impact sprinkler brass 23m radius		\$69.50
Hunter I31/PGP gear drive pop up sprinkler 19m/15m radius		\$139.15/\$59.80

<b>Irrigation Controllers</b>	
Orbit control star - 4 to 12 stations	\$348 to \$725
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
Hunter EC4/EC6 station controller with plug pack	\$180/\$220
Sterling control - 4 to 12 stations	\$1,380 to \$4,365
Sterling 12/24 station frost controller	\$1,675/\$2,745
SVC25m c/w SRV valve	\$245.00
<b>Filters – Plastic</b>	
20mm/25mm Amiad acetyl filter and screen	\$40.00/\$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	\$1,500 - \$2,000
<b>Filters – Steel</b>	
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
<b>Water Meters</b>	
50mm MT-EX-50	\$242
80mm to 150mm LXLG	\$435 to \$875
*0mm to 150mm IRT (Pulse)	\$970 to \$1,790
<b>Valves</b>	
Hunter 25mm Solenoid valve with F/C	\$62.00
Hunter PGV 40mm or 50mm Solenoid valve angle/globe	\$160/\$230
Hunter ICV 25mm to 50mm Solenoid valve c/w flow control	\$145 to \$320
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
<b>Fertigation</b>	
Mazzei injector models 283-584 c/w suction tube/strainer & valve	\$205 - \$259.60
Dosmatic advantage A20-20GPM/A30-30GPM	\$1,150/\$1,190
Amiad TMB injector 250 litre / 50 litre	\$2,995/\$1,200

*Permathene Ltd:*

**Permaliner Dam Liner**

300 micron	\$3.85 per m <sup>2</sup>
500 micron	\$6.60 per m <sup>2</sup>
750 micron	\$10.00 per m <sup>2</sup>
1000 micron	\$13.20 per m <sup>2</sup>

**2.18.12 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 2003/2004 season for community irrigation schemes in the South Island are as follows:

<u>Scheme</u>	<u>Charges</u>
<i>Amuri Irrigation Co:</i>	
- 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).	
<i>Ashburton-Lyndhurst Scheme:</i>	\$25 per ha per year, plus \$60 admin charge
<i>Mayfield-Hinds Scheme:</i>	\$25 per ha per year
<i>Morven, Glenavy and Ikawai Irrigation Co:</i>	
- Borderdyke	\$20 per ha for 1st 810 mm plus \$1.20/1000 m <sup>3</sup> over 810 mm
- Spray	\$12 per ha
<i>Lower Waitaki:</i>	\$11.00 per ha spray irrigation (on demand) \$27.50 per ha for borderdyke irrigation (16 day rotation)

### **2.18.13 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 of sites per location.

Dairy Pasture	\$560.25 per site (1 site) to \$412.20 per site (7 to 10 sites)
Arable-Horticulture	\$378.90 per site (1 site) to \$279.45 per site (7 to 10 sites)
Vineyards	\$564.30 per site (1 site) to \$422.10 per site (7 to 10 sites)

### **2.18.14 Border Dyke Irrigation**

#### *Rooney Earthmoving:*

#### Earthworks:

Earthworks only - \$1,350 per hectare or \$3,350 per hectare which includes the borders, headraces etc. This cost includes: All levelling, construction of levees, construction of supply and headraces.

#### Structures:

#### **Concrete Dams**

Depends on flow rate of water and will vary depending on water flow but average \$385.

#### **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
<hr/>	
Head walls for a 6m crossing, pipe diameter 750mm:	\$310 each
Concrete bridge crossing	\$2,990

### 2.18.15 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	\$3,300 per ha
Clay soils, mole drainage, no metal backfill	\$2,400 per ha
Silts (no moling), metal backfill	\$3,200 per ha
Silts (no moling or metal backfill)	\$2,300 per ha
Mole drainage	\$187.50 per ha
Difficult sites with poor outlet conditions or flat country may range up to	\$3,600 per ha

#### *Southtile Ltd.*: Field Tiles

Diameter (mm)	Length (mm)	Per unit for 100	Per unit for 500
75	300	\$1.00	\$0.84
100	300	\$1.00	\$0.84
125	300	\$1.51	\$1.26
150	300	\$2.17	\$1.80
190	300	\$3.25	\$2.71
100	600	\$2.29	\$1.92
125	600	\$3.32	\$2.76
150	600	\$4.76	\$3.96
190	500	\$7.17	\$5.83
225	500	\$10.77	\$8.98
Junction 'T'	75 x 75mm to 225 x 150mm		\$14.85 to \$23.50
Junction 'Y'	75 x 75mm to 225 x 150mm		\$14.85 to \$23.50

#### *MICO Pipelines:*

Farmtuff Extra - PVC culvert pipe, available in 3 and 5 metre lengths (prices may be discounted for volume).

Pipe Length	Pipe Size						
	110mm	160mm	200mm	250mm	315mm	400mm	500mm
3m	\$46.42	\$105.30	\$102.53	\$126.72	\$190.08	\$370.61	\$585.42
5m	\$58.40	\$125.81	\$162.72	\$211.20	\$316.80	\$588.30	\$929.60

Nexus Novaflo - land drainage system and Nexus Novacoil - unpunched

Coil length	65mm	110mm	160mm
15m	-	\$52.86	-
30m	\$79.85	\$105.70	-
45m	-	-	\$330.02
50m	-	\$176.18	-
100m	-	\$331.63	-
150m	\$318.82	-	-
200m	-	-	\$1466.40

Novaflow - land drainage system and Novacoil - unpunched

Coil length	65mm	110mm	160mm
15m	\$39.86	\$44.34	\$93.23
30m	\$73.82	\$88.69	-
45m	-	-	\$279.70
50m	-	\$140.39	-
100m	-	\$295.62	-

Nexus Hi-Way Drain, Heavy Duty Nexus Punched

Pipe length	110mm	160mm	200mm
5m	\$39.25	-	\$199.84
45m	-	\$741.53	-
100m	\$854.40	-	-

**Concrete Culvert Pipes**

*Cement Products:*

Diameter - 6 inch \$42.58 per metre

*Hynds Pipe Systems Ltd:*

610mm x 1.2metre	\$171.12
610mm x 400mm	\$64.17
610mm diameter lids	\$36.30
750mm x 900mm	\$177.46
90mm x 900mm	\$243.70
900mm x 1500mm (with floor)	\$266.20

**Backfill Gravel**

Canterbury supplier: (per tonne)

Crushed Stabiliser Metal Courses SAP 40 to SAP 20	\$7.72 to \$9.98
Crushed Metal Courses CAP 65 to CAP 20	\$4.52 to \$8.51
Transit Crushed Topcourse AP 20 to AP 65	\$5.51 to \$8.66
Drainage aggregates AP 40/GC 65-40/22-16/ 14-10/10-5	\$8.30/\$9.03/\$13.49 /\$13.49/\$16.64
Railway Ballast/Clay	\$10.50/\$20.16
Pit run/Boulders (large 7.5cm)	\$2.63/\$7.77
Sealing Chip GR 2SC20 to GR 5SC10/GR6Special SC5	\$16.64/\$19.53
Concrete Sand/ Fill Sand/ Natural NAP5/ Swale 2A sand	\$17.06/\$11.55/\$17.96/\$24.52

### **Aggregate Supply (tip truck delivery)**

*Higgins Concrete Ltd:* (Manawatu area)

Pea metal (minimum charge \$60 per load)	\$20.00
River run (minimum charge \$60 per load)	\$20.00
Gap 40 basecourse (minimum charge \$75 per load)	\$23.00

### **2.18.16 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**

<b>Major Capital Costs</b>	
Contractor to dig ponds	\$2,200
Land retired 0.15ha	\$1,650
Fencing	\$900
Pipework	\$900
Sealing liner (if required)	\$3,300
Sump, pump and electric controls from farm dairy (if required)	\$11,550
<b>Total</b>	<b>\$20,500</b>

#### **Annual Operating Cost**

Weed spraying	\$150
Minor repairs and maintenance	\$200
Desludging every year	\$1,000
<b>Total</b>	<b>\$1,350</b>

#### **Two Pond System**

##### **Major Capital Costs**

Contractor to dig ponds	\$4,400
Land retired 0.2ha	\$2,200
Fencing	\$1,100
Pipework	\$1,000
Sealing liner (if required)	\$6,600
Sump, pump and electric controls from farm dairy (if required)	\$11,550
<b>Total</b>	<b>\$26,850</b>

##### **Annual Operating Cost**

Weed spraying	\$200
Minor repairs and maintenance	\$250
Desludging every three years (annual cost)	\$700
<b>Total</b>	<b>\$1,150</b>

#### **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 (excludes installation).

### **Major Capital Costs**

Holding Pond	\$2,000
Pump Float	\$1,000 to \$1,500
Effluent Sump	\$4,500
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	\$750
Repairs and maintenance	\$900
Electricity	\$600
Depreciation 10 to 20 year life	\$1,400
<b>Total</b>	<b>\$3,650</b>

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

*Source: Grant Titchiner, EcoStream Irrigation, December 2003.*

### **2.18.17 Septic Tanks**

#### **Concrete**

*Cement Products Ltd:*

2700/3300 litre (with filter) \$1,388.00

*Hynds Pipe Systems Ltd: SD number denotes CCC standard drainage-unit sheet number*

Z5000 with Zabel filter plus plumbing (no pump or electrics)	\$1,778
Septic Tank 3300 litre 2600 l x 1240 w x 1830 d (without Zabel filter)	\$1,045
Septic Tank 3300 litre as above - with partition (without Zabel filter)	\$1,210
Septic Tank 5200 litre - 2 Chamber (without Zabel filter)	\$1,270
Zabel Filter	\$496
Pumping chamber	\$446
Septic closet – McKendry Patent	\$533
Septic closet lids - 3 to set	\$166
Sludge tank - 2140mm x 925mm x 1115mm	\$533
Septic tank lids 450mm x 990mm or 650mm x 915mm	\$52.50
Silt trap/grease trap 175 litre/500 litre	\$339/\$618
Corner single sump S.D. 327 to 400 square x 1000 mm height maximum	\$132
Enlarged single sump S.D.322 to 450 pipe only	\$313
Master trap S.D. 374 including lid (excludes cast iron cover and frame)	\$2,040
Flush manhole and lid S.D. 312	\$1,282

## 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	\$5.85
Netting	8/36/12 S.S.H.T., A8-900-300	\$7.15
Electric	post per 10m, 5 wire	\$3.60 to 3.75
Deer	13/75/12, A13-1900-300	\$10.50
	11/61/12, A11-1550-300	\$11.00 to \$15.00

**Medium Hill Country:** 8 wire, post per 7 m, wire droppers \$8.95 to \$10.50

#### (ii) Labour Only

Fencing contractors charge out at around \$20 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 \$1.20 to \$1.75 on easy land and \$2.00 to \$2.50 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	\$2.80 to \$3.00 per metre
Deer Fencing	\$2.80 to \$3.00 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 \$5.60 per metre

Erection cost \$4.50 (average) Range \$4.00 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

## 2.19.2 Guide to Electric Fencing Costs

### Cost of Materials for Electric Fences:

*Gallagher Ltd:*

5 wire fibreglass fence on undulating to hill country, using one 13mm rod and three 10mm rods per 16 metre	Cost per km = \$2,285
5 electric wire, batten and insulator fence on undulating to hill country at 5 metre spacing	Cost per km = \$1,809
5 wire (electric) insul timber fence on undulating to hill country. 1 post and 3 droppers per 16 metres.	Cost per km = \$1,863

**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	\$2.02 per metre
Erection costs	\$3.00 to \$3.50 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 @	\$19.11	\$1,528.80
Strainers 3.3m x 175mm	3 @	\$45.97	\$137.91
Stays 2.7m x 125mm	3 @	\$15.44	\$46.32
Stay blocks 200mm x 50mm x 0.5m	3 @	\$7.70	\$23.10
2.5mm HISPAN V wire (648m coil)	1 @	\$63.00	\$63.00
A13-1900-150 deer netting (100m roll)	4 @	\$278/100m	\$1,112.00
Gate 3.66 x 1900mm	1 @	\$190	\$190.00
Staples 4mm	12 kg @	\$27.39/5kg	\$65.74
Gudgeons lock through post	1 @	\$20.00	\$20.00
Gudgeon through post	1 @	\$13.85	\$13.85
Gate fastener and staples	1 @	\$7.70	\$7.70

per 400 metres

\$4,579.57

Cost per metre for materials (excluding labour)

**\$11.45**

#### (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 @	\$19.11	\$573.30
Droppers 1070mm x 40mm x 50mm	100 @	\$1.35	\$135.00
Strainers 3.3m x 175mm	9 @	\$45.97	\$413.73
Stays 2.7m x 125mm	9 @	\$15.44	\$138.96
Stay blocks 200mm x 50mm x 0.5m	9 @	\$7.70	\$69.30
2.5mm H.T. wire (1 coil = 648m)	9.4 coils @	\$63.00	\$592.20
Plastic strain insulators	48 @	\$0.67	\$32.16
Joint Clamps	24 @	\$1.05	\$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 @	\$27.39/5kg	\$10.96
Gudgeons lock through post	4 @	\$20.00	\$80.00
Gudgeons through post	4 @	\$13.85	\$55.40
Gate fasteners and staple	4 @	\$7.70	\$30.80
	cost per 1000 m		\$2,939.01
Cost per metre (excluding labour)			<b>\$2.94</b>

*Fence Design B:*

Consists of 3 live wires above 800m m 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 @	\$19.11	\$573.30
Droppers 1.52m insultimber	100 @	\$6.00	\$600.00
Strainer posts 3.3 200mm	9 @	\$57.79	\$520.11
Stays 2.7m x 12mm	9 @	\$15.44	\$138.96
Stay blocks 200mm x 50mm x 0.5m	9 @	\$7.70	\$69.30
2.5mm H.T. wire (648m per coil)	4.7 @	\$63.00/coil	\$296.10
Wire netting (800mm x 300mm, 7 line)	1000m @	\$190/100m	\$1,900.00
Plastic strain insulators	24 @	\$0.67	\$16.08
Joint clamps	12 @	\$1.05	\$12.60
Cut-out switch	1 @	\$6.00	\$6.00
Gate breaks (flexible connectors)	4 @	\$4.00	\$16.00
Gates 3.66m x 1900m	4 @	\$197.03	\$788.12
Staples 4mm	3 kg @	\$27.39/5kg	\$16.43
	cost per 1000 m		\$4,953
Cost per metre (excluding labour)			<b>\$4.95</b>

### 2.19.3 Wire

(see also *Section 2.19.7 Wire Netting*)

#### *Cyclone:*

			\$ per 25kg coil
Flexspan: (mild steel)			
	3.15 mm (No. 9) 25 kg	408 metres	\$82.00
	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	\$63.00
	3.15 mm, 25 kg	408 metres	\$67.00
	4.00 mm, 25 kg		\$77.00
Barbed:			
Iowa pattern	75 mm spacings	225 metres	\$105.00
	150 mm spacings	255 metres	\$105.00
Reverse twist HT	RT 150 mm spacings	500 metres	\$125.00
	RT 100 mm spacings	500 metres	\$125.00

#### *Goldpine (ex Hurricane):*

Barbed wire standard 2.5mm,	75 and 100 mm	25kg coil	\$104.78
Reverse twist 1.6mm HTR	100 mm	25kg/500m coil	\$125.19
Lacing wire	2.0 mm	5kg	\$25.78
	1.6 mm	5kg	\$30.04

### 2.19.4 Posts/Strainers/Droppers/Battens/Stays

**Note:** Price discounts of up to 10% may be possible for bulk orders.

#### *Goldpine:*

Pointed Intermediate Round Wood-			
Half-Round	1.8m x 150		\$7.71
	1.8m x 175		\$10.12
Deer Halves	2.7m x 150		\$13.09
	2.7m x 175		\$15.54
Full Rounds	1.8m x 80		\$7.01
	1.8m x 100		\$9.37
	1.8m x 125		\$10.82
	1.8m x 150		\$12.56
Sheep Super Posts (pointed ¼ rounds)	1.8m x 100		\$8.43
	1.8m x 125		\$10.07
Deer Rounds	2.7m x 125		\$19.11
Deer Super Posts (pointed ¼ rounds)	2.7m x 100		\$13.42
	2.7m x 125		\$15.44
Strainers -			
Sheep	2.1m x 150		\$25.63
	2.1m x 175		\$30.13
	2.1m x 200		\$36.69

Deer	3.0m x 150	\$37.00
	3.3m x 150	\$39.97
	3.3m x 175	\$45.97
	3.3m x 200	\$57.79
Droppers/Battens -	1.07m x 50 x 40	\$1.35
	1.17m x 50 x 40	\$1.46

*Gallagher:*

Insultimber		
Post, No 1.	1520 x 38 x 38 mm	\$6.00
Post, No 2.	1380 x 38 x 38 mm	\$5.66
Droppers	940 x 38 x 26 mm	\$2.60
Clips standard and heavy duty		\$0.12

*Goldpine (ex Hurricane):*

BHP fencing standards (waratahs) 1.5m/1.65m/1.8m	\$6.98/\$7.54/\$8.19
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*Placemakers:*

100 x 75mm	1.8 / 2.4 / 2.7 / 3 m	\$7.99 / \$8.84 / \$12.40 / \$13.32 each
100 x 100mm	2.4 / 2.7 / 3 m	\$13.32 / \$15.10 / \$16.88 each
125 x 75mm	1.8 / 2.4 / 2.7 m	\$13.43/\$12.40 /\$13.77 each

*Hynds Pipe Systems Ltd:*

Concrete posts	Length	\$ each
Intermediate farm posts	1.83 m	\$16.50
Light/medium/heavy strainer	2.134 m	\$46.00/\$50.00/\$53.00
Stay posts	2.440 m	\$21.00
Stay blocks		\$7.70

**2.19.5 Gates**

**Electric Spring/Tape Gates**

*Gallagher:*

Insulgrip handle	\$2.14
Econo gate handle (black/white)	\$4.06
Gate handle, insulated (orange/white)	\$4.50
Spring gate kit complete with handle and insulator	\$11.775
Spring for gate kit (galvanised / white)	\$5.64/\$7.56
Gate, tape complete with handle and insulator	\$12.94
Gate, bungy kit complete with handle and insulator	\$13.21
Gate activator three way	\$4.54

*Beattie Insulators: (wholesale prices)*

Spring gate kit – white – 5 m/6.5 m	\$9.43/\$9.78
Tape gate kit - 5m	\$12.08
Heavy duty gate break	\$4.03

## Steel

### *Cyclone:*

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Farm Gates:		
Economy	3.05m to 4.27m	\$105 to \$117
Deer gates: 1.9m high	3.66m/4.27m long	\$215 to \$230

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### *Goldpine:*

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Farm Gates		Price
Economy	3.05m to 4.25m	\$89.14 to \$97.57
Cattle	3.05m to 4.25m	\$130.35 to \$161.85
Stock Master	3.66m to 4.25m	\$197.03 to \$198.40
Deer - 1.9m	3.05 to 4.25m	\$183.11 to \$189.49
- 1.55m	3.05 to 4.25	\$188.50 to \$189.49

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## 2.19.6 Cattle Stops

### *C & F Industries:*

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Type 50, 3.6m x 2.1m heavy duty	\$1,767
3.6m concrete surround	\$598

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## 2.19.7 Wire Netting

### *Placemakers:*

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Galvanised hexagonal wire netting 900 x 13mm x 22G / 900 x 50 mm x 19G	\$182.21 / \$97.77 per 50m roll
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### *Cyclone:*

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Twinlock Field B7-900-300 2.5mm Wire	per 100m roll
8 line 900 mm high, 150/300 mm spacings	\$205/\$270
7 line 900 mm high, 150/300 mm spacings	\$170/\$219
<hr/> Tightlock Deer (100m rolls) 2.5mm:	
16 line 1900mm high, 240mm spacings	\$339
13 line 1900mm high, 150/300mm spacings	\$287/\$234
11 line 1550mm high, 150/300mm spacings	\$340/\$214
<hr/> Tightlock Field Fence (100m rolls) 2.5mm wire:	
9 line 900mm high, 300mm spacings	\$249
8 line 900mm high, 150/300mm spacings	\$281/\$203
7 line 900mm high, 150/300mm spacings	\$277/\$190

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All netting is Tightlock Top Up Fence (200m rolls) 2.5mm wire unless otherwise stated.

*Goldpine:*

High Tensile 2.5mm Boundary Fence:-		per 100 metres
Hinge Joint	13/190/15	\$322.57
Staytight	13/190/30 to 11/155/30	\$226.36 to \$207.03
Hinge Joint	13/190/30 to 11/155/30	\$194.06 to \$178.07
Staytight	8/90/30 to 8/80/30	\$196.18 to \$187.60
Staytight	7/90/30	\$183.55
Hinge Joint	8/90/30 to 8/80/30	\$176.18 to \$167.56
Hinge Joint	7/75/30	\$150.34
Hinge Joint (Hi Lite)	6/70/30, x 200m	\$249.94

*Newfield Marketing:*

Galvanised sheep netting 1.2m x 50m roll	41 x 41mm mesh	\$172 per roll
Galvanised emu netting 1.7m x 50m roll	41 x 41mm mesh	\$254 per roll

## 2.19.8 Fencing Tools and Equipment

### Straining Equipment

*Beattie Insulators:* (wholesale prices)

Wire Strainers:	Price per item
Insulated wire strainer	\$3.78
Uninsulated wire strainer with spring pin	\$2.59

*Cyclone:*

Hayes wire strainers:	Price per item
Hayes permanent 302 (pack of 25)	\$2.50
Tightening handle – permanent	\$8.00
Chain wire strainer	\$85.00

### Post and Standard Drivers

*Cyclone:*

Hayes post rammer pipe	\$34.50
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*Gallagher:*

Cap for driving Insultimber	\$43.35
Driver for Insultimber	\$180.78

### Hydraulic Post Drivers

*Fairbrother Industries Limited:*

Series 1 Rancher	Free standing, fixed legs, 3.8m standard beam (205kg).	\$4,094
Series II Deluxe Rear Mounted	Free standing, adjustable legs, 3.8m 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, 205kg, 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, adjustable legs, hydraulic top link 250mm stroke and hydraulic angle mast 30° angle.	\$8,914.50
Contractors Unit Includes -	4 m mast, twin RHS mast, 600lb monkey, 1/2" wire rope, fully adjustable legs, hydraulic top link 250mm stroke, hydraulic angle mast 30° angle and hydraulic side shift 200mm movement.	\$11,854
Optional Extras for Farmer Unit		
	Hydraulic Side Shift 200 mm Movement	\$1,194.50
	Hydraulic End Shift 150 mm Movement	\$1,713
	Hydraulic Easy-Spike Unit 75 mm dia. pin x 1.2 m travel (add extra \$193.60 for 90mm dia pin)	\$2,675
Optional Extras for Contractor Unit		
	Hydraulic End Shift 150 mm Movement	\$1,513.50
	Hydraulic Fold Down Top Mast + 200mm extra mast	\$960.00
	Hydraulic Easy-Spike Unit 90 mm dia. pin x 1.2 m travel (add extra \$464.60 for 120mm dia pin)	\$2,768.00
	Hydraulic Fold Down 16ft Mast	\$1,560.00
	850lb monkey	\$386

**Fencing Tools**

Crowbar 4'6"		\$62.20
Shovel (Atlas)		\$47.60
Sledge hammer – 4.5 kg long handle		\$47.10
Gudgeons lock through post	- short/long pin	\$18.35/\$20.00
Gudgeons through post	- short/long pin	\$13.85/\$15.15
Gate fasteners and Staples		\$7.70
Spring Loaded Toggle		\$8.50
Joint Clamps		\$1.05 to \$1.30

*Gallagher:*

Pliers, side cutting		\$62.15
Wire twisting tool		\$5.41

## 2.19.9 Electric Fence Energisers

### *Gallagher:*

Mains Energisers	MR5000	\$1,481.00
	MR2500	\$818.40
Mains Powered	Powerplus M300	\$262.15
	Powerplus M600	\$434.77
	Powerplus M1200	\$581.82
Battery Powered	B45 - up to 1.5 km multi wire fencing	\$275.79
	B1600 - up to 60 km multi wire fencing	\$1,276.83
Solar Powered	B160 solar kit	\$948.80
	B1600 solar kit, 60 Watt	\$3,706.45
	Additional Panel for B160/B1600	\$415.60 to \$1,256.92

### *Stafix:*

Stafix M36 Energiser Remote	\$1,937
Stafix AN90 Energiser	\$140

## 2.19.10 Insulators

### *Beattie Insulators:* (wholesale prices)

Wooden post insulators	\$0.24 to \$0.60
Waratah or Y insulators and flat standard insulators*	\$0.33 to \$0.47
Strainer / corner insulators	\$0.67 to \$2.07
Gate break kit (including anchor and live connection)	\$6.33
Outriggers	\$1.09 to \$1.33
Pigtail outriggers	\$1.55 to \$3.11
Concrete post insulator (with 100mm or 125mm screw)	\$1.61

\*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	\$1.18
Turbo End Strain – white	\$1.61
Long Life wooden post	\$0.45
Pinlock wooden post/Y steel post	\$0.28/\$0.48
Polytape insulator for polytape, up to 40mm	\$1.07
Offsets - pigtail offset 150mm / 400mm	\$1.06/\$2.39

### 2.19.11 Electric Fence Reels and Wire

#### *Beattie Insulators:* (wholesale prices)

Insultube – 30 m coil	\$14.95
Insulsticks x 100mm/Insulsticks x 140mm	\$12.08
Self insulated fence reel	\$31.63
Livestock Electric Netting – 50 metres	\$159.85

#### *Cyclone:* - Electric Fence Wire

2.00mm (soft) 204m roll, galvanised	\$29.00
Needle lacing wire, galvanised	\$11.50

#### *Gallagher:*

Strip grazing reels - small	\$35.17
- medium complete with handle and insulgrip	\$48.59
- medium geared complete with handle/insulgrip	\$51.08
Triple reel system (3 reels prewound polywire mounted on stand)	\$207.16
Reel stand for deer fencing (1 to 4 reels)	\$37.09
Reel stand (1 to 3 reels)	\$22.86
Lead, connector for single reel	\$6.17
Lead, connector for multi reels	\$13.83
Wire and Tape:	
XL wire, aluminium coated high conductive 1000m	\$450.53
Polywire - Ultra white, 6 strand, 200/500m	\$18.02/\$35.91
Turbo Wire - white XL, 9 strand, 200/400m	\$37.36/\$70.61
Polytape - white, 5 strand, 200m	\$23.62
Turbo tape - white, 200/400m	\$41.64/\$82.74
Turbo Rope - 200/500m	\$149.07/\$290.91
Electric Netting - Euronet 50m	\$173.86

### 2.19.12 Electric Fence Standards/Outriggers

#### *Gallagher:*

Tread-in, polymer, multiwire	\$2.85
Heavy duty multiwire tread-in	\$3.44
Extenda-post (heavy duty tread-in with extension)	\$5.37
Pigtail standard (white plastic coated)	\$2.50
Fibreglass:	
Post 1200 x 10mm / 1370 x 13mm (white)	\$3.61/\$6.86
Post 1500 x 10mm / 2000 x 10mm (orange)	\$4.40/\$5.86
Post 2000 x 13mm (white)	\$10.27
Quick Clips 10mm / 13mm	\$0.24/\$0.34
Pressure Plate (for 10 and 13mm)	\$0.82
Cap, Driver	\$11.00
Outrigger 10mm diameter x 200mm	\$1.02
Outrigger pointed 10mm diameter x 300mm	\$1.47

### 2.19.13 Electric Fence Cable

#### *Gallagher:*

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2.5mm undergate double insulated cable (50m)	\$49.35
Leadout cable, XL high conductive, 100m	\$154.66

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#### *Beattie Insulators:* (wholesale prices)

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Underground Cable - 1.6 mm x 25 m	\$12.88
- 2.5 mm x 25 m	\$16.10
- 1.6 mm x 50 m	\$23.35
- 1.6 mm x 100 m	\$44.97
- 2.5 mm x 50 m (heavy duty)	\$26.45
- 2.5 mm x 100 m (heavy duty)	\$51.75
- 2.5 mm x 250 m (heavy duty)	\$131.95

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### 2.19.14 Electric Fencing Accessories

#### *Gallagher:*

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Testers -	Neon	\$35.44
	Digital volt meter	\$89.86
	Live lite indicator	\$41.72
Batteries -	Dry cell	\$74.15
	Low loss	\$243.00
Earthing Equipment -	Galvanised joint clamp	\$0.94
	Screw in tie down (galvanised)	\$5.49
	Screw in tie down handle	\$29.31
	Earthing stake, galvanised 2m	\$16.60
	Earth clamp, galvanised	\$6.60
	Gallagher super earth kit	\$106.03

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#### *Stafix:*

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Stafix Lite tester	\$26.00
Stafix digital voltmeter	\$93.00

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### 2.19.15 Staples

#### *Goldpine:*

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Barbed	40mm x 5kg	\$27.39
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#### *Cyclone:*

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Barbed staples	40 x 4.0 (25 kg box)	\$107.00
	50 x 4.0 (25 kg box)	\$106.00

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## 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)	\$40,000	\$29,994 to \$53,565
38 to 52 kW (51 to 70 hp)	\$54,000	\$33,026 to \$71,600
53 to 75 kW (71 to 100 hp)	\$72,000	\$59,750 to \$94,900
75 to 100 kW (100 to 133 hp)	\$120,000	\$92,757 to \$163,700
Over 100 kW (over 133 hp)	\$214,900	\$144,500 to \$249,000

#### Farm Bikes (see Section 2.20.4)

2 wheel	\$5,500	\$3,000 to \$10,000
4 wheel (2 or 4 WD)	\$13,250	\$7,995 to \$22,213

#### Trucks and Utilities (see Section 2.20.15)

There are a range of models with differing cab/deck arrangements, mostly with a choice of fuel type and 4WD option.

2WD vehicles	\$33,547	\$23,547 to \$64,080
4WD vehicles	\$43,380	\$22,133 to \$80,880

### 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 (these may have a conditioner attached or as an optional extra)	\$13,080	\$2,260 to \$39,850
Mower Conditioners	\$47,000	\$21,000 to \$119,000

#### Hay Rakes

(see Section 2.20.6) \$21,000 \$6,000 to \$47,000

#### Hay Balers (see Section 2.20.6)

Conventional	\$37,825	\$32,800 to \$43,000
Big balers - Round	\$65,830	\$48,000 to \$115,000
- Square	\$139,275	\$101,591 to \$198,500

**Ploughs** (see Section 2.20.16)

Depending on the number of furrows and tractor mounting

\$38,900

\$8,760 to \$140,675

**Discs** (see Section 2.20.16)

\$38,070

\$10,395 to \$86,900

**Harrows** (see Section 2.20.16)

\$1,624

\$285 to \$4,935

**Power Harrows** (see Section 2.20.16)

\$27,660

\$18,000 to \$95,500

**Rollers** (see Section 2.20.16)

Heavy rollers

\$11,075

\$8,050 to \$14,360

Cambridge rollers

\$13,280

\$4,995 to \$36,800

**Drills** (see Section 2.20.17)

\$26,820

\$7,800 to \$69,200

**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)*

## Lifestyle Series

T1570 / T1770	15 / 17hp	\$8,995 to \$10,995
TG1860	18hp	\$15,995

## Commercial Garden and Mowing Tractors:

ZD18-21	18/21hp	\$23,990 to \$25,990
GZD15	15 hp	\$23,990
F1900E	2WD / 4WD	\$20,450 to \$24,503
F3560	4WD	\$29,994 to \$37,485

## Compact Tractors and Optional Mid Mowers:

BX2200	22 hp	\$21,500
B2710 HST DT	27 hp	\$29,201 to \$29,278
STA35 HST	36 hp	\$35,741 to \$36,043

## L Series Tractors:

L3410 HST DT	35.1 hp	\$36,200 to \$37,023
L4310 DT	45.3 hp	\$39,507 to \$40,310
L4310 FP Q and DT Q	4WD 45.3	\$52,760 to \$53,565
L5030	4WD 52.2 hp	\$44,988 to \$53,565

M Series:			
M5700	2WD / 4WD	63 hp	\$44,990 to \$47,990
M110/M120 Series:			
M110 DTQ	4WD	110 hp	\$95,000
M120 DTQ	4WD	120 hp	\$99,500

*New Holland: ( C.B. Norwood)*

Utility and Special Tractors:			
TNF Series		65 to 88 hp	\$52,914 to \$94,660
TNN Series		71 hp	\$60,400 to \$66,772
TND/S Series		61 to 75hp	\$55,540 to \$81,479
TDD Series		55 to 95 hp	\$43,670 to \$69,210
TL Series		78 to 97 hp	\$64,935 to \$90,765
High hp Tractors:			
TSA Series – 4WD		101 to 135 hp	\$92,757 to \$132,859
TM Series		124 to 229 hp	\$122,500 to \$197,000
TG Series		209 to 283 hp	\$204,600 to \$252,900

*Power Farming*

Daedong:			
31 to 50 hp 4WD			\$27,990 to \$33,990
51 to 70 hp 4WD			\$36,990 to \$52,990
71 to 100 hp 4WD			\$48,990 to \$61,990
Same:			
31 to 50 hp 4WD			\$34,900 to \$37,900
51 to 70 hp 4WD			\$49,900 to \$70,800
71 to 100 hp 4WD			\$51,900 to \$101,500
Over 100 hp 4WD			\$112,900 to \$184,900
Landini:			
41 to 70 hp	2WD	\$49,900 to \$61,500	4WD \$39,900 to \$69,900
71 to 100 hp			\$49,500 to \$99,900
Over 100 hp			\$107,900 to \$138,900
McCormick:			
81 to 100 hp 4WD			\$72,900 to \$103,500
Over 100 hp 4WD			\$99,900 to \$161,500
Renault			
71 to 100 hp 4WD			\$89,000 to \$91,000
Over 100 hp 4WD			\$94,000 to \$210,000

*Case: (W.H. Cochrane and Co Ltd.)*

	hp	
PJN65R4 / PJN65C4	65	\$57,700/\$71,600
PJN75R4 / PJN75C4	75	\$60,480/\$75,000
JX65R4 / JX65C4	63	\$51,500/\$60,990
JX75R4 / JX75C4	73	\$54,500/\$64,850
JX85R4 / JX85C4	84	\$59,950/\$69,970

JX95R4 / JX95C4	95/97	\$66,300/\$76,900
JX70UR4 / JX70UC4	68	\$58,300/\$70,850
JX100UR4 / JX100UC4	97.2	\$79,900/\$91,500
Maxxum series		
MX80C / MX90C	86/92	\$87,700/\$94,900
MXM120 / MXM130	124/131	\$123,000/\$134,700
MXM140 / MXM155	140/155	\$144,500/\$153,000
MXM175 / MXM190	177/194	\$177,000/\$186,000
CVX 120 / CVX 130	120/130	\$156,500/\$163,700
CVX150 / CVX170	150/170	\$172,400/\$183,500
MX210 / MX230	212.9/234.2	\$206,700/\$218,800
MX255 / MX285	261.6/315.4	\$235,000/\$249,000

*John Deere:*

Model	2WD	4WD
5020 Series 53 to 93 hp	\$33,026 to \$59,750	\$40,094 to \$81,455
6020SE Series 75 to 125 hp	\$77,013 to \$97,338	\$81,372 to \$115,176
6020 Series 80 to 160 hp	-	\$65,044 to \$202,007
7020 Series 115 to 200 hp	-	\$120,000 to \$221,000
8020 Series 200 to 300 hp	-	\$186,000 to \$260,000

*Challenger Tractors: Gough Gough and Hamer Ltd:*

Engine	Model	HP	Price
Caterpillar 6 cylinder	MT745	205 PTO / 197 Drawbar	\$275,000 to \$290,000
Cat C9	MT755	235 PTO / 226 Drawbar	\$295,000 to \$310,000
	MT765	255 PTO / 245 Drawbar	\$320,000 to \$340,000

**2.20.4 Farm Bikes, Bike Trailers and Accessories.**

*Honda:*

ATVs:

TRX650FA	4 x 4	649cc		\$17,773.33
TRX500FA	4 x 4	499cc	Fully automatic hydromechanical, continuously variable with electronic controls	\$15,551.11
TRX450FM	4 x 4	433cc	5 speed and reverse	\$13,328.89
TRX400FA	4 x 4	397cc		\$13,151.11
TRX350FE	4 x 4	329cc	ESP 5 speed and reverse	\$12,440.00
TRX350FM	4 x 4	329cc	5 speed and reverse	\$11,995.56
TRX350TM	4 x 2	329cc	5 speed and reverse	\$10,662.22
TRX250TM	4 x 2	229cc	5 speed and reverse	\$7,995.56

**Motor Cycles:**

NXR125	2 wheeler	124cc	5 speed	\$3,106.67
CTX200	2 wheeler	197cc	5 speed	\$5,328.89
CT110	2 wheeler	105cc	4 speed	\$3,817.78

**Kawasaki: (Norjo Motors Ltd.)****ATVs:**

KLF 250		2 x 4		\$7,900
KLF 300B/ KLF 300C		2 x 4/4 x 4		\$9,449/\$10,900
KVF360		4 x 4		\$11,990
KVF400/KVF650A Prairie		4 x 4		\$12,436/\$14,658
KVF700		4 x 4		\$15,724
KAF300 Mule 550		2 x 4		\$13,500
KAF620E Mule 2500		4 x 4		\$19,102
KAF620A Mule 2510 Diesel		4 x 4		\$22,213

**2 Wheelers:**

XRX125/ KLX110		4 Stroke		\$3,989/\$3,064
KL250		Stockman		\$7,107
KLX400		Electric Start		\$9,777

**Suzuki New Zealand:**

TF125 Mudbug	2 wheeler	123cc	6 speed	\$3,495
DR200SE Trojan	2 wheeler	199cc	5 speed	\$6,490
DR-Z250	2 wheeler	249cc	6 speed	\$8,995
<b>ATV's</b>				
LT-F160	2WD	158cc	5-speed/reverse	\$5,260
LT-F250 Ozark	2WD	246cc	5-speed/reverse	\$9,500
LT- F300F King Quad	4WD	280cc	5 x3 / reverse	\$12,500
Eiger range	2WD	376cc	Auto/5-speed+reverse	POA
	4WD	376cc	Auto/5 speed+reverse	\$13,995
Vinson range	4WD	493cc	Auto/5 speed+reverse	\$15,995
LT-F500F Quadrunner	4WD	493cc	5 speed + reverse	\$13,995

**Haldane Motorcycles - Yamaha:**

2 Wheeler	- AG100L			\$4,395
	- AG200EL (electric)			\$6,395
	- XT250L			\$7,495
4 Wheeler	- Bear Tracker 2 x 4 (250cc)			\$9,795
	- Big Bear 4 x 4 (400cc)			\$12,995
	- Kodiak 2 x 4 (400cc) Auto / 4 x 4 (400cc) Auto			\$12,495 /\$13,895
	- Grizzly 4 x 4 (660cc) Automatic			\$16,195
	- Kodiak 450			\$14,995

## Farm ATV Trailers and Stock Crates

*Smith Attachments:* (6 standard sizes available, also made to order)

1200 x 900mm	- Trailer – ply deck/ mesh deck	\$939/\$1,053
	- Stock crate	\$377
1500 x 1100mm	- Trailer – ply deck/ mesh deck	\$1,014/\$1,150
	- Stock crate – sliding door/swing doors	\$418/\$507
	- Hay trailer - ply deck/ mesh deck	\$1,202/\$1,347
	- Hay trailer stock crate – sliding door/ swing doors	\$302/\$391
1800 x 1200 mm	- Trailer – ply deck/ mesh deck	\$1,214/\$1,396
	- Stock crate - sliding door/swing doors	\$495/\$533
2400 x 1200	Calf trailer – ply deck/ mesh deck	\$2,178/\$2,400
	Stock crate with divider	\$976
3000 x 1500	Calf trailer – ply deck/ mesh deck	\$2,444/\$2,698
	Stock crate with divider	\$1,098

All trailers have ATV wheels, ball coupling, hot-dip galvanised steel construction, and freight paid to nearest depot.

## Farm Bike Accessories

*Smith Attachments Ltd:*

ATV 4 Wheeler Accessories (Honda, Suzuki, Yamaha, Kawasaki, Polaris):		Motorcycle Accessories	
Bullbar kits	from \$267	Carriers	from \$119
Mudflap kits	from \$75	Handlebar protectors	\$71
		Towbars	from \$125

## 2.20.5 Mowers and Toppers

*Fosters Outdoor Power Equipment:*

Rider Mowers (Countax) 30” to 50” \$5066.67 to \$12,444.44

*C.B. Norwood:*

JF Drum Mowers:

CM170	1.65m	2 drum	\$7,845
CM190	1.90m	2 drum	\$8,995
CM1900	1.90m	2 drum	\$13,225

JF SB Disc Mowers:

SB2400	2.4m	6 disk	\$10,000
SB2800	2.8m	7 disk	\$11,870

Fella Dics Mowers

SM270/SM320/SM350	2.8m/3.0m/3.5m	5/6/7 disc	\$15,630/\$17,710/\$20,990
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*Giltrap Engineering:* (prices include freight to dealers yard) North (NI), South (SI) Island

Pasture Toppers:		NI	SI
TM 1200	3 blade topper - 1.20m cut	\$2,260	\$2,460
TM 1500	4 blade topper - 1.50m cut	\$3,350	\$3,350
TM 1500 HS	2 blade Hi-Speed topper - 1.50m cut	\$3,090	\$3,290

TM 2300	Twin rotor 4 blade topper - 2.30m cut	\$6,800	\$7,050
TM 3000	Twin rotor 4 blade topper - 3.0m cut (fixed one piece body)	\$7,750	\$8,350
Orchard / Park Mowers (rear discharge):			
MOW 1800	no roller - 1.8 m cut	\$7,450	\$7,770
MOW 2100	no roller - 2.1 m cut	\$7,550	\$7,800
MOW 2300	no roller - 2.3 m	\$7,770	\$7,950
MOW 2500	no roller - 2.5 m cut	\$7,850	\$8,100
MOW 2700	no roller - 2.7 m cut	\$7,700	\$8,300

*Kuhn:(D. Cosgrove Ltd)*

Kuhn Multidisc mowers – 2.0 m to 3.1 m			
GMD 66 Select c/w HD PTO			\$11,180
GMD 500 c/w HD PTO			\$11,915
GMD 600/700/800 GII		\$14,090/\$15,420/\$17,615	
GMD 602/702		\$16,580/\$18,495	
GMD 702F c/w A-Frame			\$26,765
GMD 801/802		\$21,330/\$23,035	
Inner swathe wheel			\$195

*Claas: (Landpower NZ Ltd)*

Disco Mowers (6 to 8 disc)	2.45m to 3.4m	\$11,350 to \$18,990
Jaguar 8500C self propelled mower	8.5m	\$370,000

*Taarup: (European Tractors & Machinery)*

TA 2020	5 disc mower 2.0m cut	\$12,300
TA 2024	6 disc mower 2.4m cut	\$13,300
TA 2028	7 disc mower 2.8m cut	\$14,300
TA 2124	6 disc mower 2.4m cut direct drive	\$14,900
TA2128	7 disc mower 2.8 m direct drive	\$15,900
TA2132	8 disc mower 3.2 m direct drive	\$18,200

*Trimax:*

Flail Mowers	Cutting width	
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 167H	4 disc 1.65m cut, 3 blades per disc	\$8,900
VI CM 247H	6 disc 2.4m cut, 3 blades per disc	\$10,500
VI CM 2200H	6 disc 2.15m cut, 3 blades per disc	\$12,600
VI CM 2400H	6 disc 2.4m cut, 3 blades per disc	\$13,300
VI DMP 2800	8 disc 2.8m cut, 3 blades per disc	\$15,900
VI DMP 3200	8 disc 3.2m cut, 3 blades per disc	\$18,900

*Mow King: (Fairbrother)*

Rotary Slasher:			Weight	Price
MK 1200	18 to 30hp	1.20m cutting width, single spindle	190kg	\$1,795
MK 1500	30 to 70hp	1.5m cutting width, single spindle	240kg	\$2,595

*Vicon /PZ: (European Tractors & Machinery)*

Drum Mowers:

PZ CM 168	1.65m cut	2 drum	30 hp	\$8,350
PZ CM 188	1.85m cut	2 drum	35 hp	\$9,350
PZ CM 218	2.10 cut	2 drum	40 hp	\$11,350
PZ CM 268	2.65m cut	4 drum	55 hp	\$14,700
PZ CM 190	1.86m cut	2 drum	35 hp	\$11,290
PZ CM 230	2.3m cut	2 drum	45 hp	\$15,290

**Mower Conditioners**

*C.B. Norwood:*

SM270 Finger/Roller conditioner	2.55m	5 disc	\$24,570/\$29,615
SM320 Finger conditioner	3.0m	6 disc	\$29,920
Mounted disc mower conditioners – Finger:			
JF GD2800 front mount	2.8m	7 disc	\$30,925
Top Safe trailed disc mower conditioner - Finger/Roller:			
JF GMS3200 Finger conditioner	3.15m	8 disc	\$48,395
JF GMS3200 Flex (centre pivot)	3.15m	8 disc	\$56,315
JF GCS2800 Roller conditioner	2.8m	7 disc	\$47,160
JF GCS3200 Roller conditioner	3.15m	8 disc	\$51,995
Fella SM310 Trans finger conditioner	3.0m	6 disc	\$38,250
Fella SM310 Trans roller conditioner	3.0m	6 disc	\$43,505
Fella SM400 Trans finger conditioner	4.0m	8 disc	\$43,985

*Claas: (Landpower NZ Ltd)*

Disco mower conditioners (6 or 7 disc)	2.6m to 3.0m	\$24,500 to \$116,500
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

*Kuhn: (Dan Cosgrove Ltd.)*

Trailed and mounted mower conditioners

FC 280 F complete with A-frame		\$30,555
FC 283 / FC 283 c/w wide spreading kit		\$28,510/\$28,895
FC 313 / FC 313F c/w A-Frame		\$35,405/\$41,055
FC 302 G/FC 302 RG both c/w hydraulic drawbar displacement		\$43,960/\$45,620
FC 303 GC/303 GL/ 303 RGC/ 303 RGL	\$55,755/\$48,300/\$60,475/\$53,355	
FC 352 G / FC 352 RG		\$45,100/\$50,470
Alterna 400/Alterna 500		\$97,135/\$102,510
Alterna 500R		\$114,135
RA Grouper (for FC 302G/RG)		\$18,030

*Tulloch:*

Gehl DC 2365-2418 – mower conditioners		\$48,300 - \$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 c/w conditioner 2.8m		\$21,950
Krone AMT 4000-5000 CV – trailed mower conditioners		\$63,370 to \$86,060

*John Deere:*

1365 Mower Conditioner		\$42,538
Grouper		\$17,239

*Taarup: (European Tractors & Machinery)*

TA 3028	2.8m 7 Disc mounted moco	\$25,900
TA 4028	2.8m 7 Disc trailed moco	\$36,900
TA 4032	3.2m 8 Disc trailed moco	\$39,900

*Vicon: (European Tractors & Machinery)*

VI DMP 3001 TC 8 disc, mounted moco	3m cut	\$26,900
VI KMT/KMR 3001 8 disc, trailing moco – 80 hp	3m cut	\$41,990/\$45,990
VI CM 3001 ATK 4 drum, trailing moco	3m cut	\$41,990
TK Models to fit mounted drum mowers		\$5,500 to \$6,500

## 2.20.6 Hay Making Equipment

### Hay Rakes and Tedders

*B.S. Taeye:*

Line Rakes	8 reel	\$8,800
	13 reel	\$11,800

*C.B. Norwood:*

Rotary Tedders:

Fella TH540/680/800	5.5 to 8.0m	\$3,745 to \$23,590
Fella TH1100/1300	10.5 to 13.0m	\$3,730 to \$39,540

Single Rotor Rakes:

Fella TS455	3.4m	1 rotor	\$16,440
Fella TS670/800	5.48 to 6.4m	2 rotor	\$5,510 to \$41,610
Fella TS4000	12.8m	4 rotor	\$84,750
Twin Rotor Tedder Rake:			
JF CRS400	4.0 m	2 rotor	\$12,995

*Kuhn: (Dan Cosgrove Ltd)*

Kuhn Gyrotedders

GF 5001 TH / GF 5001 MH / GF 5001 THA	\$9,930/\$12,430/\$10,720
GF 5801 MH / GF 6401 MH	\$17,270/\$19,120
GF 6401 T / GF 7001 T	\$23,530/\$14,210
GF 7601 MH/ GF 8501 T	\$26,355/\$31,985

Kuhn Gyrorakes

GA 300 GM with/without bogie wheels	\$7,845/\$6,895
GA 4121 GM with/without bogie wheels	\$12,945/\$11,885
GA 4521 GM	\$19,480
GA 6000/GA 6002 both with bogie wheels	\$30,750/\$32,205
GA 7301 GM with/without bogie wheels	\$35,835/\$33,715
GA 7301 with 3D kit	\$37,680
Bogie Kits (GA 300)/(GA 1421 and GA 7301)/(GA 6000)	\$955/\$1,060/\$2,485

Kuhn Combination Rake / Tedder (*Dan Cosgrove Ltd*) GRS 25 N \$12,200

*Taarup: (European Tractors & Machinery)*

TA 8055	5.5 m tedder	\$15,790
Rakes		
TA 9142	4.2 m single rotor rake	\$15,500
TA 9146	4.6 m single rotor rake	\$17,900
TA 9084C	7.6 to 8.4m twin rotor rake	\$46,900

*Vicon: (European Tractors & Machinery)*

Combination Rake / Tedders:

PZ Haybob300	3.0 m, centre	15 hp	\$6,990
PZ HS360	3.6 m, side	20 hp	\$10,650

Tedders:

PZ Fanex 523 / 683 / 763 hydraulic fold	5.2m/6.8m/7.6m	\$13,600/\$22,900/\$27,950
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Rakes:

PZ Andex 423/ 463	4.2m/4.6m	Single rotor rakes	\$15,500/\$17,900
PZ Andex 843	7.6m to 8.4m	Twin rotor rake	\$46,900

*Tulloch:*

Fransgard TI-4000 to 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 to 850 mounted or trailed rotary tedders	\$16,550 to \$37,070

**Big Balers – Round**

*Case: (W.H. Cochrane and Co. Ltd)*

RBX452 4'x5' twine and net wrap	Rotor/feeder or rotor/cutter	\$61,750/\$68,250
RBX462 4'x6' twine and net wrap	Rotor/feeder or rotor/cutter	\$66,250/\$72,850

*Dan Cosgrove Ltd:*

Feraboli Balers -

Sprinter 165 Ultracut round baler – variable chamber	\$67,270
Sprinter 165 Topcut round baler – variable chamber	\$61,570
Trotter 125 Ultracut round baler – fixed chamber	\$61,080
Trotter 125 Topcut round baler – fixed chamber	\$55,610

*John Deere:*

592 Baler	\$48,516
592 Baler precutter net wrapping	\$66,438 to \$69,475

*Tulloch:*

Gehl RB2580 SS round baler	\$63,210
Krone VP1500 to 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 \$57,800
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*Landpower NZ Ltd:*

R 66	Rollant Baler	\$54,600
R 250RC	Rollant 250 Rotocut	\$63,800
V280	Variant Rotofeed Baler	\$63,500
V280RC	Variant Rotocut Cut Baler	\$67,900

*Vicon: (European Tractors & Machinery)*

Variable Chamber Balers:

VI-RV1601OC	1.2 x 1.6m “opticut”, progressive density	70hp	\$72,900
VI-RV1901R	1.2 x 1.9m “Rotorfeed”, progressive density	90hp	\$62,900
VI-RV1901OC	1.2 x 1.9m “opticut”, progressive density	100hp	\$74,900

Fixed Chamber Balers:

VI-RF 125LOC(Net)	1.25 x 1.22m twine/netwrap/opticut	75 hp	\$64,900
VI-RF 135LOC(Net)	as above plus autoform	60 hp	\$72,900

## Big Balers - Square

*Case: (W.H. Cochrane and Co. Ltd)*

LBX331 31"x35"	Std with tandem/crop cutter with tandem/ rotor cut with tandem	\$173,000/\$193,000/ \$204,700
LBX430 47"x35"	Std with tandem/Rotor cut with tandem	\$200,500/\$229,500

*New Holland: (C.B. Norwood)*

920/940/960	from \$101,591
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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 TA	Rotocut large square baler	\$189,500

*Tulloch:*

Krone Big Pack 80/80 baler	from \$139,800
Krone Big Pack 120/80 baler	from \$150,759

## 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	\$38,000
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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)*

SBX540 14" x 18"	\$43,000
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## Bale Wrappers

*Taupo Engineering: (North Island prices including freight)*

DML model BW2 balage wrapper - ground roll wrapper (towable type)	\$5,453.00
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*Tanco: (C.B. Norwood)*

Series 580A round bale wrapper	\$37,985
1080A square and round bale wrapper	\$48,995
1080ATP square and round bale wrapper	\$52,445
404M mini square/round wrapper	\$20,645
404EH mini square/round wrapper	\$32,600

*Tulloch:*

Pronovost P-6300E round bale silage tubing machine	\$35,600
Pronovost P-6400 square bale silage tubing machine	\$69,200
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

### *Aitchison / Reese:*

Heli-Wrapper 1.5 round bale wrapper (including variable speed drive)	\$19,495
RH2200 bale handler – handles round/square bales	\$2,295
RS 280 Multi Stacker – 3 point linkage. Lifts 1250kg up to 2.8m high	\$3,495
Udy Fork/Bale Feeder – Round bale fork set	\$1,150

### *Clough Group: Balefeeders*

3 point linkage	\$7,510
2 bale trailing – standard wheels	\$11,640

### *Quinn Engineering Ltd:*

Big bale clamp – 3 point 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)	\$6,047.00
FM1250 3P/SSF	Double sidefeeder 3 point forks (1,600 kg capacity)	\$6,775.00
FM-SIDE	Side delivery extension (medium size)	\$871.00
FM-SIDEL	Side delivery extension (large size)	\$974.00

#### Multi Bale Feeders:

SF 1202-T	Heavy duty 2 bale side feeder and transporter type	\$9,584.00
SF 1203-T	Heavy duty 3 bale side feeder and transporter type	\$10,127.00
SF 1250-D	Heavy duty 2 bale double side feeder	\$10,209.00
SF 1253-D	Heavy duty 3 bale double side feeder	\$10,742.00

#### DML 3 Point Linkage Bale Forks:

3P-SSF	Heavy duty – 1,600 kg capacity (spear type)	\$1,096.00
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#### DML Front End Loader Forks:

FE-SSF	Heavy duty 1,600 kg capacity (spear type)	\$1,175.00
CF160	Silabale dual purpose forks	\$2,634.00

## 2.20.7 Spray Equipment

### General

AgMark:

#### Orchard Sprayers:

D026-40	200 litre Suntuff c/w fan and MP40 pump	\$6,225
D058-96	500 litre Suntuff c/w 800 fan and APS96 pump	\$8,295
M209-145S	Maxi Blast 2000 litre trailed airblast	\$16,075
20145M-9SVT	SVT920 multi duct air blast sprayer	\$17,775
GTM-P424 Plus	Turbomiser 400 litre, linkage sprayer	\$8,995
GTM-P506 Plus	Turbomiser 600 litre, linkage sprayer	\$11,495
GTM-P55D6 Plus	Turbomiser 600 litre linkage sprayer	\$12,995
GTM P5010G2	Turbogrape 1000 litre trailed sprayer	\$35,500
GTM P55D20G2	Turbogrape 2000 litre trailed sprayer	\$36,395
SR-P5015G2	GIII Turbogrape 1500 litre trailed sprayer	\$35,465
SR-P55D20G2	GIII Turbogrape 2000 litre trailed sprayer	\$36,865
Strip Spraying System	400mm/800mm shielded spray dome	\$780/\$845

#### Agricultural Sprayers:

KB-600-41	Pastureland Pak 600 litre c/w CAPS41 pump	\$4,495
KB-800-48	Pastureland Pak 800 litre c/w P48 pump	\$5,125
SP-600-48	Spray Pak 600 litre c/w P48 pump	\$4,245
EP-600	Ecopak 600 litre c/w petrol engine	\$2,795
SL-200	Sledpak 200 litre c/w petrol engine	\$1,695
BF-600	Big Foot 600 litre ATV Sprayer	\$1,995

#### Booms:

Agri-06	6 m pasture boom (horizontal fold)	\$815
033-C6	6 m combi boom (horizontal fold)	\$1,265
Mec-18	18 m Mec boom 5 section hydraulic fold.	\$12,095

#### Monitors:

1100	Farmscan Hectaremetre	\$675
2200	Farmscan surveillance monitor c/w wheel sensor	\$1,355
1400	Farmscan Litremetre	\$675
1500VF	Farmscan Bazooka Batchmetre c/w remote readout	\$998
22C5-AA121	Farmscan spray controller	\$2,620

#### General:

UP20/SP50	20 litre /50 litre 12 volt sprayer	\$399/\$549
SP100/SP200	100 litre/200 litre 12 volt sprayer	\$699/\$789
CW-1	Cheesco weed wiper, mounted	\$895
LT35-8000	Lightfoot 300 litre trailed bike or ride-on mower sprayer	\$2,445

*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	\$3,808
Agpak 700	Complete as above with 700 l linkage sprayer and 10 m boom.	\$4,845
ATM Series	500 litre linkage sprayer with 6 to 10 metre boom	\$3,394 to \$4,210

*Cropmate Series, for smaller tractors*

ATM 3P Series	300 litre linkage sprayer AR19 pump, 3 - 4 m boom	\$2,762 to \$2,794
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*Ute Pak Series - non motorised*

UP 30 – UP 200	35 litre / 200 litre, 12 volt ute pack	\$392/\$1,098
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*Ute Pak Series – motorised*

UP 200 19 PE	200 litre, 4.0 hp petrol	\$3,525
UP 450 - UP 550-30 PE	450 to 550 litre, 5.5 hp petrol	\$4,438 to \$4,580

*Utility Trailed sprayers*

UT 200-12v/UT 200-19 PE	200 litre 12 v pump, 4 m boom/200 l AR 19	\$3,171
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*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	\$1,480 to \$1,507
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*Foam marking systems:*

ARAG &RHS	Pressure marking system single/double side 12 metre hose and droppers	\$1,375 to \$3,395
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*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 \$2,184

*Linkage booms*

CFB Series	3 m to 12 m boom, 6 to 20 nozzles	\$550 to \$2,318
	12 metre Hydralink boom, 24 nozzles, self levelling	\$9,356

*Ag Equipment Specialists (AES):*

*Sprayers – motorised*

AES Petrol powered	17 to 53 litres per minute	\$2,145 to \$2,885
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*Spraying Accessories*

Spray Booms	4.5 and 6 m complete with nozzles	\$579 to \$749
Hose Reels	100 mm and 150 mm	\$245 to \$255
Spray Hose	10 mm ID	\$2.95 per m
Spray Guns		\$110 to \$115

*Hardi Spraying Equipment:*

Sprayer for 4 wheeled motor bikes,	70 /100 litre capacity	\$695/\$825
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**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 hose reel and spraygun	\$5,545
Precision sprayer 600 litre tank, 10 metre boom	\$5,791
<b>Very Accurate and Safe Sprayer (three point linkage)</b>	
800 to 1200 litre tank, 12 to 24 metre boom, remote controlled from tractor cabin (electric and hydraulic controls)	\$14,395 to \$87,000
<b>Trailer Sprayers:</b>	
1500 litre, 2400 litre, 3500 litre, 12 to 24 metre boom	\$36,000 to \$65,000
<b>Orchard Sprayers – Pip Fruit:</b>	
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	\$69,900
UG3000	Trailed sprayer with 24 m Super S boom	\$74,000
UF1200	3 point linkage sprayer with Super S boom	\$46,500

**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	\$2,250 to \$3,195
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*C-DAX Systems Ltd.:*

ATV Mounted, Deck Mounted and Trailed Sprayers

ATV Mounted sprayers, complete with 10 m of 8.5mm hose, handgun, on/off switch, 12 volt pump, wiring loom, tie-down straps and hose clips.

50/80/100 litre front/front or rear/rear mount	\$975/\$1,025/\$1,150
Additional front or rear tanks 50/80/100 litre	\$490/\$530/\$550

Pressure Nozzle Booms for ATV's:

Wet Booms	- 2 m or 3 m	\$295 to \$395
	- Budget Boom 4.5m	\$380 to \$575
Vertical fold booms	- 3 m to 6 m, complete with breakaway	\$395 to \$1,250
	- Quick-Smart vertical fold boom	\$680 to \$1,040

CDA Booms for ATV's:

Low volume CDA boom	\$1,335 to \$2,895
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	\$1,495
Auxillary left hand ganged eliminator 4.7m coverage. Elimaux1	\$1,550
Auxillary right hand ganged eliminator 7m coverage. Elimaux2	\$1,310

Deck or trailed sprayers, include 10 m hose and gun, spot spray. 12 volt pump:

U200 spot sprayers – 200 litre, deck/trailed, 12 volt	\$1,130 to \$2,420
400 litre spot sprayer, deck/trailed	\$1,640 to \$2,670

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**Engine driven deck or trailed sprayers with hose reel and gun:**

U200 (E)	\$3,995 to \$5,250
400 litre	\$3,895 to \$5,650

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**Deck or trailed boom sprayers, includes 4 to 6m vertical fold boom, 200 and 400 litre tank:**

12v electric pump pressure nozzle boom sprayers - deck mounted	\$1,670 to \$2,300
- trailed (smooth, turf tyres)	\$2,630 to \$3,500

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**Deck or trailed CDA boom sprayers, includes 5.4 to 7.2m boom, 200 and 400 litre tank:**

12v Electric pump CDA boom sprayers - deck mounted	\$3,500 to \$4,760
- trailed (knobbly turf tyres)	\$4,590 to \$5,220

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**Accessories**

Hose Reels, 25 m to 100 m, manual wind	\$195 to \$350
Hose 580 psi - 8.5 mm/10mm/13 mm	\$2.90/\$4.40/\$5.60 per m
- 19.0 mm/25mm, 580 psi	\$10.80 \$23.70 per m
Spray guns, lance style/pistol style	\$95.00 to \$165.00
Foam markers, single foam	\$900.00
12 volt pump spray controller:	
Rate Rite ATV spray controller	\$1,395

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**Knapsack Sprayers***Ag Equipment Specialists Ltd.:*

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AES OMR16	16 litre	\$135
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*Croplands Equipment Ltd:*

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Plastic knapsack	15 litre	\$195.00
Pump up sprayers	3 litre/6 litre	\$99.00/\$109.00

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*White Star Products:*

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“Fynspray” WS 22 high pressure brass knapsack	\$410.70
“Fynspray” WS 72 / WS 73 5 litre plastic knapsack sprayers	\$105.07/\$75.00
“Fynspray” WS 75 high pressure plastic knapsack sprayer	\$222.20

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**Greenhouse Sprayers***Kanters Engineering & Machinery Ltd.:*

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Low volume mist sprayer - fully automatic	\$3,750
- deluxe model, pneumatic adjustable height	\$4,250

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**Hand Held Sprayers***C-Dax Systems Ltd.:***Low volume hand held sprayers:**

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6 volt low volume CDA band sprayer, 0.1m to 0.5m spray width	\$350
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*White Star Products:***Fynspray Spray Pumps:**

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WS 21 Orbit double action pump	\$55.53
WS 23 Sprite double action pump	\$79.64
WS 23K Jerry can conversion kit	\$22.28

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## Trolley Sprayers

*Bertolini Australasia:*

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:*

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 and spray gun	\$604

## 2.20.8 Tractor Transport Trays

*Giltrap Engineering:* (prices include freight to dealers' yards) North (NI) and South (SI) Island prices.

Speedy Hitch Transport Trays	Tray only		Complete	
1.98 m x 1.22 m	NI\$1,040	SI\$1,220	NI\$1,370	SI\$1,550
2.13 m x 1.37 m	NI\$1,065	SI\$1,245	NI\$1,395	SI\$1,575

## 2.20.9 Frontend Loaders/Forklifts

*Mailleux: (C.B. Norwood)*

Front end loaders all complete with twin crowd, rams, bucket

MX FR Orchard Load	from \$13,545
MX 40/60/80	from \$13,810/\$14,432/\$14,870
MX 100/120/150	from \$15,300/f\$17,100/\$19,680
MX 55U/75U/95U	from \$12,962/f\$13,388/\$14,272

*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 1.8 m wide, 7 to 11 tine	\$2,835 to \$4,160
Silage shear grab	1.2m wide, .62m <sup>3</sup> to 1.76m wide, .90m <sup>3</sup>	\$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	\$96,600
530-70	4WD	4WS	\$106,500

Telehandlers: (Gough, Gough and Hamer Ltd)

	Machine	Operating weight (kg)	Engine	hp / kW	
Caterpillar	TH220	6700	Cat 3054E	120 / 92	\$130,000 to \$140,000
	TH330	7200	Cat 3054E	120 / 92	\$145,000 to \$155,000
	TH350	8480	Cat 3054T	90 / 67	\$135,000 to \$145,000
	TH360	9440	Cat 3054T	90 / 67	\$163,000 to \$173,000
	TH460	10760	Cat 3054	90 / 67	\$193,000 to \$203,000
	TH560	12000	Cat 3054E	120 / 92	\$205,000 to \$220,000

**Forklifts**

*Quinn Engineering Ltd:* (freight included)

	Height	Lift capacity	3 point 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
	3.00 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
	3.30 m	750 kg	\$3,450	\$6,350	\$7,950
3 Stage	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
4 Stage	2.59 m	1000 kg	\$6,800	\$9,700	\$11,500

3 point linkage = pins, hose and QRC, front mounted includes subframe, bolts, tilt ram/s, valve, bank, F/M Sideshift includes extra valve slice, hydraulic auxiliary to forks, sideshift 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 auxiliary – 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 to dealers' yards ) North (NI) and South (SI) Island prices.

	North Island	South Island
2 tonne tip trailer 2.75 x 1.83 deck	\$5,150	\$5,950
3 tonne tip trailer 2.75 x 2.3 deck	\$5,670	\$6,470
4.5 tonne tip trailer 3.2 x 2.3 deck	\$6,500	\$7,300
5 tonne tip trailer 3.65 x 2.3 deck	\$6,950	\$7,950
6 tonne tip trailer 3.65 x 2.4 deck	\$8,750	\$9,750
6 tonne tip trailer - on tandems	\$9,995	\$10,995
8 tonne tip trailer 4.4 x 2.4 - on tandems	\$16,900	\$17,900
12 tonne tip trailer 5.0 x 2.4 - on tandems	\$25,200	\$26,200
12 tonne tip trailer as above with sprung drawbar	\$26,750	\$27,750

#### 2.20.11 Silage Wagons/Forage Harvesters/Maize Choppers

##### Silage Wagons

*Taege 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 to dealers' yards)

North (NI) and South (SI) Island prices.

**Centre Feed Forage Wagons – Super Hydraulic Models:**

MSC70 Super/ MSC 85 Super	7.1/8.4 m <sup>3</sup>	NI\$15,500/SI\$16,300/NI\$16,400/SI\$17,200
MSC90 Super/ MSC 105 Super	9.1/10.8m <sup>3</sup>	NI\$16,500/SI\$17,300/NI\$20,200/SI\$21,000
MSC130 Super/ MSC165	13.3/17.7m <sup>3</sup>	NI\$25,000/SI\$25,900/NI\$29,900/SI\$30,800
MSC 215 Super	21.2 m <sup>3</sup>	NI\$32,300/ SI\$33,300

**Side Delivery Forage Wagons – Super Hydraulic Models:**

MSX66 / MSX80	7.1/8.4 m <sup>3</sup>	NI\$19,000/SI\$19,800/NI\$19,775/SI\$20,575
MSX100 / MSX125	10.8/13.3 m <sup>3</sup>	NI\$23,600/SI\$24,400/NI\$28,900/SI\$29,800
MSX160 / MSX210	17.7/21.2 m <sup>3</sup>	NI\$33,800/SI\$34,700/NI\$36,200/SI\$37,200

**Accessories (freight extra when sold separately):**

Pipe frame and PVC cover	\$680 to \$1,030
Fast floor kit for harvesting	\$1,250 to \$1600
Round bale cradle	\$470

**Forage Harvesters (precision chop)**

*C.B. Norwood:*

**Precision Chop Forage Harvesters:**

Model	Working width	
FCT900	1.80 m pickup	\$69,515
FCT1050	2.10 m pickup	\$99,365
FCT1350	3.00 m pickup	\$105,525

*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	\$11,655
1 Row crop head with chains and floating heads	\$5,460
Pick up with gathering auger of 1.4 m	\$5,555
Cutterhead adjustment kit	\$65
Adjustable kernel breaker	\$280
Kit for tilting discharge spout	\$295

**Maize Choppers**

*Taarup: (European Tractors & Machinery)*

TA 101	Single row maize harvester	\$15,250
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*Tulloch:*

Mengele MB220 mounted maize harvester, single row, 12 knife rotor	\$15,700
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*Vicon: (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

*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 models (10, 16, 20 and 40kg hoppers)	from \$821
Electric drive models (10, 16, 20 and 40kg hoppers)	\$1,580 to \$1,730

## 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, 2hp - electric/PTO	\$2,500/\$2,200

#### *Kuhn: (Dan Cosgrove Ltd.)*

Mixer Wagons : Euromix II 1460 /Euromix II 1860	\$76,000/\$84,000
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### *Giltrap Engineering: (prices include freight in North Island only)*

NDE Vertical Total Mixed Ration Feeder.	North Island	South Island
Model 401/ 495	\$52,400/\$56,600	\$52,400/\$56,600
Model 501/ 551LP	\$64,200/\$71,300	\$64,200/\$71,300
Model 701/ 801	\$81,100/\$83,300	\$81,100/\$83,300
Model 1001/1201	\$101,000/\$137,500	\$101,000/\$137,500

## 2.20.13 Prill Applicators

### *Beattie Insulators:*

KG Prill Applicator – for prills and granules	\$29.90
Bottle only	\$1.96

## 2.20.14 Fertiliser and Manure Spreaders and Topdressers

### *Specialty Machinery (Marton) Ltd:*

Precision Fertiliser Applicators	
For side dressing vegetable / maize crops. 2 to 8 row	from \$6,600

### *Amazone: (Landpower NZ Ltd)*

#### *Twin Disc Fertiliser Spreaders:*

ZAXW502	ZA-XW Perfect	500 litre	\$5,000
ZAMP1000	ZA-M Premis	1000 litre	\$7,990
ZAMM1500	ZA-M Maxis	1500 litre	\$8,990
ZAMT	ZA-M Tronic Amados	add	\$3,990
ZA-MPRO 1500	ZA-M Profis	1500 litre	\$17,990

### *AgMark:*

#### *Eurospread Models*

XA – 400/500 300/340 litre capacity – steel hopper	\$895/\$945
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#### *B/S Broadpectrum models – spinner spreaders – XL series*

XL – 400/500 300/350 litre – plastic hopper	\$1,375/\$1,475
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#### *Oscillating tube spreaders – P Series*

P406/556 390/540 litre capacity – plastic hopper	\$3,695/\$4,150
P706/906 690/890 litre capacity – plastic hopper	\$4,350/\$4,550

### 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
SP402T	Eurospread 380 litre, tandem wheel, trailed	\$3,295

### Howard Models

HS 300/400/500	300/380/450 kg capacity steel hopper	\$850/\$890/\$940
PS 400/500	380/450 kg capacity plastic hopper	\$1,370/\$1,470

### Aitchison / Reese:

Linkage mounted spinner spreaders – 460 to 660 litres capacity	\$1,995 to \$2,295
Linkage mounted spinner spreaders – 800 to 1200 litres capacity	\$3,595 to \$4,595
A.T.V. Trailed spreaders – 160 to 460 litres capacity	\$1,995 to \$2,595

### Taupo Engineering: (North Island prices including freight)

DML Bulk Fertiliser Spreaders: (built to order – not a stock item)		
T.H.S. Model 680/980 (680 kg/980 kg units)		\$6,996/\$7,093
T.H.S. Model 2000/3000 (2 tonne/3 tonne units)		\$9,276/\$10,055
T.H.S. Model 980C – ideal for organic material – belt floor		\$7,472

### Giltrap Engineering Ltd: (prices include freight to dealers yard )

#### North (NI) and South (SI) Island prices

Slurry Spreaders (5000 to 10000 litre tanks, single/ tandem axles)	NIS\$18,600/SIS\$19,500 to NIS\$34,300/SIS\$35,400
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### Sulky: (C.B.Norwood)

#### Rotor Series:

Rotor 500BC	Single spinner	580 litre	9 to 12 m spread	\$3,150
Rotor 600BC	Single spinner	600 litre	9 to 12 m spread	\$4,375
Rotor 1150BC	Single spinner	1150 litre	9 to 12 m spread	\$5,625

#### DR Series:

DRC850	Twin spinner	850 litre	9 to 18 m spread	\$6,795
DRC1250	Twin spinner	1250 litre	9 to 18 m spread	\$7,370
DRC1450	Twin spinner	1450 litre	9 to 18 m spread	\$7,470
DPX Prima	Twin spinner	900/1800 litre	18 to 28 m spread	\$9,445 to \$10,460

### Kuhn: (Dan Cosgrove Ltd.)

MDS 82 with/without double acting hydraulics	\$8,435/\$7,630
MDA 732 M with/without double acting hydraulics	\$8,245/\$7,440
MDS 932 M with double acting hydraulics	\$9,240
MDS 1141	\$17,850
Aero 2212 - 12m boom/ 2215 -15 m Boom	\$52,130/\$55,005
Agitator for powder/ 2 row adjustable banding equipment	\$220/\$725
7 row crop attachment	\$5,738
200 litre extension / 900 litre extension	\$625/\$1,320

*Vicon: (European Tractors & Machinery)*

Superflow Pendulum Spout Spreaders:

VI-PS 203	175 litre, 12 metre bout width	\$2,990
VI-PS 403	as above, with 400 litre capacity	\$3,990
VI-PS 604	as above, with 600 litre capacity	\$4,990

Rotaflow Twin Disc Spreaders:

VI-RSC700	700 litre - bout width >20 m	\$7,500
VI-RSM1050	1050 litre - bout width >24m	\$8,500
VI-RSXL1650	1650 litre - bout width >36m	\$11,950
VI-RSXL1650EDW	1650 litre - bout width >36m, fully electronic weighing, GPS Ready	\$16,500

*C-Dax Systems Ltd:*

Ground driven ATV trailed broadcast spreaders, 300 litre hopper and cover	\$1,899 to \$2,240
12 volt electric 70 litre hopper, ATV mounted	\$765 to \$930
Ground Driven side chute spreader, 300 litre hopper with cover	\$2,240
Trailed Stock Feeder, delivers in snacks or a line	\$1,995

**2.20.15 Trucks and Utilities (Light Commercials)**

*Daihatsu:*

RV – Terios range

1.3 4WD 5 door manual / auto	\$22,133/\$23,467
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Trucks

2.8 diesel 1.5 tonne standard cab, cab/chassis manual	\$28,613
2.8 diesel 2.0 tonne standard cab, cab/chassis low deck, manual	\$30,667
3.7 diesel 3.5 tonne wide cab, cab/chassis, manual	\$34,924
3.7 diesel 3.0 tonne wide cab tipper, manual	\$44,444

*Donnithorne Simms:*

Triton Petrol Utilities	
2.4 Double cab Workhorse	\$27,547
3.0 V6 Club cab 4WD Workhorse	\$32,436
3.0 V6 Double cab 4WD Workhorse	\$33,324
3.0 V6 Double cab 4WD Sport Manual	\$40,436
3.0 V6 Double cab 4WD Sport - auto	\$41,769
2.8 Single cab chassis	\$23,547
Triton Diesel Utilities	
2.8 Double cab	\$27,547
2.8 ICTD cab chassis 4WD	\$32,436
2.8 ICTD Double cab 4WD	\$35,547
2.8 ICTD Double cab 4WD Sport Manual	\$40,436
Options: Wellside tray for single cab	\$1,778

*Ford:*

Courier petrol	chassis/cab	wellside
2.6 litre range (manual)	\$24,800 to \$30,133	\$26,577 to \$35,288
Courier diesel – 2WD		
2.5 litre range (manual)	\$28,177 to \$32,800	\$29,955 to \$36,977
Courier diesel – 4WD		
2.5 litre range (manual)	\$35,022 to \$41,066	\$41,066 to \$43,288
Falcon Utility	chassis/cab	pick-up
4.0 litre range (auto)	\$30,133	\$31,911 to \$43,377
4.0/5.0 auto/manual	-	\$36,889 to \$46,666
Falcoln Utility – LPG		
4.0 Auto (Col)	\$31,466	-
4.0 Auto	-	\$32,244 to \$35,111
F-Series	2WD (5.4 V8 petrol)	4WD (7.3 V8 diesel)
Various cab options	\$64,080	\$76,900 to \$80,880

*Holden: (Blackwell Motors Ltd)*

Holden VY II Utility	3.8L V6	5.7L V8
5 speed or automatic	\$31,911 to \$35,111	\$39,822 to \$44,000
Holden Rodeo	3.5L V6 petrol	3.0L diesel (turbo)
2WD	\$28,622 to \$41,422	\$28,889 to \$39,556
4WD	\$46,578	\$37,067 to \$47,733

*Mazda:*

Bounty – 2WD 2500cc turbo diesel	chassis/cab	wellside
Standard cab	\$20,930 to \$21,596	\$22,930
Cab plus	\$23,646	\$24,646
Double cab DX	-	\$25,433 to \$26,100
Double cab SDX	-	\$27,633
Bounty – 4WD 2500cc turbo diesel	chassis/cab	Wellside
Standard cab	\$26,067 to \$26,733	
Cab plus	\$28,867 to \$29,200	\$30,200
Double cab DX		\$30,200 to \$30,867
Double cab SDX		\$32,566

*Nissan:*

Navara – 2WD	chassis/cab	wellside
S/Cab 2.5 turbo diesel	\$29,062	\$30,840
K/Cab 2.5 turbo diesel	\$31,640	\$33,151
D/Cab 2.5 turbo diesel	-	\$33,506
Venturer D/Cab 2.4 petrol		\$33,328
Venturer D/Cab 2.5 turbo diesel		\$36,173
Navara – 4WD	chassis/cab	wellside
S/Cab 3.0 turbo diesel	\$37,328	\$40,440
D/Cab 3. diesel		\$41,506

Venturer D/Cab 3 turbo diesel		\$45,328
Patrol – 4WD	4.8 petrol	3.0 diesel (turbo)
5 Door wagon auto	\$75,551	\$62,217
X-Trail – 4WD		2.5 petrol
5 Door Wagon		\$35,551 to \$41,417

*SangYong: (Murray Costello Cars)*

Rexton RX290 diesel 5 speed / automatic		from \$46,990/\$49,990
Rexton RX290 petrol 5 speed / automatic		from \$49,990/\$52,990

*Toyota:*

Hi-Lux – 2WD	chassis/cab	ute
Single cab	\$28,355	
Extra cab 3.0 diesel		\$31,111
Single cab 2.7 petrol	\$26,133	-
Extra cab 2.7 petrol / Double cab 2.7 petrol	-	\$29,689/\$32,000
Double cab 3.0 diesel / Double cab SR5	-	\$32,178 to \$35,556
Double cab SR5 2.7 petrol	-	\$36,266
Hi-Lux – 4WD	chassis/cab	ute
Single cab 3.0 diesel	\$36,889	-
Extra cab 3.0 diesel	\$38,933	\$40,711
Double cab 3.0 diesel/turbo diesel SR5	-	\$40,089/\$45,778
Double cab 3.4 V6 petrol SR5 man / auto		\$45,778/\$47,556
Land Cruiser 70	chassis/cab	hardtop
4.2 diesel	\$45,751	\$54,311
Land Cruiser Prado	3.0 RV/VX diesel – manual or auto	\$59,111 to \$69,333
	4.0 VX V6 petrol auto	\$69,333
Land Cruiser Wagon	4.2 RV diesel manual	\$67,377
	4.2 VX turbo diesel auto	\$103,111

**2.20.16 Cultivation Implements**

**Ploughs**

*Dan Cosgrove Ltd:*

Fully Mounted Reversible Ploughs		
Multi-	121 Traction bolt 3 to 5 furrow/180 Traction	from \$19,220/\$41,585
Master	bolt 5,6,7 furrow	
Vari-	151 Non stop hyd. 3 to 5 furrow/180 Non	from \$29,090/\$49,455
Master	stop hyd. 5,6 furrow	
Semi-Mounted Reversible Ploughs		
Vari-Manager	Non stop hydraulic 5 to 8 furrows	from \$66,910 to \$89,610
Challenger	Non stop hydraulic 7 to 12 furrows	from \$95,100 to \$140,675

*Lemken: (C.B. Norwood)*

Mounted Reversible Ploughs:

Europough 5,6,7	2 to 5 furrow	from \$19,875
Vari-Europough 5,6,7	3 to 6 furrow	from \$26,424

*Overum: (Landpower NZ Ltd)*

Fully Mounted Conventional Ploughs

CT388F/488F/488H	3/4/4 furrow	\$11,000/\$14,750/\$17,750
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Semi-mounted conventional ploughs – automatic hydraulic release with hydraulic vari-width adjustment 12” to 20”

DL4108/5108H	4/5 furrow	\$24,850/\$27,850
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Reversible fully mounted ploughs - “Xcelsior” Range

- Fully mounted shear bolt release

CX390/490F/DX590F	3/4/5 furrow	\$19,500/\$23,350/\$30,350
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- Fully mounted hydraulic release

CX490H/DX490/590H	4/4/5 furrow	\$28,850/\$33,500/\$38,500
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- Vari-Flex Fully mounted hydraulic release, hydraulic vari width

DX490H.V/DX590 H.V	4/5 furrow	\$38,500/\$43,750
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Reversible semi mounted ploughs

CXL6100/7100/8100H	6/7/8 furrow	\$49,950/\$54,950/\$59,950
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*Kverneland: (European Tractors & Machinery)*

BB 85-5	Conv 5 furrow, auto reset, vari width	\$26,890
AD 85-4	Conv 4 furrow, auto reset, vari width	\$18,310
MZ 80-4	Conv 4 furrow, shear bolt	\$8,760
LD 85-4	Rev 4 furrow, shear bolt	\$22,890
ES 80-4 /EO 85-6	Rev 4/6 furrow, auto reset, vari width	\$29,940/\$60,855

**Chisel Ploughs and Subsoilers**

*Aitchison (Reese): ‘Earthquaker’ Soil Aerator*

Double Beam Model	Frame width (metres)	without coulters	with coulters
No. of tines			
3	1.83	\$2,995	\$4,195
4	1.83	\$3,595	\$5,095
5	1.83	\$4,195	\$6,195
5	2.40	\$4,595	\$6,495
7	2.40	\$5,695	\$8,395
Optional extra	Plain roller, Crumbler roller (1.83/2.4 m)		\$1,775/\$1,895

*Clough:*

950 Goliath chisel plough/cultivator - 7 tine (2.7 m) to 15 tine (4.65 m)	\$7,472 to \$10,915
300 Panaerator subsoiler plough 3 to 7 legs (with coulters and roller crumbler)	\$6,880 to \$12,390

## Discs

### *Dan Cosgrove Ltd:*

Cosgrove trailing discs - 32 / 36 blade	\$14,440/\$16,160
Discover XM (28-44) Hydraulic tandem heavy discs - 3.2 to 4.8 m	\$45,040 to \$51,965
Discover XS (24 – 28) Mechanical tandem heavy discs	\$38,075 to \$39,010
Disc cage rollers for XM (32 – 44)	\$10,395 to \$10,745

### *Kverneland: (European Tractors & Machinery)*

DVP-A315/ DVB-A450	3.15m /4.5m Offset discs, hydraulic adjustment	\$29,990/\$53,990
DXA-A450	4.5m Tandem discs, hydraulic adjustment	\$54,900
DXL-A315	3.15m Tandem discs, mechanical adjustment	\$29,990

### *Gaspardo: (European Tractors & Machinery)*

GA HX4 / GA HX6	4m / 6m Tandem discs, hydraulic adjustment, c/w cage roller	\$53,900/\$86,900
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## Cultivators

### *Dan Cosgrove Ltd:*

Mixer stubble cultivators	
Mixer 7 traction bolt, 7 tines, 6 discs, 3 m working width, 550mm tube roller	\$17,660

### *Speciality Machinery (Marton) Ltd.:*

Rollstar inter row cultivators – option of solid or hydraulic fold toolbar	
2 row to 8 row	from \$6800

### *Breviglieri: (C.B. Norwood)*

Inter-row cultivator: MG4	45 to 100 hp	\$4,100 to \$7,875
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### *Clough:*

#### 920 Mounted Maxi-Till standard models with crumbler:

2.53m to 4.13m, 22 and 38 tine	\$3,260 to \$4,540
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#### 929 Contura – Foldup mounted Maxi-till

4.25m to 5.6m, 42 to 56 tine	\$7,904 to \$9,032
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### *Kuhn: (Dan Cosgrove Ltd) Power tillers – up to 200hp*

EL 201-300 Cultirotor – L Blades/ EL 201-400 Cultirotor – L blades	\$29,840/\$32,980
EL 201-300 Cultiplow Angles Tines/ EL 201-400 Cultiplow Angles Tines	\$31,785/\$35,720
Compulsory equipment	
Maxi crumbler roller 300cm/400cm	\$1,730/\$2,080
Packer roller/Maxi packer roller 300cm/ Maxi packer roller 400cm	\$2,745/\$3,815/\$5,81

*Kverneland: (European Tractors & Machinery)*

TLA-4-1	4m spring tine cultivator, base unit	\$10,330
TLA-6-3	6m as above, c/w levelling board and roller	\$18,875

*Gaspardo: (European Tractors & Machinery)*

GA-DRT40H / GA-DRT60H	4m / 6m trailing seedbed cultivator	\$37,900/\$56,900
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**Tine Cultivators**

*Kverneland: (European Tractors & Machinery)*

CLC-9-1	9 tine auto reset chisel plough, 2.5m	\$8,000
CLC-13-1	13 tine auto reset chisel plough, 3.6m	\$10,700
CLD-7-1	7 tine/disc stubble incorporator, 3m	\$20,900

*Lemkin: (C.B. Norwood)*

Terra Disk mounted tine and disc cultivators	\$13,595 to \$17,735
Quartz / Rubin	\$15,570/\$26,265

*Clough:*

940 Agri-tiller Coil Tine Cultivator

		with crumbler	without crumbler
2.06 m	9 tine	\$3,394	\$3,110
2.50 m	11 tine	\$4,711	\$3,461
2.96 m	13 tine	\$5,268	\$3,957
3.40 m	15 tine	\$5,767	\$4,415
3.86 m	17 tine	\$6,261	\$4,919

**Rotary Hoes**

*Maschio: (European Tractors & Machinery)*

MG L-105 / MG W-125	25hp 1.05m / 35hp 1.25 m	\$3,250 / \$3,790
MG U205/ MG C250	80hp 2.05 m / 120hp 2.5m	\$8,390 / \$12,250
MG SC300	180hp 3.0m	\$18,490
MG G400	250 hp 4.0m, oil cooler	\$38,990
MG 300P Super Cobra	3.0m, 180 hp, straight blades, packer roller	\$23,490
MG Panterra 570C	270hp 5.7m folding c/w cage roller	\$64,990

*Kverneland: (European Tractors & Machinery)*

CLS 100	1m 35hp	\$3,450
GS 120-235	2.5m 120hp	\$13,490
GS 250-285	3m 250hp	\$22,990

*Breviglieri: (C.B. Norwood)*

Rotary Hoes			
B25s	1.05/1.25 m	15 to 30 hp	\$3,895 to \$3,995
B35s	1.45 m	25 to 35 hp	\$4,495
B60v	1.55/1.80 m	35 to 60 hp	\$7,995 to \$8,595

## Power Harrows

*Kuhn: (Dan Cosgrove Ltd.) HR Power Harrows –*

Up to 140hp foldable model. Price includes levelling bar and cam clutch		
HRB 252 D	with crumbler roller / with packer roller	\$18,965/\$19,950
HRB 302 D	with crumbler roller / with packer roller	\$21,860/\$22,990
Up to 250hp Price includes levelling bar and cam clutch		
HR 3003 D	c/w crumbler roller, packer roller/maxi packer	\$25,685/\$26,815/\$27,895
HR 3503 D	with maxi crumbler / with maxi packer	\$28,855/\$31,560
HR 4003 D	with maxi crumbler / with maxi packer	\$32,945/\$36,045
Up to 280hp – foldable model. Price includes levelling bar and cam clutch		
HR 4003/4503 DR	with maxi packer	\$55,890/\$61,390
HR 5003/6003 DR	with maxi packer	\$63,320/\$79,445
Packer Roller	3.0 m	\$2,760
Maxi Packer	3.0/3.5/4.0 m	\$3,840/\$4,660/\$5,190
Crumbler Roller	3.0 m	\$1,630
Maxi Crumbler	3.0/3.5/4.0 m	\$1,740/\$1,955/\$2,090
Levelling Bar	3.0/3.5/4.0 m	\$1,075/\$1,130/\$1,140

*Breviglieri: (C.B. Norwood)*

Leader	2.50 m (100")	80 to 140 hp	\$18,560 to \$20,725
	3.00 m (120")	80 to 140 hp	\$20,525 to \$23,270
Magnum	3.00 m (120")	100 to 220 hp	\$24,264 to \$27,324
	3.50 m (140")	110 to 220 hp	\$27,525 to \$30,390
	4.00 m (160")	120 to 220 hp	\$32,100 to \$34,445

*Lemken: (C.B. Norwood)*

Model	Size		Price
Zirkon 7	3.0m	140hp	\$20,675 to \$25,600
Zirkon 9	3.0m	200hp	\$24,955 to \$29,880

*Amazone: (Landpower NZ Ltd)*

With cage rollers, tooth packer rollers, tyre packer rollers or wedge ring rollers:-		
KE253	2.5m power harrow	\$14,800 to \$19,800
KE303	3.0m power harrow	\$17,000 to \$23,600
KE403	4.0m power harrow	\$24,000 to \$27,800

*Kverneland: (European Tractors & Machinery)*

NG 250M4-CR	2.5m 120hp, cage roller	\$14,900
NG 300H4-PR	3.0m 180 hp, packer roller	\$23,900
NG 350H4-CR	3.5m 180 hp, cage roller	\$24,900

*Maschio: (European Tractors & Machinery)*

MG Bravo 2500C	120hp 2.5m, cage roller	\$14,250
MG DM 3000P / 500C	200 hp 3.0m packer roller /3.5m cage	\$23,490/\$24,490
MG MEGA 4000P	250hp 4.0m, packer roller, oil cooler	\$39,900
MG Aquila 5000P	250hp 5.0m, folding, packer roller	\$64,900
MG Jumbo 6000P	350hp 6.0m, folding, packer roller, oil cooler	\$95,500

## Inter Row Cultivators

*Maschio: (European Tractors & Machinery)*

MG K-L2	2 row rotary cultivator	\$8,990
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## Harrows

*Lyndon Harrows:*

“Lyndon” Chain Harrow

1.5 to 2.1 m width – 10 and 12 mm square (suitable for motorbikes)	\$535 to \$735
2.4 to 4.2 m width – 10, 12 and 16 mm square	\$690 to \$2,395

## Spiked Chain Harrows

12 mm Round, 6' x 6' to 12' x 8'	\$705 to \$1,795
16 mm Round, 8' x 8' to 14' x 8'	\$1,675 to \$2,495
20 mm Round, 8' x 8' to 14' x 8'	\$2,310 to \$3,595

## Tripod and ‘Lyndon’ Chain Harrows

10/12 mm square chain, 2.4 to 4.2 m	\$2,095 to \$3,725
16 mm square chain, 3.0 to 4.2 m	\$3,625 to \$4,935

## Standard Models

	8'	10'	12'
12 mm round and 10 mm square	\$1,125	\$1,380	\$1,710
12 mm round and 12 mm square	\$1,355	\$1,575	\$1,880
16 mm round and 12 mm square	\$1,700	\$1,995	\$2,340
16 mm round and 16 mm square	\$2,455	\$3,000	\$3,355

## Round Ring Chain Harrow

12 mm round, 8' x 3' to 12' x 3'	\$495 to \$660
16 mm round, 8' x 6' to 12' x 6'	\$950 to \$1,205
20 mm round, 8' x 8' to 14' x 8'	\$2,190 to \$3,595

## Round Ring Contractor’s Harrow

24 mm round material, 8' x 8' to 14' x 8'	\$2,705 to \$4,625
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## Utility Harrows

10, 12 and 16 mm diameter, round, 7' to 14'	\$395 to \$985
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## Pea Harrow / Potato Harrow / Organic Weed Harrow

	\$230 to \$250
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## Diamond Harrows

16 mm tine/20 mm tine	\$310/\$355
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## Zig Zag Harrows - high tensile tines

35kg 16mm tine / 45kg 20mm tine	\$285/\$320
Bars – 3 / 4 / 5 leaf	\$315/\$365/\$420

Zig Zag Harrow sets	
3.1m, 3 leaf and bar 16mm/20mm	\$1,155/\$1,270
4.05 m, 4 leaf and bar 16mm/20mm	\$1,485/\$1,640
5.05m, 5 leaf and bar 16mm/20mm	\$1,820/\$1,995

Horse training track harrows - blade type harrows that cut into hard tracks

Bolt on 320x70x12, 2 leaf and bar / 3 leaf and bar	\$1,475/ \$2,205
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*Speciality Machinery (Marton) Ltd.:*

Comb Harrow (tine weeder) – suitable for organic cropping

2m to 12m coverage	from \$3,200
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**Soil Looseners**

*Kuhn: (Dan Cosgrove Ltd)*

DC 300 with long PTO shaft and standard delta /wide delta share	\$12,010/\$12,775
DC 400 with long PTO shaft and standard delta /wide delta share	\$16,265/\$17,075

*Amazone: (Landpower)*

Deep Loosener

TL302/402/452	3.0/4.0/4.5m	\$8,300/\$11,300/\$11,450
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**Rollers - Cambridge Rollers**

*Aitchison / Reese:*

Cambridge Roller	3m / 3.6m	\$4,995/\$5,995
Self-Transporting Roller	3m / 3.6m	\$10,495/\$12,495

*Duncan: (Clough Group)*

310 Roller	8' / 9' / 10' - standard rings complete with hydraulic wheels	\$9,300 to \$9,955
	8' / 9' / 10' - standard rings less wheels	\$6,785 to \$7,560

*Kverneland: (European Tractors & Machinery)*

RTG5-CB	5.25m, 3 section, hydraulic folding	\$21,900
RTG7-CB/Level	7.25m, 3 section, hydraulic folding c/w level boards	\$36,800

*Gaspardo: (European Tractors & Machinery)*

GA CW6355	6.3m, 3 section hydraulic folding	\$22,900
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**Heavy Rollers**

*Rakaia Engineering*

Water Ballast Rollers

Rolling Width	Weight - full (kg)	
2.4 metres	7200	\$8,050
3.05 metres	8500	\$8,495
3.05 metres	8650	\$8,895
3.05 metres	11700	\$11,060

3.05 metres	11900	\$11,940
3.66 metres	11800	\$12,325
3.66 metres	13600	\$13,480
3.66 metres	13800	\$14,360

## Field Rollers

*Aitchison / Reese:*

Weight transfer roller	2.4m / 2.75m	\$7,995/\$8,995
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## 2.20.17 Planting Implements

### Drills and Seed Boxes

*Aitchison / Reese:*

Seedmatic 3000 seed only drills

Linkage 16 to 24 row	2.4 to 3.6 m	\$13,995 to \$20,495
Trailed 16 to 24 row	2.4 to 3.6 m	\$17,245 to \$23,745
Coulter/Linkage 16 to 24 row	2.4 to 3.6 m	\$17,495 to \$25,995
Coulter/Trailed 16 to 24 row	2.4 to 3.6 m	\$20,745 to \$29,245

Seedmatic 3100 seed and fertiliser drills:

Linkage 16 to 24 row	2.4 to 3.6 m	\$13,975 to \$18,706
Trailed 16 to 24 row	2.4 to 3.6 m	\$19,745 to \$26,995
Coulter / Linkage 16 to 24 row	2.4 to 3.6 m	\$19,995 to \$27,245
Coulter / Trailed 16 to 24 row	2.4 to 3.6 m	\$23,245 to \$32,745

Seed and fertiliser boxes for rollers, powers harrows etc:

Seed only	2.0m to 4.0 m	\$5,995 to \$7,995
Roller drills, no transport wheels	3.0 m "ECO"	\$13,995
Roller drills hydraulic transport	3.0m / 3.6 m sowing	\$22,995 to \$24,995
Seedking Professional No Till Drill	3 m 22 run (133 mm)	\$59,995
	4 m 24 run (166 mm)	\$65,995
Grassfarmer Pasture Drill	2.1m 14 run	\$9,995 to \$12,995
Interseeder Professional		
- Seed only drill, linkage	3.0m 22 row	\$23,495
- Seed only, disc coulter, linkage	3.0m 22 row	\$28,495
- Seed only, trailed	3.0m 22 row	\$26,995
- Seed only, disc coulter, trailed	3.0m 22 row	\$31,995
- Seed & fertiliser, linkage	3.0m 22 row	\$26,495
- Seed & fertiliser, disc coulter, linkage	3.0m 22 row	\$31,495
- Seed & fertiliser, trailed	3.0m 22 row	\$29,995
- Seed & fertiliser, disc coulter, trailed	3.0m 22 row	\$34,995
Achy Box – 3 outlet box (40 litre)/5 outlet box (60 litre)		\$999 to \$1,195

*Duncan: (Clough Group)*

Enviro Multiseeder drill 15 to 23 run triple disc		\$53,290 to \$69,200
720 Quantum arable seeder	17 to 23 run hoe coulter	\$36,884 to \$43,032

	17 to 23 run double disc	\$40,017 to \$47,883
320 roller drill	8' / 9' / 10' – with hydraulic wheels	\$19,874 to \$21,910
	8' / 9' / 10' – no hydraulic wheels	\$17,500 to \$19,290
Duncan renovator	19 run seed and fertiliser c/w disc	\$30,700

*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 m, 31 tine	Single box (seed only)	\$25,000
	Twin box (seed and fertiliser)	\$31,600
Series 240 - 2.4 m, 15 tine	Single box (seed only)	\$11,500
Series 150 - 1.5 m, 9 tine	Single box (seed only)	\$7,800

*Taege Engineering Ltd:*

LE (Light drill – electric drive )	single and double options	2 Toolbar	3 Toolbar
120cm	Seed tray, controller set manually by the operator	\$5,200	\$5,700
140cm	against calibration chart and constant ground speed,	\$5,850	\$6,375
160cm	as in spraying weedicide / insecticide. Ground-	\$6,500	\$7,065
180cm	Truth GT computer extra. Single box standard	\$7,150	\$7,770
200cm	(double box 60% more). Three point linkage /	\$7,800	\$8,490
240cm	trailing option. 300mm pneumatic depth wheels.	\$9,100	\$9,975
	Two Tool Bar -155mm row spacing. Three Tool Bar - 121mm row spacing.		

**Heavy Duty Seed Drills 240 to 360M Series**

Series 240 (20mm)	Single Box	\$16,900
	Double Box	\$22,900
Series 300 (25 mm)	Single Box	\$19,300
	Double Box	\$25,500
Series 360 (30 mm)	Single Box	\$24,250
	Double Box	\$31,050

**Direct Drills**

*Kuhn: (Dan Cosgrove Ltd)*

Working widths of 3m to 6m with 18 to 38 rows. Triple disc system.	
SD 3000 P20R	\$93,480
SD 4000 P26R	\$121,215
Disc markers (hydraulically folding) for SD 3000/SD4000	\$3,430/\$3,510
Reducing head 26/13 for SD4000 26R	\$340
Slug pellet hopper	\$3,360

**Precision Drills**

*Amazone: (Landpower NZ Ltd)*

**Seed Drills – Pack Top Seed Drills**

AD253/AD303	20/24 row	2.5/3.0 m	\$23,000/\$26,500
AD403/ADP453	32/36 row	4.0/4.5 m	\$34,000/\$39,900

**Seed Drills – D9 Super Seed Drills 3 point linkage**

D930/D940/D950	25/33/36 row	3.0/4.0/4.5 m	\$16,500/\$21,900/\$24,900
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**Combi Single Pass Till/Drills (complete system machine)**

Combi 3/4	3.0/4.0m	\$46,300/\$61,000
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**Seed Drills – Pneumatic**

AD-PL 303	Airstar Progress Economy 24 roll disc coulters	3.0 m	\$28,000
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	\$37,900
AD-P 452	Airstar Profi 36 roll disc coulters	4.5 m	\$39,900

**Transplanters***Transplant Systems Ltd: (prices ex-Christchurch/Auckland)*

RT-2 transplanters	Two/three row	\$11,700/\$16,600
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

**Potting Machines***Specialty Machinery (Marton) Ltd:*

For nursery use, filling pots or planter bags.		
Javo range		from \$15,000

**Potato Planters***Landpower NZ Ltd:*

Grimme Potato Planters	GL32B 2 row cup planter	\$34,900
	GL34Z 4 row trailed planter	\$67,000
Structural Belt Potato Planters	- 2 row tipping hopper model (850kg hopper)	\$40,000
	- 4 row tipping hopper model	\$70,000

**Bed Formers***Specialty Machinery (Marton) Ltd:*

SML 3 point linkage models. Bed sizes to suit	from \$1,800
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**Polythene Film Layers***Specialty Machinery (Marton) Ltd:*

SML 3 point linkage models	from \$1,990
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## 2.20.18 Harvesting Equipment

### Lifters, Diggers and Harvesters

#### *Grimme Potato Harvesters: (Landpower NZ Ltd)*

Dominator	SE7520 single row harvester, 2.2 tonne bunker	\$133,000
	SE7530 high capacity single row harvester, 3.5 tonne bunker	\$148,000
	SE7540 high capacity single row harvester, 4.5 tonne bunker	\$160,000
Variant DL 1700	two row harvester	\$178,000

#### *Midland Machinery: Schumacher Crop Lifters – (ex-Christchurch)*

Button type lifters (blue)/ Spring lock lifters (orange)	\$42.00/\$44.85
Mounting reel with bolt and nut	\$5.60

#### *Specialty Machinery (Marton) Ltd:*

Bulb and lily diggers	
SML 3 point linkage models	from \$7,000

### Windrowers

#### *Landpower NZ Ltd:*

Grimme RL1500	\$55,000
Grimme Combi star CS1500/CS1700	\$120,000/\$123,000

### Combine Harvesters

#### *Landpower NZ Ltd: (prices vary with size and specifications)*

Mega 204 Combine + 6 m Dominator/Mega front	\$288,000
Mega 208 Combine + 6 m Dominator/Mega front	\$310,000
Lexion 430 Combine + 6 m Lexion front	\$333,000
Lexion 450 Combine + 6.6 m Lexion front	\$369,000

### Grain Augers:

Standard 40 ft (12.2 metres)	8" diameter \$4,600 and 10" diameter	\$5,500
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## 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	\$180,000 to \$220,000
	D4G XL	7800	Cat 3406	60/80	2400	\$205,000 to \$225,000
	D5G XL	8904	Cat 3406T	67/90	2400	\$425,000 to \$450,000

## 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:*

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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	\$4,410 to \$6,615

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**2.20.21 Other Farm/Orchard Equipment**

See also *Section 2.19.8, Fencing Tools and Equipment.*

**Waterblasters**

*Ag Equipment Specialists:*

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Hurricane Complete, tractor driven,		
250/500 litre – tanks	21.5 to 27.5 litres per minute, 2000 psi	\$3,150 to \$4,195
Tornado-motorised	1750 to 4300 psi, 1 to 30 litres per minute, 5 -24hp	\$1,695 to \$8,950
Electro-blast electric	1400 to 3000 psi, 9 to 30 litres per minute (single and 3 phase)	\$1,695 to \$6,450

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Steam Cleaners (Hot/Cold Water Blasters)

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Albertt Medijet 130,	1740 psi, 9 litres per minute	\$3,250
Albertt Compact & Maxijet	1740 to 3000 psi, 11 to 21 litres per minute (single and three phase)	\$3,950 to \$6,500

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*Croplands Equipment Ltd:*

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Electric	Bravo pressure cleaner, 240 volt, 8 litres per minute capacity	\$550
	240 volt, Blitz, 11 litres per minute	\$960

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*Kanters Engineering & Machinery Ltd.:*

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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

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**Mulchers**

*Breviglieri: (C.B. Norwood)*

Straw and Scrub Mulchers:

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Hurricane H80 – 160	1.60 m (5’)	50 to 100 hp	\$8,485
Hurricane H80 – 200	2.00 m (6’ 5’)	50 to 100 hp	\$9,470
Hurricane H80 – 230	2.30 m (7’ 5’)	60 to 100 hp	\$10,565
Hurricane H80 – 280	2.80 m (9’ 2’)	80 to 100 hp	\$11,995

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Orchard and Park Mulchers:

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Turbo T100 – 155	1.60 m (5’ 3’)	40 to 90 hp	\$9,095
Turbo T100 – 180	1.80 m (6’)	50 to 90 hp	\$9,535
Turbo T100 – 200	2.00 m (6’ 7’)	60 to 90 hp	\$10,125
Turbo T100 – 220	2.20 m (7’ 2’)	60 to 90 hp	\$11,215

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*AgMark: Nobili Mulchers*

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BNE 120	1.2 m orchard mulcher	\$5,695
TL-150	1.47m park and small orchard mulcher	\$4,995

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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:*

Stihl:	Bar Length	Price
40cc	41 cm (16")	\$617.78
32cc	36 cm (14")	\$573.33
45cc	41 cm (16") to 46 cm (18")	\$928.89
50cc	46cm (18")	\$1,017.78
60cc	51 cm (20")	\$1,240
65cc	51 cm (20")	\$1,328.89
72cc	56 cm (22")	\$1,506.67
85cc	63.5cm (25")	\$2,084.44

### *Russell Thomas Chainsaws & Mowers:*

Dolmar Chainsaws:	Power rating/Bar length	Price
Utility PS34/40	33cc, 1.3kW/40cm (16")	\$535
Semi-Pro PS340/35	33cc, 1.4kW/35cm (14")	\$615
PS400/35	39cc, 1.7kW/35cm (14")	\$642
PS52/45	52cc, 2.4kW/45cm (18")	\$930
PS111/45	52cc, 2.4kW/45cm (18")	\$930
Professional PS6400HS/50	64cc, 3.5kW/50cm (20")	\$1,449
PS7300HS/50	73cc, 4.2kW/50cm (20")	\$1,575
PS7300HS/54	73cc, 4.2kW/54cm (22")	\$1,580
PS7300HS/60	73cc, 4.2kW/60cm (24")	\$1,590
PS7900HS/60	79cc, 4.6kW/60cm (24")	\$1,668
PS7900HS/70	79cc, 4.6kW/70cm (28")	\$1,698
PS9010/60	90cc, 4.9kW/60cm (24")	\$1,835
PS9010/74	90cc, 4.9kW/74cm (29")	\$1,845

## Brushcutters/Trimmers

### *Russell Thomas Chainsaws & Mowers:*

LT250 Line trimmer (Dolmar)	24.5cc, 0.73kW, curved shaft, loop handle	\$440
<i>Dolmar</i> Brushcutters/line trimmers:	Power rating	
MS20C Line trimmer	20cc, 0.58kW, straight shaft, loop handle	\$530
MS2501 Line trimmer	24.5cc, 0.73kW, straight shaft, loop handle	\$665
MS2810 Brushcutter	27.2cc, 0.84kW, straight shaft, loop handle	\$739
MS3200 Brushcutter	30.5cc, 0.95kW, straight shaft, U handle	\$834

## Air Compressors

*Heenan Engineering Company Ltd:*

Model PP9	from \$330
Model B3800	from \$990

## Portable Generators and Welders

*Fosters Outdoor Power Equipment Ltd:*

0.7kW to 8kW	\$666.67 to \$3,111.11
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*Lincoln Electric:*

Weldanpower 230 + PB	kA 1390	\$8,685.00
Weldanpower 230 + DR	kA 1409	\$11,962.00
SPR 4654		\$28,783.00

*Heenan Engineering Company Ltd:*

13 hp petrol driven 5 kVA	from \$2264.00
Hydraulic power packs with 3 hp electric motors	from \$1,745.00
Extension hose kits – 5 to 15 metres	\$190 to /\$370

## Small Engines

*Fosters Outdoor Power Equipment Ltd:*

Briggs and Stratton Engines

3.5HP to 35HP	\$426.67 to \$3,111.11
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## Pruning Equipment

*Levin Sawmakers Ltd:*

Pruning Chainsaws:	CS 3400/350T	34/35cc	\$617.78/648.00
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 to \$68.28
Gomtaro – Finetooth	13 teeth 30mm for smaller branches and dry wood, 240 mm to 300 mm		\$61.74 to \$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/30 mm		\$81.20/\$87.88
Super Accel	Lightweight folding pruning saw, 210mm blade with 7.5 teeth/30 mm		\$46.51
Zubat	Taper ground blade, 240 mm to 330 mm		\$79.22 to \$91.10
Ibuki	Curved sheath saw for larger branches, 390 mm		\$128.16
Extension Pole Saws:			
Hayauchu	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 330mm 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	\$104.73
Timbersaws Long Pole Pruning Saw - 2.9 m for 4 m pruning height	\$90.00
<b>Loppers</b>	
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 \$1,144.22

**Pasture Probes**

*Edwards and Williams Greenhouses Ltd.:* from \$995

**Implement Hitches**

*Taupo Engineering Ltd:* (North Island prices including freight)

Heavy Duty 3 point linkage instant hitch	\$583.00
Front end loader instant hitch	\$586.00
Implement saddles	\$174.00
Eezy Hitch (Trailer pickup – 3 point linkage)	\$538.00

**Effluent Pond Stirrer**

*Anderson and Rooney Ltd:*

Pearson PTO pond stirrer includes drive shaft and freight	\$6,200
Yardmaster electric stirrer pump – 4kW	\$2,100
A & R pontoon	\$700
Yardmaster pontoon	\$1,061

**Stump Chippers and Log Splitters**

*Giltrap Engineering:* (prices include freight to dealers yard )

Hydraulic Woodsplitter – 3 point linkage \$2,625 (NI), \$2,775 (SI)

**2.20.22 Safety Equipment**

*Croplands Equipment Ltd:*

Kasco helmet and portable filter	\$1,375
Kasco spray helmet	\$558
Breathalon spray suit	\$220

*N.Z. Safety Limited:*

Overalls (drill, polycotton, Hi-Visibility, flame retardant)	from \$37.95
Waterproof clothing (Tornado range, jackets, overtrousers and coveralls)	from \$25.95
Horticultural spray coveralls (PVC to breathable material)	from \$157.31
Class 4 ear protectors	from \$20.55
Safety Boots – Blundstone, Treddlite and Oliver Ranger	from \$84.45
Gumboots – Bata and Skellerup range	from \$49.00

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Respiratory –	
- Maintenance free dust / mist respirators	from \$2.91
- Spray kits (1/2 mask)	from \$79.12
- Portable powered air / Supplied air units	from \$750.00
Hand Protection – PVC chemical gloves	from \$3.62
Eye Protection – chemical goggles	from \$10.43

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*Levin Sawmakers Ltd:*

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Arborist chainsaw trousers	\$180.00
Chainsaw trousers	\$115.45
Chainsaw chaps	\$132.45
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- Lexa dust goggles	\$27.50 to \$34.50
- Skyper Supravision	\$26.05
- Forestry mesh goggles	\$33.50

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**Fire Extinguishers** (N.Z. Safety Limited)

1kg Fire Extinguishers Dry Powder	from \$35.00
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**2.20.23 Protection (crop)**

*Electro-Tek Engineering Ltd:*

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Scarecrow Gun Zon Mark 4	- complete unit	\$851 to \$921
	- gun only/timer only	\$535/\$147
	- tripod (3 sizes)	\$169 to \$239

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*Evergreen Horticulture and Hydroponics Ltd:*

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Birdnetting white or black	5m/10m x 100m roll	\$355.60/\$711.20
Birdnetting clips	Pack of 200	\$38.96

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**Tarpaulins**

*Straitline Canvas:*

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Hay Covers	- Pextra	\$10.70 per square metre
Trucks	- PVC tarpaulin	\$22.00 per square metre

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*Tarpaulin Makers (B.O.P):*

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Size	Pextra	Ripstop PVC
2.7 x 7.3 m	\$181.00	\$358.00
3.6 x 7.2 m	\$240.00	\$416.00
5.4 x 11 m	\$547.00	\$820.00
7.3 x 11 m	\$670.00	\$1233.00

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## 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 \$7,500 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	\$6,090 per bail
Site preparation and power	\$600 per bail
Effluent disposal	\$455 per bail
Total cost	\$7,150 per bail

##### **Rotary Turnstyle**

Costs for dairies that involve all buildings, platform and yards and associated works range from \$6,000 to \$7,870 per bail (excluding milking plant).

Building cost estimates: (depends on preferred style and type of material used)

Building (complete including all rooms and concrete)	\$3,150 to \$4,200 per bail
Platform and associated works	\$1,575 to \$1,680 per bail
Electrician	\$420 to \$525 per bail
Plumber	\$250 to \$315 per bail
Yard pipework and associated gates	\$420 to \$945 per bail
Earthworks (typically 3,500 square metres)	\$3.50 to \$4.20 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:	\$72 - \$103	\$82 - \$108	\$87 - \$113	\$103 - \$134	\$124 - \$165	\$134 - \$185
Yard Concrete	\$16 - \$18	\$17 - \$19	\$20 - \$21	\$21 - \$23	\$27 - \$29	\$32 - \$35
Yard Pipe Work	\$11 - \$13	\$12 - \$14	\$13 - \$16	\$15 - \$17	\$19 - \$21	\$23 - \$25
Electrical	\$9.50 - \$15	\$10 - \$15	\$12 - \$17	\$13 - \$18	\$17 - \$21	\$19 - \$26
Plumbing	\$5 - \$9.50	\$6 - \$10	\$6 - \$10	\$7 - \$12	\$7 - \$12	\$8 - \$13
Platform and Milking Equipment	\$92 - \$125	\$103 - \$142	\$108 - \$159	\$133 - \$182	\$164 - \$225	\$194 - \$275
Total	\$205 - \$284	\$230 - \$308	\$246 - \$336	\$292 - \$386	\$358 - \$473	\$410 - \$559
Per bail	\$7.32 - \$10.15	\$7.19 - \$9.63	\$6.83 - \$9.33	\$7.30 - \$9.65	\$7.16 - \$9.46	\$6.83 - \$9.32

Site preparation, all weather access to site, water supply to site, power supply to site, effluent disposal from site are not included.

**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	\$13,020 to \$18,900
Shed internals, 6 various plans available, example of two plans:	
Plan B - 2.4m $\frac{1}{4}$ circle, 3m workrace, 6 internal subdivision panels, 1.8m door, 4 x 1.2m doors.	\$9,120
Plan D - 4.5m $\frac{1}{2}$ circle, 3m workrace, 7 internal subdivision panels, 1.8m door, 4 x 1.2m doors, 0.8m door, 0.8m triangle	\$11,688

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 \$300 to \$350 per square metre to erect. Covered yards (building component only - not including cost of yards) cost \$75 to \$80 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, internal painting and accommodation. 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 including 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:*

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Cattle loading races	\$1,769
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## Headbails

*Holdem Cattle Handling Equipment Ltd:*

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Camira calf bail	450mm wide, ideal for calves up to 3 months, race width 400 to 500mm	\$475.95
660 head bail	Good for light work, race width 600 to 720mm	\$729.95
800 head bail	800mm wide, race width 720 to 900mm, left or right hinged	\$829.95
Statesman cattle handler	660mm head bail + nosebar + S/S pulley, 2x draft gates, 1x vet gate. (gates c/w slam latches and anti-backing ratchets)	\$3,999.95
Slam-Close latches	Fully galvanised, wood or steel gates	\$59.95 to \$79.95
Nose bar attachments	Attaches to all models of bail, 3 sizes	\$199.95
Anti-backing ratchets	1200mm long, fits any gap between rails of 125 to 225mm	\$329.95
Aautomatic anti-backing arm		\$329.95
Sliding gates	Used to hold stock on a weighing platform	\$599.95

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*Stockyards Inc: (prices are ex -Te Kauwhata)*

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Manual 'V'	\$1,095
Warwick Headbails <i>Drover</i>	\$2,800

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## Crushes

*Stockyards Inc: (Prices are ex -Te Kauwhata)*

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Warwick Cattle Crush - Drover models	\$6,800 to \$7,400
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## 2.21.6 Stockyards - Deer

*Kean Deer Yards:*

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Outer Yards, various plans available	
Plans D,E and F, 40m yard walls, 3.6m gate, 3 x 3m gates, 1.8m gate, loading ramp	\$10,960

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Yards with 500 head capacity (9m x 7.5m) would cost in the region of \$21,600 to \$30,000. This would include some holding pens outside the shed.

## Equipment

*Kean Deer Yards:*

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Gates	1.2m/2.4/3.6/ wide 2.2m high	\$180/\$350/\$505
Gate catches	12mm pin frame catch	\$16.50
	12mm pin, spring and flat/ 16mm pin, spring, and flat	\$8.50/\$9.50

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*Stockyards Inc: (ex Te Kauwhata)*

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Slam gate catch deer	\$23
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**Loading Race**

*Kean Deer Yards:*

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Work and weigh race, 3 m long x 800 m wide, curtain	\$2,255
Swinging work race, part of large pen, push into race situation, 2.7m gate	\$960
Scale race, weigh, record, and draft from one position.	\$1,890
Loading ramp, free standing	\$1,820

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**Crushes**

*C & F Industries:*

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Deer Crush	\$5,786
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*Heenan Engineering Company Ltd:*

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Heenan workroom hydraulically controlled deer handler	
Standard Model – fits between walls 3.1 m apart	from \$7,035
Short Model – fits between walls 2.6 m apart	from \$6,490
Super Gold model	from \$13,650
Wedge wall	from \$1,150
Semen collection facility available	

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*Kean Deer Yards:*

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Crushes	
Full circle 4m with two revolving doors, up to 8 exit doors	\$4,620
Half circle 4.5m with two revolving doors, up to 4 exit doors	\$3,300
Quarter circle 2.4m with one forcing door, 2 exit, 3 door panel	\$2,750
Octagon with 4 x 0.8m doors and walls	\$2,800
Crush, side loading, portable, padded	\$2,850

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**2.21.7 Stockyards - Sheep**

Price varies markedly depending mainly on capacity.

10' Super 750 ewe capacity    about \$12,000 to \$15,000

14' Yard 2200 ewe capacity    about \$19,000 to \$24,000

16' Yard 2600 ewe capacity    about \$22,000 to \$27,000

*Prattley Industries:* This example sheep yard is an average of *Prattley's* production line.

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Portable 10' Sheep Super Yard – includes 40 x (5'x36') alloy gates, diamond gate, L posts and 3 section, single lane handling race	\$14,304
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## Equipment

*Stockyards Inc:* (All prices are ex Te Kauwhata)

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
Adjustable sheep race	\$585.00

## Loading Ramps

*C & F Industries:*

Sheep - with adjustable undercarriage, removable drawbar, pneumatic tyres	\$1,832
- ramp only	\$976

## Docking Pens

*Cyclone:*

Complete pen with single side race 3.05m x 2.17m	\$870
- extra panel, 2.4m	\$90
- extra panel with drafting gate, 3 m	\$140

## Mothering Pens

*Calder Stewart:*

4 Bay	\$830
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## 2.21.8 Greenhouses, Growing Tunnels and Tunnel Houses

*Edwards & Williams Greenhouses Ltd.:*

Redpath Greenhouses

Commercial: 'Crop King' curved rafter truss house. Double ridge ventilation 30% roof area, twinskin covers, up to 4.5m stud height, crop support, doors, delivered.

Approximately 929 square metres - kitset from \$50.00 per square metre  
- constructed \$61.00 per square metre

Flower: Roof ventilated crop cover. Single skin, roll up side vents, doors etc.

Approximately 929 square metres, ultra heavy-duty kitset from \$38.00 per square metre

203 micron, 4 year warranty greenhouse covers constructed from \$46.00 per square metre

Crop Cover: Side ventilated arch roof design, single skin, up to 3 metre stud height.

Approximately 929 square metres, ultra heavy-duty kitset from \$24.00 per square metre

203 micron, 4 year warranty greenhouse covers constructed from \$32.00 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	\$796/\$880/\$1,156/\$1,280
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*Harford Greenhouses:*

Harford Propagator, single vent, 2.1 metre column, no gutters:

6 metres x 9/12/15 metres long	\$5,550/\$6,431/\$7,314
9 metres x 12/15/18/21 metres long	\$8,243/\$9,442/\$10,321/\$11,520

Harford Maxi Span, twin vents, 9.2 metre span, 2.1 metre column:

24/30/36/48 metres long	\$14,982/\$17,453/\$19,928/\$24,868
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Harford Super Maxi Span, twin vents, 12.5 metre span, 3.5 metre column:

24/30/36/48/60 metres long	\$25,023/\$28,574/\$32,138/\$39,103/\$46,854
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Sawtooth from \$42 per m<sup>2</sup>

Budget Span from \$42.00 per m<sup>2</sup>

Crop topper from \$27 per m<sup>2</sup>

Sliding doors \$485 per set

Wind and temperature controllers \$1,020 to \$7,199

*Kerilea Horticultural Systems Ltd:*

All frames priced and sold in packs of 25. Price ex factory Levin.

**Keri-Tough Cloche Plastic**

Frame width	Frame height	Price per pack	Roll width	μ	Roll length	Price per roll
0.6m	0.3 m	\$78.55	1.12 m	50	250 m	\$76.31
0.8m	0.5 m	\$98.33	1.62 m	50	250 m	\$106.26
1.0m	0.45 m	\$107.51	1.76 m	50	250 m	\$115.10
1.0m	0.55 m	\$116.94	1.96 m	50	250 m	\$112.26
1.5m	0.6 m	\$141.09	2.65 m	50	150 m	\$99.39
1.5m	0.75 m	\$156.95	2.65 m	70	100 m	\$85.10
2.0m	0.9 m	\$184.95	3.4 m	50/70	100 m	\$77.90/\$109.04
0.6m	0.55 m	\$98.33	2.0m	125	50 m	\$135.00
0.8m	0.65 m	\$116.94	3.0m	125	50 m	\$202.50
1.0m	1.0 m	\$156.95	4.0 m	125	50 m	\$270.00
1.3m	0.8 m	\$143.83				
1.8m	0.9 m	\$173.91				
End Frames (per single unit)						\$12.50 to \$15.10
Micro Mesh						
Micro 2L/3L/4L 2, 3, 4m widths			0 to 99 m <sup>2</sup>	\$1.65 per m <sup>2</sup>	100-199 m <sup>2</sup>	\$1.40 per m <sup>2</sup>
Micro 6L x 6m width/ 8L x 12m width						\$748 / \$864 per 100m roll
Micro 2 heavy x 2m width						\$212 per 100m roll
Micro 4 heavy x 4m width						\$212 per 50m roll

**Hi GroTunnels (relocatable crop covers)**

Available in 4m and 5m widths, includes full plastic and a door.

5m x 12 m length	\$2,620
5m x 16m length	\$2,950
5m x 20m length	\$3,279
5m x 24m length	\$3,609
5m x 36m length	\$4,597
5m x 48m length	\$5,586
5m x 60m length	\$6,575

*Tunnelworld:*

Townhouse Model:

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2.3m x 2m to 2.3m x 6m - all with 2 covers, solid ends	\$1,108 to \$1,462
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Mini Tunnelhouses

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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

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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

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Durafilm Saver D3 - 4, 6, 7 and 8 m widths (100 micron) - price per m <sup>2</sup>	
up to 74 square metres	\$1.80
75 to 199 square metres	\$1.40
over 200 square metres	\$1.00

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Durafilm Super D4 - 3, 4 and 8 metre widths (152 micron) - price per m <sup>2</sup>	
up to 74 square metres	\$2.40
75 to 199 square metres	\$2.20
over 200 square metres	\$1.90

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Duratough – 2 to 14 metre widths (200 micron) - price per m <sup>2</sup>	
up to 74 square metres	\$2.20
75 to 199 square metres	\$1.90
over 200 square metres	\$1.64

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*Placemakers:* Price per roll

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Polythene Black heavy duty 4m x 25m/4m x 50m	\$82.52/\$166.04
Agpac Polythene black 125 micron 2m x 50m	\$106.66
Agpac Polythene clear 125 micron 2m x 50m	\$155.55
Sellotape BGPVC joining tape 48mm x 30m 1410	\$5.77

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*Cosio Industries Ltd:*

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Black Polythene	
80µ, 1 to 4m width, 50m/100m length	\$26.30 to \$52.00
125µ, 1 to 10m width, 25 to 100m length	\$37.38 to \$297.67
250µ, 2 to 4m width, 25m/50m length	\$73.76 to \$117.96
Clear Polythene	
50µ, 2m/4m width, 50m/100m length	\$52.76
80µ, 1 to 5m width, 50m/100m length	\$33.90 to \$101.96
125µ, 1 to 4m width, 50m/100m length	\$53.76 to \$101.95
250µ, 2m/4m width, 50m length	\$101.43/\$202.86
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	

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Single/Twin 4m length	\$18.81 to \$41.91
Steeltight 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, 150µ/105µ	\$113.00 to \$376.30
Black polythene adhesive tapes - per roll	\$3.60 to \$7.00
- per carton of rolls (12, 24 or 36 rolls)	\$86.40 to \$126.00
Ducting	
Layflat polythene tube, clear	\$35.00 to \$107.56
Frametape	
Greenhouse film protection, white or clear	\$17.50 to \$38.60
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 \$161.36

### **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:*

Exal Alcatel Warming cables – complete with thermostat

Cable Size	
18 metres, 230 watt	\$213.00
28 metres, 350 watt	\$232.80
56 metres, 700 watt	\$382.25
94 metres, 1150 watt	\$546.50
101 metres, 1740 watt	\$577.75

Water proof glasshouse thermostats:

ET 0 - 40 Air sensing and propogation thermostat	\$80.00
Fitted with phase interruption plug	\$105.00
Exal ET 0-40 Three Stage	\$96.00

Stainless Steel Fan Heaters

300 series - horizontal	10kW / 15kW x 1400 rpm	\$1,250 / \$1,350
400 series - horizontal	20kW / 30kW x 1400 rpm	\$1,650 / \$1,750
500 series - upright or horizontal	20 to 40kW/30 to 60kW x 1400 rpm	\$2,650 / \$2,850

*Edwards and Williams Greenhouses Ltd.:*

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Environmental Controllers	from \$2,900
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*Richard Anderson Greenhouses Ltd.:*

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Propagation Heating	
- soil heating cables	\$101 to \$650
- Heatwave heating panels (made to order) e.g. 1m x 5m	\$600

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*Aquaheat Industries Ltd:*

Greenhouse heaters. Aquaheat<sup>®</sup> 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<sup>®</sup> 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:*

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Exal ventilation fansets:	
EL 600 series, fan plate model/wall fan model, 900 rpm, 3.01 m <sup>3</sup> per second	\$600
EM 50 series, three phase 430 rpm, 11.3 m <sup>3</sup> per second	\$1,250
Turbofan:	
Vortex turbofan, aluminium, 45 metre throw	\$310 to \$415

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*Kanters Engineering & Machinery Ltd:*

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Greenhouse Fans – 180 watt	\$289
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*Kerilea Horticultural Systems Ltd:*

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Ventilation Fans	
K500 Single phase, 180 watt, 2.35m <sup>3</sup> per second	\$460
K600 Single phase, 375 watt, 3.1m <sup>3</sup> per second	\$600
K1200 Three or single phase, 760w, 9.81m <sup>3</sup> per second	\$1,100 extra \$100 single phase

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*Evergreen Horticulture and Hydroponics:*

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Vortex – Horizontal greenhouse fan	from \$310
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**Glasshouse Watering**

*Cosio Industries Ltd:*

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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

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*Evergreen Horticulture and Hydroponics:*

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Propagation	
Balance arm misting controller	\$75.00
Minimist/ NZH Smartmist	\$191.00/\$391.11
Transformer, 24 volt	\$41.25
Solenoid valves, 24 volt x 20 mm	\$36.30

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Misting nozzles		range from \$1.50
<b>Plant Feeding</b>		
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		\$95.00
24 volt transformer		\$44.00
24 volt x 20 mm solenoid valve		\$38.00
Full control kitset complete with controller, transformer, solenoid valve, three misting nozzles, cable, connectors and instructions.		\$187.00

*Richard Anderson Greenhouses Ltd:*

<b>Misting Equipment</b>		
- 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 Series estimates ex Christchurch

Riversider	\$57,000 to \$69,000
Crawford 2 Bedroom	\$71,000 to \$75,000
Tararua	\$59,000 to \$63,000

Two Bedroom Homes estimates ex Christchurch

Sabine	\$79,000 to \$87,000
Wilkin	\$80,500 to \$87,500
Caples	\$82,000 to \$88,000

Three Bedroom Homes estimates ex Christchurch

Glenroy	\$88,000 to \$94,000
Greenstone	\$89,000 to \$95,000
Cascade	\$93,000 to \$98,000
Hollyford	\$93,000 to \$101,000

*Kiwi Cottage - Durobuilt: Range of 6 cottage styles – completed price*

One bedroom	\$17,199 to \$52,853
Two Bedroom	\$49,280 to \$73,392
Three Bedroom	\$80,326 to \$93,003

## 2.21.10 Garages

### *Durobuilt:*

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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 3.6m /5.4 metre steel carport	from \$1,031/\$1,330
9m x 6.3m steel carport	from \$2,132

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### *Versatile:*

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3.6m x 6.0m	\$4,900 to \$5,600
4.8m x 6.0m	\$5,600 to \$6,600
3.6m x 7.2m	\$5,500 to \$6,900
6.0m x 6.0m	\$6,700 to \$7,600
6.0m x 7.2m	\$7,400 to \$8,500
6.0m x 9.0m (workshop attached)	\$12,000 to \$16,000
6.0m x 12.0m (multibay)	\$12,400 to \$14,000

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## 2.21.11 Haybarns/Implement Sheds/Packing Sheds/Stables

### **Calf Rearing Sheds**

#### *Durobuilt:*

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6m /9m x 4m – 2.2m stud	from \$3,604/\$4,671
6m /9m x 6m – 2.2m stud	from \$4,156/\$5,324

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### **Implement Sheds**

#### Small Block Implement Sheds - 3m wide bays, 3m stud, open one side

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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

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#### Farm implement sheds - all steel, 4 m wide bays, 3m stud, open one side

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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

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8m x 12m	2 bays	from \$11,150
	Extra bay	from \$3,133
<b>Lean-to implement sheds - open across front</b>		
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**

<b>All steel, 4.0 m bays</b>		
17m x 15m	4 bays	from \$25,972
	Extra bay	from \$4,382
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
<b>Extras</b>		
Rolla Door		\$1,815
Egress Door		\$594
100mm concrete floor		\$40.89/m <sup>2</sup>

### *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, 4.5 metre 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

*Goldpine:* (All bays 4.5 metres wide)

6m deep x 4.2 to 3.6m high		6m deep x 3.6 to 3.0m high	
2 bay	\$3,822	2 bay	\$3,617
3 bay	\$5,107	3 bay	\$4,851
4 bay	\$6,392	4 bay	\$6,086
5 bay	\$7,801	5 bay	\$7,332
6 bay	\$9,100	6 bay	\$8,569
9m deep x 4.2 to 3.6m high		9m deep x 3.6 to 3.0m high	
2 bay	\$5,185	2 bay	\$4,917
3 bay	\$6,911	3 bay	\$6,587
4 bay	\$8,617	4 bay	\$8,236
5 bay	\$10,318	5 bay	\$9,879
6 bay	\$12,082	6 bay	\$11,587

*Versatile Buildings:*

	Zincalume	Coloursteel
9.0m x 6.0m kitset, 3 bay	\$4,300	\$4,800
13.5m x 6.0m kitset, 3 bay	\$5,400	\$6,100
14.4m x 6.0m kitset, 4 bay	\$5,900	\$7,400

Erection costs are approximately \$700 to \$800 per bay

*Calder Stewart Industries Ltd:*

Prices vary depending upon a number of design factors.	\$ per m <sup>2</sup>
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

*Woolaway Holdings Ltd:* Prices exclude freight, concrete floor, builders' travel and accommodation.

Implement sheds/ Hay barns (3.0 to 3.6 m high)

Two bay	54m <sup>2</sup>	\$5,568.17
Three bay	81m <sup>2</sup>	\$7,199.63
Four bay	108m <sup>2</sup>	\$8,911.71
Additional bays	27m <sup>2</sup>	\$1,712.08
Two bay back to back	108m <sup>2</sup>	\$9,273.45
Three bay back to back	162m <sup>2</sup>	\$12,160.20
Four bay back to back	216m <sup>2</sup>	\$14,979.53
Additional bays	54m <sup>2</sup>	\$2,819.33

## 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

*Dan Cosgrove Ltd:*

Model	Diam (m)	Overall height (m)	Bushel capacity	Metric tonnes		Capacity m <sup>3</sup>	Wholesale price
				Wheat	Barley		
15/3	4.58	3.78	1422	38	32	47.73	\$3,500
15/4	4.58	4.59	1820	49	41	61.06	\$3,900
15/5	4.58	5.41	2222	60	50	74.56	\$4,300
15/6	4.58	6.22	2620	71	59	87.89	\$4,900
18/3	5.49	4.04	2107	57	48	70.68	\$4,200
18/4	5.49	4.85	2678	73	60	89.86	\$4,700
18/5	5.49	5.67	3257	88	74	109.27	\$5,300
18/6	5.49	6.48	3829	104	87	128.44	\$6,000
18/7	5.49	7.29	4400	119	100	147.61	\$6,800
18/8	5.49	8.1	4972	135	113	166.78	\$7,600
18/9	5.49	8.92	5550	151	127	186.19	\$8,500
21/5	6.41	5.93	4535	123	103	152.13	\$6,700
21/6	6.41	6.74	5302	144	121	177.85	\$7,600
21/7	6.41	7.55	6081	165	139	203.98	\$8,300
21/8	6.41	8.36	6860	186	157	230.11	\$9,400
21/9	6.41	9.18	7648	207	175	256.56	\$10,400
24/5	7.32	6.2	6012	163	137	201.69	\$8,100
24/6	7.32	7.01	7029	191	160	235.78	\$9,200
24/7	7.32	7.82	8046	218	184	269.86	\$10,300
24/8	7.32	8.63	9061	246	207	303.95	\$11,200
24/9	7.32	9.45	10090	274	232	338.45	\$12,400

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	\$4,150
122	3.66	4.21	695	20	17	13	18	\$4,300
123	3.66	4.93	938	27	23	19	24	\$4,600
124	3.66	5.74	1191	33	29	24	30	\$5,100
125	3.66	6.55	1424	40	35	29	37	\$5,300
126	3.66	7.36	1667	46	41	34	43	\$5,600

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. (Kitset price - erection and transport costs POA.)

Tonnes Wheat	Tonnes Barley	Cubic metres	Overall Height	Price
<b>1.83 diameter with 60 degree centre draw hopper to 450 mm opening</b>				
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
<b>2.74 diameter with 45 degree centre draw hopper to 150 mm opening</b>				
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
<b>2.74 diameter with 60 degree centre draw hopper to 450 mm opening</b>				
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	\$2,959
Medium – 2.67m diameter x 2.4m high	\$3,597
Large – oval shape at 3.1m wide and 3.8m long x 2.72m high	\$4,142

All include door, vents, rail and fittings.

### 2.21.16 Piggeries

C & F Industries: (circular arch)

Bays	Length	Price
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 supplier charges \$200 per m<sup>3</sup> plus cartage.

## 2.21.18 Dog Motels

*Aabaas Industries:* (Prices are ex Christchurch factory)

	Motel	Kennel	Run
Small/Medium	\$322/\$465	\$166/\$240	\$156/\$225
Large/Extra large	\$507/\$542	\$273/\$294	\$234/\$248

## 2.21.19 Building Materials

### Roofing

*Placemakers:*

Corrugated Zinalume .40 762mm CVR 1.8m/3.6m	\$21.32/\$42.66 per sheet
Coralite XS corrugated clear 762mm x 1800mm/3600mm	\$25.77/\$50.66 per sheet
Marley Stormcloud spouting MS1.3 x 3m/ MS1.5 x 5m	\$22.21/\$37.32 per length
Marley Stormcloud spouting Joiner MS5	\$1.59 each
Marley 65mm RP65 / 80mm RP80 round downpipe - 3 m	\$14.21/\$15.99 per length

### Cement Products

*Higgins Redimix Concrete:* (ex-Palmerston North and Feilding)

Concrete Grade	19 mm (\$ per m <sup>3</sup> )	12 mm (\$ per m <sup>3</sup> )
10 / 15 / 17.5 / 20 Mpa	\$140 to \$160	\$150 to \$165
25 / 30 / 35 / 40 Mpa	\$170 to \$209	\$175 to \$214
Blockfill/Kerb Mix		\$188/\$170
Accelerator (calcium chloride)	per 1%	\$4.00 per m <sup>3</sup>
Non Chloride Accelerator	per 1% / per 2%	\$7.00 per m <sup>3</sup> / \$11 per m <sup>3</sup>
Superplasticiser		\$10.00 per m <sup>3</sup>
Fibre Mesh		\$25.00 per m <sup>3</sup>
Black Colour		\$60 per m <sup>3</sup>
Small load surcharge	<1.0m <sup>3</sup> / < 2.0m <sup>3</sup>	\$45.00 / \$30.00 per load

Dumpy Hire - \$45.00 per half day

Truck Hire - \$90 per hour

*Firth Industries Ltd:*

Hollow Masonry Blocks

	150 mm	200 mm
Standard/Half/Bond Beam/Half High Standard		
Christchurch*/Auckland/Hamilton	\$2.29*/\$2.02/\$2.02	\$2.77*/\$2.35/\$2.35

\*Includes freight to Christchurch metro

## Shingle Products

### *Higgins Concrete Ltd:*

Pea Metal (minimum charge \$60 per load)	\$20.00 per m <sup>3</sup>
River Run (minimum charge \$60 per load)	\$20.00 per m <sup>3</sup>
Gap 40 Basecourse (minimum charge \$75 per load)	\$23.00 per m <sup>3</sup>

### *Laings Gardenmakers:*

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Premix	\$18.95 per full scoop
Plastering/Bedding/Cylone sand	\$21.95/\$18.95/\$15.95 per full scoop
Chip 12mm / 16mm	\$18.95 per full scoop
Reject fine chip	\$12.95 per full scoop
20 mm stabilised topcourse	\$14.95 per full scoop
40 mm unstabilised topcourse	\$11.95 per full scoop
Ungraded/Graded rounds	\$12.95 per full scoop
Oamaru white scree	\$54.95 per full scoop

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### *Fulton Hogan:* (price per tonne)

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Sealing chip	G2 to G6	\$17.86 to \$21.07
Special chip	SC10/SC12	\$11.43/\$13.21
Sand	Natural/Plastering	\$18.39/\$27.21
	Fill/Cyclone/2A	\$14.62/\$16.15/\$24.67
Premix	(Blended) BM7 to BM20	\$15.83
Cement		\$12 per bag

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## 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, quantity discounts available)

Alders	\$3.15 to \$8.40 each
Poplars	\$1.15 to \$2.50 each
Pittosporum	\$3.15 each

*Appletons Tree Nursery:*

Note: Quotes will be given on large orders

	Price per 50+	Price per 1000
Cupressus lusitanica	\$0.69 to \$1.00ea	\$0.49 to \$0.67ea
Cupressus macrocarpa	\$0.69 to \$1.00ea	\$0.49 to \$0.67ea
Eucalyptus fastigiata/pilularis	\$0.83ea	-
Pinus radiata GF 17	\$0.25ea	\$0.18ea
GF 17DR	\$0.27ea	\$0.19ea
GF 19	\$0.28ea	\$0.20ea
GF 21-23 liquid pollinated	\$0.35ea	\$0.25ea
GF Plus™ 24 Wood Density 24	\$0.64ea	\$0.45ea
Pinus armandii	\$0.78ea	-
“ coulteri	\$1.25ea	-
“ densiflora	\$1.30 to \$1.75ea	-
“ nigra	\$0.68ea	-
“ pinea	\$0.78 to \$1.05ea	-
“ thunbergii	\$0.80 to \$1.75ea	-
“ torreyana	\$0.78 to \$1.65ea	-
Poplar varieties (rooted plants)	\$0.69 to \$1.21ea	\$1.02
Italian Alder (Alnus cordata)	\$1.60 to \$3.40ea	\$1.50 to \$3.15ea
Douglas Fir (25/50 cms)	\$0.66ea	\$0.45ea
Quercus (Oak) species	\$1.10 to \$3.40ea	\$1.10 to \$3.15ea

*Gibbs Nurseries Ltd: Dannevirke*

(price is per 100)

Abelia (Chinese Floribunda)	\$176.00
Acacia spp (Wattle)	\$164.44
Alnus	\$222.22/\$262.22
Cedrus Deodara (Indian Cedar) 2 yr/3 yr	\$173.33/\$244.44
Chamaecyparis Lawsoniana 2 yr/3 yr	\$164.44/\$222.22
Cupressus all varieties 2 year trees	\$173.33
Eucalyptus species	\$155.56
Larix species (Larch)	\$173.33
Liquidamber	\$84.44 per 10
Pinus Radiata: 1yr (selected)/1.5yr (sturdy)/2yr transplanted	\$31.11/\$62.22/\$93.33

Pittosporum	\$262.22
Phormium/Varigated Hybrids	\$133.33/\$222.22
Populus spp. (Poplars)	\$176.00
Pseudostuga menziesii (Douglas Fir) 2 yr/3 yr selected	\$160.00/\$173.33
Salix Matsudana /Kinayanagi (Willow)	\$176.00/\$186.67
Sequoia (Californian Redwood) 2 yr	\$186.67
Tree Lucerne (Tagasaste)	\$164.44

*Ngongotaha Nursery: Rotorua*

	Price per 100	Price per 1000
Acacia melanoxylon (Tasmanian Blackwood)	\$53	\$450
Casuarina species	\$165	-
Chamaecyparis lawsoniana (Lawson)	\$165	-
Cupressus (Macrocarpa and Lusitanica species)	\$53 to \$60	\$450 to \$530
Cupressocyparis leylandii (Leyland cypress species)	\$270	-
Cryptomeria japonica (Japanese cedar)	\$165	-
Dacrycarpus Dacryoidesa (Kahikatea white pine)	\$300	-
Eucalyptus species	\$53	\$450
Larix kaempferi (Japanese Larch)	\$165	-
Pseudotsuga menziesii (Douglas fir) 2 year	\$62	\$480
Pinus - GF 14 seedlings	\$28	\$200
radiata		
- GF19 seedlings	\$30	\$220
- GF Plus 25 seedlings	\$38	\$320
- GF Plus 26 seedlings	\$38	\$420
- GF Plus 24/26/28 cutting grown	\$44	\$390
Sequoia (redwood) species	\$165	-
Thuja plicata (Western Red Cedar)	\$165	-

*Waimea Nurseries: Nelson*

Betula pendula (Birch) (2 metres plus)	\$9.40
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Prices for multiples of 5 trees. Discounts apply for larger orders

*Ford's Nurseries Ltd: Oamaru*

	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	\$350.00	\$42.00
Cedrus deodara	\$120.00	\$18.00
Leyland Cypress 5cm tube/1litre tube	\$165.00/\$315.00	\$20.00/\$38.00
Cupressus species (1 year trees)	\$150.00 to \$315.00	\$10.00 to \$38.00
Cupressus species (2 year trees)	\$100.00 to \$300.00	\$15.00 to \$38.00
Eucalyptus nitens	\$110.00	\$20.00
Eucalyptus species	\$110.00	\$20.00
European Larch – 1 yr trees/2 yr trees	\$155.00/\$150.00	\$27.00/\$25.00
Pinus Radiata	\$30.00 to 62.00	\$5.00 to \$10.00
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)	\$55.00 to \$60.00	\$10.00
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 @ 50kg/ha for 10 to 20 ha	\$80 to \$140 per ha applied

#### Tending

Pruning	- first lift	\$1.00 to \$1.50 per tree
	- second lift	\$1.00 to \$1.50 per tree
	- third/fourth lift	\$1.20 to \$1.90 per tree
Thin to waste	- first thin to 400 to 600 trees	\$180 to \$350 per ha
	- second thin to 200 to 300 trees	\$200 to \$350 per ha

**Note:** Hourly rates 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	\$19 to \$26
- Cable logging	\$25 to \$32
- Helicopter logging, depends on flight time or distance	\$80 to \$160
Roading - Range from	\$1.00 to \$4.00
Log loading	\$1.50 to \$2.50
Log transport, average distance to mill or port	16 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:*

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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	\$5.00 per m <sup>2</sup>
Quarantine mesh	2m width, white	\$12.00 per metre
Weedstop™ fabric:		
	Black, woven, UV stabilised, 0.6 x 100m to 385 x 100m	\$88.84 to \$252.07
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

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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/\$159.52
Windbreak	green/black, 0.9m to 3.7m x 50m	\$46.75 to \$231.75
Polyclips	Windbreak and shadecloth fastening, green or black, price per 100/500	\$21.94/\$107.64

*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 Protectors:	1-999	1000-9999	10,000+
KBC NetTube W60 0.6m x 260mm dia	\$0.55	\$0.49	\$0.45

KBC NetTube W120 1.2m x 260mm dia	\$1.05	\$0.95	\$0.91
KBC NetTube N120 1.2m x 160mm dia	\$1.05	\$0.95	\$0.91
KBC NetTube N170 1.7m x 160mm dia	\$1.45	\$1.35	\$1.29
Galv Rabbit netting 0.6m x 50m roll	41 x 41mm mesh		\$96 per roll
Galv Hare netting 0.9m x 50m roll	41 x 41mm mesh		\$128 per roll
Galv Tree Guard 0.9m high x 900mm dia (incl stakes)			\$29 ea
Galv Tree Guard 1.2m high x 900mm dia (excl stakes)			\$31 ea
Galv Tree Guard 1.8m high x 900mm dia (excl stakes)			\$49 ea
KBC Tree Shelter:	1 to 99	100 to 499	500 plus
600mm x 100mm	\$2.30	\$2.25	\$2.10
600mm x 150mm 'Maxi'	\$2.80	\$2.70	\$2.55
750mm x 100mm	\$2.70	\$2.55	\$2.40
1200mm x 125mm	\$4.15	\$3.95	\$3.75
Wire Stabilisers	\$0.95 each (1 per shelter)		
Tubex (Tubular):	5 to 59	60 to 119	120 to 479
1.2m x 80 to 115mm diameter	\$5.20 ea	\$4.95 ea	\$4.70 ea
Spray Guards 500 x 150mm	\$230 per 1000	Supplied in cartons of 1200 guards	
Weed Matting	1 to 9 rolls	10 to 19 Rolls	20+ Rolls
KBC EcoWool Mulch Mat – 0.5m x 25m roll	\$73	\$64	\$55
KBC EcoWool Mulch Mat – 1m x 25m roll	\$126	\$115	\$96
KBC EcoWool Mulch Mat – 2m x 25m roll	\$214	\$203	\$164

## **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 128 to 256MB RAM, at least 10 GB hard disc, CD-Read-writer and a floppy disk drive for backups. 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 \$1200 to \$1500.

**Printer:**

The choice of printer will depend on the end use of the computer output. A reliable ink jet printer for general office use would cost around \$300 for a straight black and white printer and \$800 to \$1000 for a colour printer. For home use it is worth considering a colour printer, choose a printer that 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 \$2000.

**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, database software and Internet and educational or games software, bundled with it.

### 2.23.4 Hardware Prices

*Global PC Ltd:*

<b>Premier Package</b>	<b>Panther System</b>
AMD ATHLON XP2500 Processor Priced from \$1,350 256 Mb DDR Memory, 80 Gb 7200rpm Hard Drive, 52x Cd-ReWriter, 56K Dynalink Modem, 1.44 Floppy Drive, Integrated 10/100 Lan, Genius Kdyboard, Genius Scroll Mouse, Genius 120w PMPO Speakers, Viewsonic 17" CRTMonitor Lexmark X1150 Multifunction Printer/ Scanner/ Copier, Prints up to 2400 x 1200dpi, Prints up to 14ppm Black and 8ppm Colour. Software: Windows XP Home Edition, Fax Software, Anti Virus Software, Microsoft Outlook Express, Microsoft Internet Explorer, 602 Office Suite Package Word Processor, Spreadsheet.	Intel Pentium 42.6 (800Mhz) Processor Priced From \$1,800 128Mb FX5200 Graphics Card, Micro Case, 512 Mb DDR (400Mhz) Memory, 80 Gb 7200 rpm Samsung Hard Drive, DVD Drive and Cd-ReWriter Combo, 1.44 Floppy Drive, Keyboard, 56K Dynalink Modem, MS Optical Mouse, 17" Phillips Flat 107s Monitor Black, Creative Sound Blaster Speakers Software Windows XP Home Edition, Fax Software( if Required), Anti Virus Software, Microsoft Outlook Express, Internet Explorer, 602 Office suite package.

*Dell™ :*

<b>Dimension™ 4600 Desktop</b>	<b>Dimension™ 8300 Desktop</b>
Priced at \$1,350 Intel®Pentium® 4 with HT Technology 2.6GHz, Microsoft® Windows® XP Home Edition, 40GB Hard Drive, 17" CRT Monitor (16.0"v.i.s.)	Priced at \$1,960 Intel®Pentium® 4 with HT Technology 2.8GHz, Microsoft® Windows® XP Home Edition, 80GB Hard Drive, 19" CRT Monitor (17.9"v.i.s.)

### 2.23.5 Software Prices

*Landmark:* Software for the land – Version 4 (See advertisement inside front cover)

Easy to use; caters for more than one farm.

A complete farm management tool including – wage book and invoicing.

“Tech Partner” subscription scheme –

One off joining fee \$320.00 plus \$40.00 per month subscription.

Entitlement – free upgrades, free support, free Landmark software for Accountant plus Bank Manager plus farm advisor and more.

*Computer Concepts Ltd.:*

Cash Manager Rural	\$1196
FarmPac (Cash Manager Rural and Endeavor2)	\$1996
Endeavour2 (Farm mapping and information management software)	\$1196

Idiary	\$326
PremierPac (Annual subscription – includes ongoing support plus upgrade dispatch for cash manager Rural)	\$176

*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	MINDApro	DairyWIN	DairyMIN	CowPAD
Annual Program Fee	Free		\$200	\$100	\$130
Herd Fee (per herd)	Free	\$395	\$295	\$295	

The Annual Fee and/or Herd Fee includes:

- the latest version of the program
- any program updates released during the season
- user support
- free internet downloads

DairyWIN clients can choose to get downloads on a 3.5” floppy disk at a cost \$10 per 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 livestock recording program, and breeders can transfer data from the bureau to Studfax (\$1,400) on their own computers at any time. NZPRS also provides Studfax sales 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, 35,000 ewes recorded in 2003). 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. Website [www.nzprs.co.nz](http://www.nzprs.co.nz).

Fees (basic)

Annual flock/herd registration (electronic data exchange)	\$75
SIL charge for each new ID	\$0.40
SIL flock registration (annual fee)	\$30

Manual data entry services, tailored reports, consultancy services charged by the hour.

### *Compubreed Systems:*

Studfax (used widely throughout the stud industry) is a fully featured performance recording program for all types of livestock. Cost with one animal database (eg sheep, deer, cattle, goats, alpaca, horses) - \$1,400.

Additional animal database (eg red deer if a breeder already has sheep) - \$200.

Studfax 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 users can exchange data directly with SIL, Breedplan and other EBV services via the Internet.

Website [www.studfax.com](http://www.studfax.com)

### **Payroll**

Ace Payroll Plus (incorporates current tax codes and rates which are updated whenever legislation changes. IRD returns can be printed from the program, and it has very flexible pay features – casual, permanent, hourly, piece rates)

Windows version \$250 starting price

### **Other Farm Software**

CASH Manager Rural – Farm Financial Package \$1,196

Endeavour 2 – Physical recording program with mapping, management planning, addock and stock histories and gross margins \$1,996

### *Farm Works: (Feilding)*

Precision Farming Tools.

Agricultural Software:

P Plus software (previously FarmTracker)

Standard Map and Paddock Monitoring package (GPS capability) \$600

Stock Monitoring, Individual Animals, Grazing Management, Crop Planning,

Feed Budgeting, Horticultural Software, Financial Management Packages POA

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

(subject to terrain and degree of difficulty) 101 to 200 ha \$4 per hectare

over 200 ha \$3.50 per hectare

Large properties by negotiation

Digitised mapping, aerial photos, contour and soil data with or without GPS overlays P.O.A

Electronic rising plate meter: for pasture measuring

Full electronic rising plate meter with counter and carry bag \$600

Electronic counter \$350

Carry bag only \$45

Manual plate meter conversion kit (Round plate with outer black shaft) \$45

Counter repairs outside warranty including freight \$60

Laser Etched Whiteboards from 600x900mm up to 1200x2400mm \$400 to \$925delivered.

*Farm-Market Media Ltd:*

Excel spreadsheet templates which analyse many farm operations including feed budgeting, EFS, pasture analysis, number of cows to milk, cow profit maximisation calculator, cow earnings, farm statistics, and also including optimal pasture mineral element tables and mineral mix requirements for grazing animals.

These are the spreadsheets developed by internationally recognised farm consultant, Vaughan Jones, and used by pastoral farmers around the world. Each spreadsheet can be altered to suit each individual farm business including performance graphing.

Complete suite of 60 programmes available on CD	\$405
Individual spreadsheets	\$22.50 each

VJ Agricultural Spreadsheets can be viewed on [www.farm.net.nz](http://www.farm.net.nz) to order or download, or email [info@farm.net.nz](mailto:info@farm.net.nz)

## 2.24 APPENDIX: RATE of INFLATION in NEW ZEALAND 1891 to 2003

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 1.6 % in 2003.

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 2003  
 = 1.0 divided by 0.0079 = 126.58

This means a dollar (ten shillings) in 1891 would buy 126.58 times as much as a dollar in 2003.

(ii) 1950 compared with 1984  
 = 1.0 divided by 0.0681 = 14.68 times more purchasing power.

### Base Year:

Year	C.P.I %	1891	1920	1930	1940	1950	1960	1970	1980	1990	2000
1891	-	<b>1.0000</b>									
1892	<b>0.5</b>	0.9947									
1893	<b>2.7</b>	0.9682									
1894	<b>0.5</b>	0.9632									
1895	<b>-0.5</b>	0.9681									
1896	<b>0.5</b>	0.9631									
1897	<b>1.0</b>	0.9532									
1898	<b>4.1</b>	0.9143									
1899	<b>-3.4</b>	0.9457									
1900	<b>2.0</b>	0.9265									
1901	<b>3.0</b>	0.8988									
1902	<b>2.4</b>	0.8771									
1903	<b>-0.5</b>	0.8812									
1903	<b>0.0</b>	0.8812									
1905	<b>0.0</b>	0.8812									
1906	<b>6.6</b>	0.8228									
1907	<b>-0.9</b>	0.8301									
1908	<b>0.0</b>	0.8301									
1909	<b>-1.3</b>	0.8412									
1910	<b>1.4</b>	0.8298									
1911	<b>-0.9</b>	0.8372									
1912	<b>3.2</b>	0.8107									
1913	<b>2.2</b>	0.7929									
1914	<b>4.3</b>	0.7589									
1915	<b>7.8</b>	0.6996									
1916	<b>8.0</b>	0.6435									
1917	<b>9.9</b>	0.5798									
1918	<b>12.2</b>	0.5090									
1919	<b>7.7</b>	0.4696									

Year	C.P.I %	1891	1920	1930	1940	1950	1960	1970	1980	1990	2000
1920	<b>13.6</b>	0.4059	1.0000								
1921	<b>3.3</b>	0.3926	0.9672								
1922	<b>-10.9</b>	0.4353	1.0725								
1923	<b>-2.5</b>	0.4464	1.0998								
1924	<b>2.1</b>	0.4371	1.0768								
1925	<b>0.5</b>	0.4348	1.0713								
1926	<b>0.5</b>	0.4326	1.0658								
1927	<b>-0.8</b>	0.4359	1.0739								
1928	<b>0.0</b>	0.4359	1.0739								
1929	<b>-0.3</b>	0.4370	1.0739								
1930	<b>2.01</b>	0.4460	1.0987	1.0000							
1931	<b>7.6</b>	0.4797	1.1819	1.0757							
1932	<b>7.9</b>	0.5177	1.2754	1.1608							
1933	<b>4.6</b>	0.5415	1.3341	1.2142							
1934	<b>1.3</b>	0.5345	1.3169	1.1986							
1935	<b>3.8</b>	0.5142	1.2667	1.1529							
1936	<b>2.8</b>	0.5000	1.2319	1.1212							
1937	<b>7.1</b>	0.4643	1.1439	1.0411							
1938	<b>3.1</b>	0.4501	1.1089	1.0093							
1939	<b>4.6</b>	0.4295	1.0581	0.9631							
1940	<b>4.1</b>	0.4118	1.0145	0.9233	1.0000						
1941	<b>3.7</b>	0.3965	0.9768	0.8891	0.9629						
1942	<b>3.1</b>	0.3842	0.9465	0.8615	0.9330						
1943	<b>2.5</b>	0.3744	0.9224	0.8395	0.9092						
1944	<b>1.8</b>	0.3676	0.9058	0.8244	0.8928						
1945	<b>1.3</b>	0.3628	0.8937	0.8314	0.8809						
1946	<b>0.7</b>	0.3604	0.8878	0.8081	0.8752						
1947	<b>3.3</b>	0.3486	0.8589	0.7817	0.8466						
1948	<b>8.0</b>	0.3207	0.7902	0.7192	0.7789						
1949	<b>1.6</b>	0.3157	0.7779	0.7080	0.7667						
1950	<b>5.8</b>	0.2976	0.7331	0.6672	0.7226	<b>1.0000</b>					
1951	<b>10.9</b>	0.2651	0.6532	0.5946	0.6439	0.8911					
1952	<b>7.9</b>	0.2443	0.6019	0.5478	0.5933	0.8211					
1953	<b>4.6</b>	0.2332	0.5745	0.5229	0.5663	0.7837					
1954	<b>4.5</b>	0.2227	0.5487	0.4994	0.5408	0.7485					
1955	<b>2.6</b>	0.2168	0.5342	0.4862	0.5266	0.7287					
1956	<b>3.4</b>	0.2095	0.5161	0.4698	0.5087	0.7041					
1957	<b>2.2</b>	0.2048	0.5046	0.4593	0.4974	0.6884					
1958	<b>4.5</b>	0.1957	0.4820	0.4387	0.4751	0.6575					
1959	<b>7.5</b>	0.1810	0.4460	0.4095	0.4396	0.6084					
1960	<b>-2.7</b>	0.1860	0.4582	0.4170	0.4516	0.6250	1.0000				
1961	<b>1.8</b>	0.1827	0.4501	0.4097	0.4437	0.6140	0.9824				
1962	<b>2.6</b>	0.1779	0.4382	0.3988	0.4319	0.5978	0.9564				
1963	<b>2.0</b>	0.1743	0.4294	0.3908	0.4232	0.5857	0.9371				
1964	<b>3.4</b>	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	<b>3.4</b>	0.1626	0.4006	0.3646	0.3949	0.5465	0.8743				
1966	<b>2.8</b>	0.1581	0.3895	0.3545	0.3839	0.5313	0.8500				
1967	<b>6.1</b>	0.1484	0.3657	0.3328	0.3605	0.4988	0.7981				
1968	<b>4.2</b>	0.1421	0.3502	0.3187	0.3452	0.4777	0.7642				
1969	<b>5.0</b>	0.1351	0.3327	0.3028	0.3280	0.4539	0.7262				
1970	<b>6.5</b>	0.1263	0.3112	0.2833	0.3068	0.4245	0.6792	1.0000			
1971	<b>10.4</b>	0.1131	0.2787	0.2537	0.2747	0.3802	0.6083	0.8955			
1972	<b>6.9</b>	0.1053	0.2595	0.2363	0.2558	0.3540	0.5664	0.8338			
1973	<b>8.2</b>	0.0967	0.2383	0.2168	0.2349	0.3251	0.5201	0.7658			
1974	<b>11.2</b>	0.0859	0.2117	0.1927	0.2087	0.2888	0.4621	0.6803			
1975	<b>14.7</b>	0.7333	0.1807	0.1645	0.1781	0.2465	0.3943	0.5806			
1976	<b>16.9</b>	0.0609	0.1501	0.1366	0.1480	0.2048	0.3276	0.4824			
1977	<b>14.4</b>	0.0522	0.1285	0.1170	0.1267	0.1753	0.2805	0.4130			
1978	<b>11.9</b>	0.0459	0.1132	0.1030	0.1116	0.1544	0.2470	0.3637			
1979	<b>13.7</b>	0.0396	0.0976	0.0889	0.0963	0.1332	0.2131	0.3138			
1980	<b>17.1</b>	0.0328	0.0809	0.0737	0.0798	0.1104	0.1766	0.2600	1.0000		
1981	<b>15.5</b>	0.0278	0.0684	0.0623	0.0674	0.0933	0.1493	0.2198	0.8453		
1982	<b>16.1</b>	0.0233	0.0574	0.0523	0.0566	0.0798	0.1253	0.1845	0.7094		
1983	<b>7.4</b>	0.0216	0.0532	0.0484	0.0524	0.0725	0.1160	0.1708	0.6570		
1984	<b>6.1</b>	0.0203	0.0499	0.0455	0.0492	<b>0.0681</b>	0.1090	0.1605	0.6171		
1985	<b>15.5</b>	0.0171	0.0422	0.0384	0.0416	0.0576	0.0921	0.1356	0.5216		
1986	<b>13.2</b>	0.0149	0.0366	0.0333	0.0361	0.0500	0.0799	0.1177	0.4526		
1987	<b>15.7</b>	0.0125	0.0309	0.0281	0.0304	0.0421	0.0674	0.0992	0.3815		
1988	<b>6.4</b>	0.0117	0.0289	0.0263	0.0285	0.0394	0.0631	0.0929	0.3572		
1989	<b>5.7</b>	0.0111	0.0273	0.0248	0.0269	0.0372	0.0595	0.0876	0.3368		
1990	<b>6.1</b>	0.0104	0.0256	0.0233	0.0253	0.0349	0.0559	0.0823	0.3163	1.0000	
1991	<b>4.5</b>	0.0099	0.0244	0.0223	0.0242	0.0333	0.0534	0.0786	0.3021	0.9550	
1992	<b>0.8</b>	0.0098	0.0242	0.0221	0.0240	0.0330	0.0530	0.0778	0.2997	0.9474	
1993	<b>1.4</b>	0.0097	0.0239	0.0218	0.0237	0.0325	0.0523	0.0767	0.2955	0.9341	
1994	<b>2.8</b>	0.0094	0.0232	0.0211	0.0230	0.0316	0.0508	0.0745	0.2872	0.9079	
1995	<b>2.9</b>	0.0091	0.0225	0.0205	0.0223	0.0307	0.0493	0.0723	0.2788	0.8816	
1996	<b>2.6</b>	0.0089	0.0219	0.0200	0.0217	0.0299	0.0480	0.0704	0.2716	0.8587	
1997	<b>0.8</b>	0.0088	0.0217	0.0198	0.0215	0.0297	0.0476	0.0699	0.2694	0.8518	
1998	<b>0.4</b>	0.0088	0.0217	0.0197	0.0215	0.0295	0.0474	0.0696	0.2683	0.8484	
1999	<b>0.5</b>	<b>0.0087</b>	0.0215	0.0196	0.0214	0.0294	0.0472	0.0692	0.2670	0.8442	
2000	<b>4</b>	0.0084	0.0207	0.0188	0.0205	0.0282	0.0453	0.0665	0.2563	0.8104	1.0000
2001	<b>1.8</b>	0.0082	0.0203	0.0185	0.0201	0.0277	0.0445	0.0653	0.2517	0.7958	0.9820
2002	<b>2.7</b>	0.0080	0.0198	0.0180	0.0196	0.0269	0.0433	0.0635	0.2449	0.7743	0.9555
2003	<b>1.6</b>	0.0079	0.0194	0.0177	0.0193	0.0265	0.0426	0.0625	0.2410	0.7619	0.9402

Source: Lincoln University.

## **SECTION 3**

### **LIVESTOCK, CROPPING and HORTICULTURAL GROSS MARGINS**

#### **ENTERPRISE ANALYSIS**

**Note:**

Before reading this section, please refer to the disclaimer in the Preface of this Manual.

### **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 January 2004. 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 January 2004. 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.**



**Income:**

Prime wether lambs	330 @	\$60.00	\$19,800	
Store m.s. lambs	380 @	\$45.00	\$17,100	
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 @	\$4.50 (net)	\$26,820	
<b>TOTAL INCOME</b>				<b>\$78,230</b>

**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 @	\$0.08	\$79.20	
Drench lambs (doses)	3177 @	\$0.06	\$190.62	
(replacements drenched 5 times, stores 3 times)				
Vaccinate ewes	990 @	\$0.50	\$495.00	
Vaccinate hoggets	370 @	\$0.43	\$159.10	
Eartags, footrot and docking etc			\$550.00	
Dipping - sheep	1000 @	\$1.00	\$1,000.00	
- lambs	722 @	\$0.85	\$613.70	\$3,087.62
Cartage - (based on 100km travel)				
Prime lambs	330 @	\$1.78	\$587.40	
Store lambs	380 @	\$0.95	\$361.00	
Cull hgts/2th/5yr ewes	226 @	\$1.43	\$323.18	
Works ewes	44 @	\$1.50	\$66.00	
Wool - bales	33 @	\$10.50	\$346.50	\$1,684.08
Selling Charges -				
Yard fees - sheep	606 @	\$0.60	\$363.60	
Commission -				
- saleyards	\$29,850 @	5.5%	\$1,641.75	
- other stock	\$21,560 @	5.5%	\$1,185.80	\$3,191.15
Ram Purchase	5 @	\$500		\$2,500.00
<b>TOTAL DIRECT COSTS</b>				<b>\$17,039.35</b>

TOTAL GROSS MARGIN (before interest)	\$61,190.65
GROSS MARGIN per dollar invested in sheep	\$ 0.65
<u>GROSS MARGIN per Stock Unit</u>	<u>\$ 47.47</u>

**Gross Margin per Stock Unit at Various  
Stock Sale and Wool Prices.**

		Wool Price \$/kg (net)		
		\$3.60	\$4.50	\$5.40
<b>AVERAGE PRIME</b>	<b>\$48.00</b>	\$40.41	\$44.57	\$48.73
<b>LAMB PRICE</b>	<b>\$60.00</b>	\$43.31	\$47.47	\$51.63
<b>\$/HEAD</b>	<b>\$72.00</b>	\$46.21	\$50.37	\$54.54

**Interest Costs:**

Interest on Capital Stock Value:			
\$94,675	@	7.5%	\$ 7,101
RETURN per Stock Unit (after interest)			\$ 41.96

### 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 @	\$60.00	\$78,000	
Cull ewes to works	527 @	\$40.00	\$21,080	
Wool (kg)	3840 @	\$4.50 (net)	\$17,280	
TOTAL INCOME				\$116,360.00

#### 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 @	\$0.08	\$79.20	
Drench lambs (3x)	3900 @	\$0.06	\$234.00	
Vaccinate ewes	990 @	\$0.50	\$495.00	

Eartags, footrot and docking etc			\$300.00	
Dipping - purchased ewes already dipped				
ewes	418 @	\$1.00	\$418.00	
lambs	850 @	\$0.85	\$722.50	\$2,248.70
Cartage - (based on 50km travel except for replacement ewes, at 70km)				
Prime lambs	1300 @	\$1.21	\$1,573.00	
Works ewes	527 @	\$1.00	\$527.00	
Replacement ewes	595 @	\$1.91	\$1,136.45	
Wool - bales	21 @	\$7.61	\$159.81	\$3,396.26
Ram Purchase	4 @	\$500		\$2,000.00
<b>TOTAL DIRECT COSTS</b>				<b>\$47,150.11</b>
<b>TOTAL GROSS MARGIN (before interest)</b>				<b>\$69,209.89</b>
<b>GROSS MARGIN per dollar invested in sheep</b>				<b>\$1.12</b>
<u><b>GROSS MARGIN per Stock Unit</b></u>				<u><b>\$68.34</b></u>

**Gross Margin per Stock Unit at Various  
Lamb and Wool Prices.**

		Wool Price \$/kg (net)		
		\$3.60	\$4.50	\$5.40
<b>LAMB</b>	<b>\$48.00</b>	\$49.52	\$52.93	\$56.34
<b>PRICE</b>	<b>\$60.00</b>	\$64.92	\$68.34	\$71.75
<b>\$/HEAD</b>	<b>\$72.00</b>	\$80.33	\$83.74	\$87.15

**Interest Costs:**

Interest on Capital Stock Value:

\$61,600 @ 7.5% \$4,620.00

**RETURN per Stock Unit (after interest)** **\$63.77**



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 @	\$0.16	\$320.00	
Drench lambs/hoggets	4850 @	\$0.12	\$582.00	
Vaccinate ewes	990 @	\$0.50	\$495.00	
Vaccinate hoggets	160 @	\$0.50	\$80.00	
Footvax	2000 @	\$1.15	\$2,300.00	
Fly spray, zinc sulphate, tags etc			\$800.00	
Dipping - all sheep	1900 @	\$1.25	\$2,375.00	\$6,952.00
Cartage - (based on 70km travel)				
Hoggets	736 @	\$1.47	\$1,081.92	
Works ewes	100 @	\$1.20	\$120.00	
Wool - bales	40 @	\$9.26	\$370.40	\$1,572.32
Ram Purchase	3 @	\$600		\$1,800.00
<b>TOTAL DIRECT COSTS</b>				<b>\$20,237.32</b>
<b>TOTAL GROSS MARGIN (before interest)</b>				<b>\$92,822.68</b>
<b>GROSS MARGIN per dollar invested in sheep</b>				<b>\$1.00</b>
<b><u>GROSS MARGIN per Stock Unit</u></b>				<b><u>\$68.17</u></b>

**Gross Margin per Stock Unit at Various  
hogget and wool prices**

		Average Wool Price \$/kg (net)		
		\$8.39	\$10.49	\$12.59
<b>AVE HOGGET</b>	<b>\$46.40</b>	\$52.14	\$62.36	\$72.59
<b>PRICE</b>	<b>\$58.00</b>	\$57.93	\$68.17	\$78.38
<b>\$/HEAD (net)</b>	<b>\$69.60</b>	\$63.73	\$73.95	\$84.17

Interest on Capital Stock Value:

\$92,450 @ 7.5% \$6,933.75

RETURN per Stock Unit (after interest) \$63.08



TOTAL GROSS MARGIN (before interest)	\$50,260.00
GROSS MARGIN per dollar invested in cattle	\$0.43
<u>GROSS MARGIN per Stock Unit</u>	<u>\$56.54</u>

**Gross Margin per Stock Unit at various weaning percentages and selling prices (18 month cattle):**

		AVERAGE SALE PRICE \$/HEAD of 18 month cattle		
		\$603.12	\$709.55	\$815.98
% WEANED	77%	\$43.21	\$50.15	\$57.09
	86%	\$48.63	\$56.54	\$64.44
	95%	\$54.06	\$62.92	\$71.78

**Interest and Feed Costs:**

Interest on Capital Stock Value: \$117,700 @ 7.5%	\$8,827.50
Feed - Buy in additional hay (bales) 700 @ \$ 3.50	\$2,450.00 \$11,277.50
RETURN per stock unit (after interest and feed)	\$43.85

### 3.2.5 Bull Beef

#### BULL GROSS MARGIN

Friesian Bulls purchased as weaners  
sold at 19 to 24 months of age  
(70% killed at 20 months)

#### Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Rsg 1 yr Friesian Bulls	70 @	\$500	\$35,000	3.5	245
Rsg 2 yr Friesian Bulls	20 @	\$700	\$14,000	6	120
	90		\$49,000		365

Dollar Investment in beef per stock unit \$134

#### Production Parameters:

Death rate. 3%

Sell majority 70% at 19 to 21 months of age between March and May, retain balance until Oct/Nov (sell at 24 months of age). The assumption is made that prices normally rise during May to August, with an average price for the period being \$3.30/kg.

#### Income:

Bulls (270 kg C.W.)	68 @	\$3.30 per kg	\$60,588.00	
TOTAL INCOME				\$60,588.00

#### Expenditure:

Weaner Bulls (100 kg)	72 @	\$2.85 / kg	\$20,520.00	
Animal Health				
Anthelminitics (6x)	420 @	\$0.75 / dose	\$315.00	
Pour on	70 @	\$5.50 / head	\$385.00	
Cobalt injection	70 @	\$0.51 / dose	\$35.70	\$735.70
Copper Bullet	70 @	\$3.45	\$241.50	\$250.00
Five in One (2x)	140 @	\$0.22	\$30.80	
Transport based on 50km				
Weaners to Farm	72 @	\$5.50	\$396.00	
Finished Bulls to Works	68 @	\$15.90	\$1,081.20	\$1,477.20
Levies - AHB, Federated Farmers, NZMB				
	68 @	\$17.00 per head		\$1,156.00
TOTAL DIRECT COSTS				\$24,138.90

TOTAL GROSS MARGIN (before interest)	\$36,449.10
GROSS MARGIN per dollar invested in cattle	\$0.74
<u>GROSS MARGIN per Stock Unit</u>	<u>\$99.86</u>

**Gross Margin per Stock Unit at Various  
weaner and bull prices**

		<b>BULL SCHEDULE \$/kg</b>		
		<b>\$2.57</b>	<b>\$3.30</b>	<b>\$4.03</b>
<b>WEANER</b>	<b>\$2.45</b>	\$71.21	\$107.73	\$144.25
<b>PRICE</b>	<b>\$2.85</b>	\$63.34	\$99.86	\$136.38
<b>\$/kg</b>	<b>\$3.25</b>	\$55.47	\$91.99	\$128.51

Interest on Capital Stock Value:  
\$49,000 @ 7.5%

\$3,675.00

RETURN per stock unit (after interest)

\$89.79

### 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 @	\$1,000	\$320,000	8	2560
In Calf Milking Heifers	90 @	\$850	\$76,500	6.5	585
R 1 Yr Heifers	95 @	\$350	\$33,250	3.5	332.5
	505		\$429,750		3,478

Dollar Investment in cattle per stock unit \$123.58

#### 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 @	\$3.80 per kg	\$514,140
Cull cows	70 @	\$400.00 (net)	\$28,000
M.S. calves	274 @	\$60.00 (net)	\$16,440

TOTAL INCOME \$558,580

#### Expenditure:

Animal Health	410 @	\$61.00 per cow	\$25,010
(i.e. bloat, magnesium, mastitis, vet etc)			
Artificial Breeding			
Cows	410 @	\$12.80 per cow	\$5,248
Herd Testing and Recording (4 visits year)			\$540
Per cow fee	410 @	\$1.35	\$2,214
Minda \$156 plus	410 @	\$0.16	\$222
	95 @	\$0.08	\$8
Electricity - shed	410 @	\$59.00 per cow	\$24,190
Shed expenses	410 @	\$19.00 per cow	\$7,790
(i.e.detergent, rubberware, filters etc)			

TOTAL DIRECT COSTS \$65,221

TOTAL GROSS MARGIN (before feed costs and interest) \$493,359

GROSS MARGIN per dollar invested in cattle \$1.15

GROSS MARGIN per Stock Unit \$141.87

**Gross Margin per Stock Unit at various  
milksolids production levels and milksolids prices:**

		MILKSOLIDS PRICE \$/kg		
		\$3.42	\$3.80	\$4.18
<b>kg</b>	<b>297</b>	\$113.78	\$127.09	\$140.39
<b>Milksolids</b>	<b>330</b>	\$127.09	\$141.87	\$156.66
<b>per cow</b>	<b>363</b>	\$140.39	\$156.66	\$172.92

Interest on Capital Stock Value:

\$429,750 @ 7.5% \$32,231

Feed - Buy in 20% of total requirement per cow (over whole herd)

(i.e. grazing off, hay etc)

@ \$ 130.00 \$53,300    \$85,531

RETURN per stock unit (after interest and feed) \$117.28

### 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 @	\$185	\$18,500	1.4	140
Dollar Investment in deer per stock unit			\$ 132.14		

#### 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 @	\$4.50 /kg	\$24,007.50
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#### Expenditure:

Weaner stags (50 kg lwt)	100 @	\$3.70 /kg	\$18,500
Animal Health (per head)	100 @	\$5.42	\$542.00
Freight (based on 100 km)	100 @	\$7.25	\$725.00
	97 @	\$9.00	\$873.00
Levies -			\$1,598.00
GIB & AHB venison levy	5335 @	\$0.14 /kg	\$746.90
Meat inspection fee	97 @	\$9.00 /hd	\$873.00

TOTAL DIRECT COSTS \$22,259.90

TOTAL GROSS MARGIN (before feed costs and interest) \$1,747.60

GROSS MARGIN per dollar invested in deer \$0.09

GROSS MARGIN per Stock Unit \$12.48

**Gross Margin per Stock Unit at Various  
weaner purchase prices and venison schedule prices.**

		<b>VENISON SCHEDULE \$/KG</b>		
		<b>\$3.69</b>	<b>\$4.50</b>	<b>\$5.31</b>
<b>WEANER</b>	<b>\$4.26</b>	(\$38.21)	(\$7.34)	\$23.53
<b>PURCHASE PRICE</b>	<b>\$3.70</b>	(\$18.38)	\$12.48	\$43.35
<b>\$/kg Lwt</b>	<b>\$3.15</b>	\$1.44	\$32.30	\$63.17

**Interest and Feed Costs:**

Interest on Capital Stock Value:

\$18,500 @ 7.5% \$1,387.50

Winter Feed - Buy in additional hay and concentrates

@ \$13 per head \$1,300.00 \$2,687.50

RETURN per Stock Unit (after interest and feed)

(\$6.71)



Levies -				
GIB & AHB Venison levy	3455 @	\$0.14 /kg	\$483.70	
Meat inspection fee	62 @	\$9.00 /kg	\$558.00	
GIB & AHB Velvet levy	15 @	\$3.72	\$55.80	\$1,097.50
TOTAL DIRECT COSTS				\$7,027.75
TOTAL GROSS MARGIN (before interest)				\$19,219.75
GROSS MARGIN per dollar invested in deer				\$0.26
<u>GROSS MARGIN per Stock Unit</u>				<u>\$43.52</u>

**Gross Margin per Stock Unit at Various  
weaner hind prices and venison schedule prices.**

		VENISON SCHEDULE \$/kg		
		\$3.76	\$4.50	\$5.24
<b>WEANER</b>	<b>\$2.48</b>	\$34.90	\$40.50	\$46.11
<b>HIND PRICE</b>	<b>\$3.10</b>	\$37.92	\$43.52	\$49.13
<b>\$/kgLwt</b>	<b>\$3.72</b>	\$40.93	\$46.54	\$52.15

**Interest and Feed Costs:**

Interest on Capital Stock Value:				
\$72,690 @	7.5%	\$5,451.75		
Winter Feed - Buy in additional hay and concentrates				
@	\$12 per head	\$2,880.00	\$8,331.75	
RETURN per Stock Unit (after interest and feed)				\$24.66

### 3.2.9 Deer - Velveting

#### 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 @	\$185	\$5,550	1.8	54
Rsg 2 yr Stags	15 @	\$325	\$4,875	2.25	34
Rsg 3 yr Stags	13 @	\$450	\$5,850	2.5	33
M.A. Stags	58 @	\$550	\$31,900	2.5	145
	116		\$48,175		265
Dollar Investment in deer per stock unit			\$181.62		

#### 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	\$85 /kg	C grade	
3yr Stags	13 @	2 kg	\$100 /kg	B grade	
M.A. Stags	58 @	3 kg	\$120 /kg	A grade	
Velvet Sold		230 kg @	\$111.87 per kg		\$25,730.00
Cull stags	20 @	70 kg @	\$4.50 per kg		\$6,300.00
TOTAL INCOME					\$32,030.00

**Expenditure:**

Weaner stags	30 @	\$150		\$4,500.00
Velveting using veterinarian -				
1st cut	116 @	\$25	\$2,900.00	
2nd cut	35 @	\$23	\$805.00	\$3,705.00
Animal health				
Pour-on	232 @	\$2.75	\$638.00	
Copper bullet(10g)	116 @	\$3.45	\$400.20	\$1,038.20
Levies -				
Venison				
MAF inspection	10 @	\$9.00	\$90.00	
G.I.B.	1400 @	\$0.14	\$196.00	
Velvet G.I.B & AHB	230 @	\$3.72	\$855.60	\$1,141.60
TOTAL DIRECT COSTS				\$10,384.80
TOTAL GROSS MARGIN (before interest)				\$21,645.20
GROSS MARGIN per dollar invested in deer				\$0.45
<u>GROSS MARGIN per Stock Unit</u>				<u>\$81.60</u>

**Gross Margin per Stock Unit at Various velvet prices and velvet yields.**

		VELVET SOLD (kg)		
		207.00	230.00	253.00
<b>AVERAGE</b>	<b>\$91.73</b>	\$56.51	\$64.14	\$71.77
<b>VELVET</b>	<b>\$111.87</b>	\$72.23	\$81.60	\$90.98
<b>PRICE</b>	<b>\$132.01</b>	\$87.94	\$99.06	\$110.19
<b>\$/KG</b>				

Interest on Capital Stock Value:			
\$48,175 @ 7.5%			\$3,613.13
Winter Feed - Buy in additional feed			
@ \$13 per head			\$1,508.00
			\$5,121.13
RETURN per Stock Unit (after interest and feed)			\$62.30

### 3.2.10 Pig - Breeding

#### PIG GROSS MARGIN Housed Sows Selling Weaners

##### Capital Stock:

Sows	50 @	\$300	\$15,000	
Boars	2 @	\$800	\$1,600	\$16,600

##### 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	80%
Litters per sow per year	2.2

##### Income:

Weaners at 20kg	1000 @	\$60.00	\$60,000.00
Chopper Sows	14 @	\$200.00	\$2,800.00
Chopper Boar	1 @	\$220.00	\$220.00

TOTAL INCOME \$63,020.00

##### Expenditure:

##### Replacement Stock Purchase -

Boar	1 @	\$900.00	\$900.00	
Gilts	20 @	\$275.00	\$5,500.00	\$6,400.00

##### Home milled feed-

Breeder (t)	64.7 @	\$550.00	\$35,585.00	
Creep (t)	3.1 @	\$580.00	\$1,798.00	
Weaner (t)	22.3 @	\$575.00	\$12,822.50	\$50,205.50
Animal Health	50 @	\$40.00 per Sow		\$2,000.00
Repairs to pens, feeders and water supply (in pen)				\$2,100.00
Electricity				\$2,000.00

TOTAL DIRECT COSTS \$62,705.50

TOTAL GROSS MARGIN (before interest) \$314.50

GROSS MARGIN per sow \$6.29

GROSS MARGIN per \$ invested in pigs \$0.02

**Gross Margin per Sow  
at varying weaner prices and feed costs.**

		<b>WEANER PRICE \$/HEAD</b>		
		<b>\$54.00</b>	<b>\$60.00</b>	<b>\$66.00</b>
<b>Feed</b>	<b>\$577.50</b>	(\$149.30)	(\$29.30)	\$90.70
<b>Cost \$ per tonne</b>	<b>\$550.00</b>	(\$113.71)	\$6.29	\$126.29
<b>(Breeder)</b>	<b>\$522.50</b>	(\$78.13)	\$41.88	\$161.88

**Interest Cost:**

Interest on Capital Stock Value		
\$16,600 @	7.5% per annum	\$1,245.00
Return per pig after interest		(\$17.89)

### 3.2.11 Pig - Finishing

#### PIG GROSS MARGIN Purchase Weaners and Finish to 95% Bacon 5% Pork

##### Capital Stock:

Weaners	1000 @	\$60.00	\$60,000.00
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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	50%
Purchase to finishing 13 weeks	
Buying 20 kg weaners	

##### Income:

Porkers	49 @	\$142.00	\$6,958.00
Baconers	926 @	\$211.00	\$195,386.00

TOTAL INCOME	\$202,344.00
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##### Expenditure:

Replacement stock purchase			
weaners	1000 @	\$60.00	\$60,000.00
Home milled feed -			
Grower mix (t)	177 @	\$575.00	\$101,775.00
Animal Health per weaner	@	\$7.00	\$7,000.00
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	\$177,125.00
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TOTAL GROSS MARGIN (before interest)	\$25,219.00
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GROSS MARGIN per weaner	\$25.22
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<u>GROSS MARGIN per \$ Invested</u>	\$0.42
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**Gross Margin per Weaner  
at various Baconer prices and feed costs**

		<b>BACONER PRICE \$/head</b>		
		<b>\$189.90</b>	<b>\$211.00</b>	<b>\$232.10</b>
<b>Grower</b>	<b>\$632.50</b>	(\$4.50)	\$15.04	\$34.58
<b>Feed</b>	<b>\$575.00</b>	\$5.68	\$25.22	\$44.76
<b>\$/tonne</b>	<b>\$517.50</b>	\$15.86	\$35.40	\$54.94

**Interest Cost:**

Interest on Capital Stock Value			
\$60,000 @	7.5% per annum (13 weeks)		\$1,125.00
Return per weaner after interest			\$24.09

### 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.**

		<b>EGG PRICE \$ per dozen</b>		
		<b>\$1.13</b>	<b>\$1.25</b>	<b>\$1.38</b>
<b>FEED COST</b>	<b>\$0.67</b>	\$1,980.00	\$61,980.00	\$126,980.00
<b>per dozen eggs</b>	<b>\$0.70</b>	(\$13,020.00)	\$46,980.00	\$111,980.00
<b>produced</b>	<b>\$0.74</b>	(\$33,020.00)	\$26,980.00	\$91,980.00

**Interest Cost:**

Interest on Capital Stock Value:

\$100,000 @ 7.5% \$7,500.00

RETURN per 1000 hens (after interest) \$39,480.00

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
<b>TOTAL INCOME</b>			<b>\$130,756.45</b>

##### 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
<b>TOTAL DIRECT COSTS</b>			<b>\$35,650.00</b>
<b>TOTAL GROSS MARGIN</b>			<b>\$95,106.45</b>
<u>GROSS MARGIN per bird</u>			<u>\$0.34</u>

#### Gross Margin per 45000 birds placed at different bird prices and repairs and maintenance costs.

		Broiler Price (\$)		
		\$0.45	\$0.47	\$0.49
<b>Repairs and</b>	<b>\$1,900.00</b>	\$90,341.75	\$95,726.45	\$101,111.15
<b>Maintenance</b>	<b>\$2,000.00</b>	\$89,721.75	\$95,106.45	\$100,491.15
<b>cost per run</b>	<b>\$2,100.00</b>	\$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 associated with the Lincoln University Farms.

#### 3.3.1 Wheat

#### WHEAT GROSS MARGIN

##### Income:

Per tonne delivered	8 t/ha	@	\$310.00 /tonne		\$2,480.00
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##### Expenditure (per hectare):

##### Cultivation -

95 kW tractor -	2.7 hrs	@	\$27.24 /hour		\$73.55
(Fuel \$15.24/hr; R&M \$12/hr)					

Seed -	220 kg/ha	@	\$910.00 /tonne		\$200.20
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##### Fertilizer -

Cropmaster 20	100 kg/ha	@	\$391.00 /tonne	\$39.10	
Urea	300 kg/ha	@	\$395.00 /tonne	\$118.50	
Ammonium Sulphate	150 kg/ha	@	\$315.00 /tonne	\$47.25	\$204.85

##### Weed, Pest and Disease -

Commando	4 l/ha	@	\$36.71 /litre	\$146.84	
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Cougar	0.75 l/ha	@	\$48.88 /litre	\$36.66	
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Glean	15 g/ha	@	\$0.67 /gram	\$10.05	
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Cereous	0.51 l/ha	@	\$101.87 /litre	\$51.95	
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Cycocel	1.5 l/ha	@	\$10.93 /litre	\$16.40	
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Applications	4	@	\$28.00	\$112.00	\$373.90
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Irrigation - 75 mm	2 x	@	\$47.00		\$94.00
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(Electricity \$35.00; R&M \$11.00)

Harvest - (in silo; contract)	8 t	@	\$25.00 /tonne	\$200.00
Freight - (silo to port 40 km)	8 t	@	\$21.00 /tonne	\$168.00
<b>TOTAL DIRECT COSTS</b>				<b>\$1,314.50</b>
<u><b>GROSS MARGIN per Hectare</b></u>				<u><b>\$1,165.50</b></u>

**Gross Margin per Hectare at various  
selling prices and yields.**

		<b>YIELD Tonnes/ha</b>		
		<b>7.65</b>	<b>8.5</b>	<b>9.35</b>
<b>PRICE</b>	<b>\$261.00</b>	\$540.13	\$719.31	\$898.49
<b>PER</b>	<b>\$290.00</b>	\$761.98	\$965.81	\$1,169.64
<b>TONNE</b>	<b>\$319.00</b>	\$983.83	\$1,212.31	\$1,440.79





### 3.3.4 Ryegrass

#### RYEGRASS GROSS MARGIN

(Embassy)

#### Income:

Seed (Machine Dressed)	1500 kg	@	\$1.80 /kg	\$2,700.00
Straw	7 bales	@	\$16.00 each	\$112.00
<b>TOTAL INCOME</b>				<b>\$2,812.00</b>

#### Expenditure(per hectare):

Cultivation -				
95 kW tractor -	2.4 hr	@	\$27.24 /hour	\$65.38
(Fuel \$15.24/hr; R&M \$12/hr)				
Seed -	10 kg/ha	@	\$6.50 /kg	\$65.00
Fertiliser -				
Cropmaster 20	100 kg/ha	@	\$391.00 /tonne	\$39.10
Urea (split appln.)	300 kg/ha	@	\$395.00 /tonne	\$118.50
Weed, Pest and Disease -				
Roundup	2.5 l/ha	@	\$12.59 /litre	\$31.48
Trimec	3.5 l/ha	@	\$17.56 /litre	\$61.46
Commando	5 l/ha	@	\$36.71 /litre	\$183.55
Folicur	0.75 l/ha	@	\$139.38 /litre	\$104.54
Application costs	4	@	\$28.00	\$112.00
Irrigation (75 mm)	2 x	@	\$47.00	\$94.00
(Electricity \$35.00; R&M \$11.00)				
Harvest - Windrow (contract)		@	\$80.00 /ha	\$80.00
Header (contract)		@	\$195.00 /ha	\$195.00
Freight - (F.D.)	1.5 t	@	\$30.00 /tonne	\$45.00
Seed Dressing -	1800 kg	@	\$0.17 /kg	\$306.00
<b>TOTAL DIRECT COSTS</b>				<b>\$1,501.00</b>
<u>GROSS MARGIN per Hectare</u>				<u>\$1,311.00</u>

#### Gross margin per Hectare at various selling prices and yields.

		YIELD kg (MD)/ Hectare		
		1000	1500	2000
<b>PRICE</b>	<b>\$1.62</b>	\$348.00	\$1,041.00	\$1,734.00
<b>\$/kg</b>	<b>\$1.80</b>	\$528.00	<b>\$1,311.00</b>	\$2,094.00
	<b>\$1.98</b>	\$708.00	\$1,581.00	\$2,454.00

### 3.3.5 Fescue

2 year crop ( establishment cost spread over the two years)

#### FESCUE GROSS MARGIN

##### Income:

Seed (Machine Dressed)	600 kg	@	\$3.50 /kg	\$2,100.00
Straw	12 bales	@	\$18.00 each	\$216.00
<b>TOTAL INCOME</b>				<b>\$2,316.00</b>

##### Expenditure(per hectare):

Cultivation -				
95 kW tractor -	1.5 hr	@	\$27.24 /hour	\$20.43
(Fuel \$15.24/hr; R&M \$12/hr)				
Seed -	10 kg/ha	@	\$10.00 /kg (1st year only)	\$50.00
Fertiliser -				
Cropmaster 20	150 kg/ha	@	\$391.00 /tonne	\$58.65
Urea (split appln.)	450 kg/ha	@	\$395.00 /tonne	\$177.75
Application costs	4	@	\$28.00	\$112.00
				\$348.40
Weed, Pest and Disease -				
Opus	1 l/ha	@	\$71.11 /litre	\$71.11
Amistar	0.75 l/ha	@	\$128.88 /litre	\$96.66
Application costs	2	@	\$28.00 /litre	\$56.00
Straw Shortener (Moddus)	1 l/ha	@	\$138.48 /litre	\$138.48
Application costs		@	\$28.00	\$28.00
				\$390.25
Irrigation (75 mm)	3 x	@	\$47.00	\$141.00
(Electricity \$35.00; R&M \$11.00)				
Harvest - Windrow (contract)		@	\$80.00 /ha	\$80.00
Header (contract)		@	\$195.00 /ha	\$195.00
				\$275.00
Freight - (F.D.)	0.720 t	@	\$30.00 /tonne	\$21.60
Seed Dressing -	720 kg	@	\$0.22 /kg	\$158.40
<b>TOTAL DIRECT COSTS</b>				<b>\$1,405.08</b>
<u>GROSS MARGIN per Hectare</u>				<u>\$910.92</u>

#### Gross Margin per Hectare at various selling prices and yields.

		YIELD kg (MD)/ Hectare		
		450	600	750
PRICE	\$3.15	\$273.42	\$700.92	\$1,128.42
\$/kg	\$3.50	\$430.92	\$910.92	\$1,390.92
	\$3.85	\$588.42	\$1,120.92	\$1,653.42



### 3.3.7 Maize

#### MAIZE GROSS MARGIN Milling Grade - Gisborne 2003-2004

#### Income:

Per tonne                      12.50 t/ha @ \$285.00 /tonne                      \$3,562.50

#### Expenditure (per hectare):

Pasture Spray including application				\$80.00
Plough				\$130.00
Disc/Roll twice				\$130.00
Power harrow twice				\$220.00
Pre-emergence herbicide				\$90.00
Application				\$30.00
Drilling				\$90.00
Seed				\$360.00
Fertiliser (15 10 10)	250 kg/ha @	\$560.00	/tonne	\$140.00
Side Dressing Urea	250 kg/ha @	\$440.00	/tonne	\$110.00
Application				\$60.00
Weed and Pest control - post emergence				\$60.00
Harvest	13.6 t @	\$14.70	/tonne	\$200.60
Freight	13.6 t @	\$8.00	/tonne	\$109.17
Drying	13.6 t @	\$21.00	/tonne	\$286.57
<b>TOTAL DIRECT COSTS</b>				<b>\$2,096.34</b>
<u><b>GROSS MARGIN per Hectare</b></u>				<u><b>\$1,466.16</b></u>

#### Gross Margin per hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		10.625	12.5	14.375
<b>PRICE</b>	<b>\$256.50</b>	\$718.42	\$1,109.91	\$1,501.39
<b>PER</b>	<b>\$285.00</b>	\$1,021.23	\$1,466.16	\$1,911.08
<b>TONNE</b>	<b>\$313.50</b>	\$1,324.05	\$1,822.41	\$2,320.77

Source: Corson Grain Gisborne







## 3.4 VEGETABLE GROSS MARGINS

### 3.4.1 Process Crops – Production Cost Models

Editors' note:

The following production cost models (compiled May 2003) 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 2003

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	\$34.00 /t	\$17.00
Pre-work - grubbing 3 times	1.5 hrs	\$91.52 /hr	\$137.28
Preparation seedbed			
roll once	0.4 hrs	\$75.61 /hr	\$30.24
plough once	1.1 hrs	\$105.94 /hr	\$116.53
maxitill 3 times	1.2 hrs	\$91.52 /hr	\$109.82
roll once	0.4 hrs	\$75.61 /hr	\$30.24
Pre-emergence spray contract		\$22.00 /ha	\$22.00
Treflan	2.1 l	\$17.40 /l	\$36.54
Sowing contract		\$110.00 /ha	\$110.00
seed	110 kg	\$7.43 /kg	\$817.30
fertiliser - Cropmaster 15	0.375 t	\$438.00 /t	\$164.25
Post emergence spray contract		\$22.00 /ha	\$22.00
Basagran	2 l	\$46.00 /l	\$92.00
Cittowet	0.1 l	\$11.82 /l	\$1.18
ground spray contract		\$22.00 /ha	\$22.00
Topsin	2.5 l	\$44.80 /l	\$112.00
Sumisclex	2 l	\$23.68 /l	\$47.36
Irrigation 5 times	25 hrs	\$24.21 /hr	\$605.25
Labour	5 hrs	\$18.85 /hr	\$94.25
<b>TOTAL GROWING COSTS</b>			<b>\$2,587.26</b>
<b>REVENUE</b>			
Price received* (10.5-11mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	8	10	11
<b>TOTAL REVENUE</b>	<b>\$2,400</b>	<b>\$3,000</b>	<b>\$3,300</b>
Less growing Costs (from above)	\$2,587	\$2,587	\$2,587
<b>SURPLUS</b>	<b>(\$187)</b>	<b>\$413</b>	<b>\$713</b>

\* Editors' Note: See also *Section 1.14.3* for further contract price information

### 3.4.3 Sweetcorn (Source: Process Vegetable Sector, N.Z. Vegetable and Potato Growers Federation)

#### **SWEETCORN (PROCESS)**

Production Cost Model 2003

*Rangitikei 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 2 years	1.25 t/yr	\$33.12 /t	\$41.40
Preparation seedbed			
plough once	1.1 hr	\$107.54 /hr	\$118.29
disc and harrow once	1 hr	\$107.54 /hr	\$107.54
power harrow twice	1.5 hrs	\$133.60 /hr	\$200.40
level once	0.4 hrs	\$93.12 /hr	\$37.25
Sowing contract		\$85.00 /ha	\$85.00
seed	12 kg	\$30.00 /kg	\$360.00
nitro 12:10:10	0.25 t	\$537.00 /t	\$134.25
Pre emergence spray			
contract boom spray		\$27.50 /ha	\$27.50
Roustabout	3 l	\$37.08 /l	\$111.24
Post emergence spray			
aerial spray contract		\$30.00 /ha	\$30.00
Hallmark once	0.5 l	\$85.00 /ha	\$42.50
Inter-row cultivation contract		\$38.00 /ha	\$38.00
Maintenance of land			
flail stubble once	1 hr	\$93.12 /hr	\$93.12
<b>TOTAL GROWING COSTS</b>			<b>\$1,426.49</b>
<b>REVENUE</b>			
Price received per tonne	\$125	\$125	\$125
Crop yield paid weight (tonnes per ha)	15	17	19
<b>TOTAL REVENUE</b>	<b>\$1,875</b>	<b>\$2,125</b>	<b>\$2,375</b>
Less growing Costs (from above)	\$1,426	\$1,426	\$1,426
<b>SURPLUS</b>	<b>\$449</b>	<b>\$699</b>	<b>\$949</b>
<b>SURPLUS</b>	<b>\$449</b>	<b>\$699</b>	<b>\$949</b>

**SWEETCORN (PROCESS)**

Production Cost Model 2003

*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	\$55.00 /t	\$27.50
Preparation seedbed			
chip hoe once	1.6 hr	\$119.07 /hr	\$190.51
plough once	1.6 hrs	\$105.94 /hr	\$169.50
roll once	0.6 hrs	\$85.92 /hr	\$51.55
deep ripping	1.2 hrs	\$91.52 /ha	\$109.82
rollatill twice	1 hrs	\$91.52 /hr	\$91.52
harrow and roll twice	1 hrs	\$85.92 /hr	\$85.92
Sowing contract			
seed		\$493.00 /ha	\$493.00
contract sowing		\$61.95 /ha	\$61.95
fertiliser-cropmaster 15	0.37 t	\$455.00 /t	\$168.35
Post emergence spray		\$26.00 /ha	\$26.00
atrazine	3 l	\$7.95 /l	\$23.85
lorsban	0.6 l	\$26.12 /l	\$15.67
Scarify and side dress	1.25 hrs	\$85.92 /hr	\$107.40
urea	0.124 t	\$380.00 /t	\$47.12
Irrigation 3 times	18 hrs	\$17.07 /hr	\$307.26
labour	4 hrs	\$18.85 /hr	\$75.40
<b>TOTAL GROWING COSTS</b>			<b>\$2,052.33</b>
<b>REVENUE</b>			
Price received per tonne	\$156	\$156	\$156
Crop yield paid weight (tonnes per ha)	18	20	22
<b>TOTAL REVENUE</b>	<b>\$2,808</b>	<b>\$3,120</b>	<b>\$3,432</b>
Less growing Costs (from above)	\$2,052	\$2,052	\$2,052
<b>SURPLUS</b>	<b>\$756</b>	<b>\$1,068</b>	<b>\$1,380</b>

**SWEETCORN (PROCESS)**

Production Cost Model 2003

*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	\$7.50 /l	\$18.75
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
taron	1 l	\$32.00 /l	\$32.00
Land maintenance			
disc and roll twice		\$97.00 /ha	\$97.00
subsoil once		\$100.00 /ha	\$100.00
<b>TOTAL GROWING COSTS</b>			<b>\$1,947.46</b>
<b>REVENUE</b>			
Price received per tonne (Jubilee)	\$153	\$153	\$153
Crop yield paid weight (tonnes per ha)	16	17.5	19
<b>TOTAL REVENUE</b>	<b>\$2,448</b>	<b>\$2,678</b>	<b>\$2,907</b>
Less growing Costs (from above)	\$1,931	\$1,931	\$1,931
<b>SURPLUS</b>	<b>\$517</b>	<b>\$747</b>	<b>\$976</b>

### 3.4.4 Peas (Source: Process Vegetable Sector, N.Z. Vegetable and Potato Growers Federation)

#### **PEAS (PROCESS)**

Production Cost Model 2003

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	\$34.00 /t	\$17.00
Pre-work - grubbing 3 times	1.5 hrs	\$91.52 /hr	\$137.28
Preparation seedbed			
roll once	0.4 hr	\$75.61 /hr	\$30.24
plough once	1.1 hrs	\$105.94 /hr	\$116.53
maxitill twice	0.8 hr	\$91.52 /hr	\$73.22
Pre-emergence spray contract		\$18.00 /ha	\$18.00
Treflan	2.1 l	\$17.40 /l	\$36.54
Sowing	0.8 hr	\$143.35 /hr	\$114.68
seed	300 kg	\$1.41 /kg	\$423.00
fertiliser - PM super	0.15 t	\$502.00 /t	\$75.30
Cultivation			
roll 1 time	0.4 hrs	\$75.61 /hr	\$30.24
Post emergence spray contract		\$18.00 /ha	\$18.00
MCPB	2 l	\$13.65 /l	\$27.30
Bladex	2.5 l	\$25.50 /l	\$63.75
Irrigation 3 times	15 hrs	\$24.21 /hr	\$363.15
Labour	3 hrs	\$18.85 /hr	\$56.55
<b>TOTAL GROWING COSTS</b>			<b>\$1,600.79</b>
<b>REVENUE</b>			
Price received (11.5-12mm) per tonne	\$283	\$283	\$283
Crop yield paid weight (tonnes per ha)	6.0	6.5	7
<b>TOTAL REVENUE</b>	<b>\$1,698</b>	<b>\$1,840</b>	<b>\$1,981</b>
Less growing Costs (from above)	\$1,601	\$1,601	\$1,601
<b>SURPLUS</b>	<b>\$97</b>	<b>\$239</b>	<b>\$380</b>

\* Editors' Note: See also *Section 1.14.15* for further contract price information

**PEAS (PROCESS)**  
 Production Cost Model 2003  
 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	\$97.82 /hr	\$146.73
Preparation seedbed			
plough once	1 hrs	\$112.24 /hr	\$112.24
roll once	0.4 hrs	\$81.91 /hr	\$32.76
grub and harrow twice	1 hrs	\$97.82 /hr	\$97.82
Pre-emergence spray contract		\$18.00 /ha *	\$3.60
Roundup	2.5 l	\$14.50 /l *	\$7.25
Sowing	0.6 hr	\$113.38 /hr	\$68.03
seed	280 kg	\$1.30 /kg	\$364.00
cartage - seed and fertiliser	0.465 t	\$20.00 /t	\$9.30
fertiliser - ammophos/hycrop pe	0.185 t	\$498.73 /t	\$92.27
roll once	0.4 hrs	\$81.91 /hr	\$32.76
Post emergence spray contract		\$18.00 /ha	\$18.00
MCPB	1.4 l	\$12.85 /l	\$17.99
Bladex	2.5 kg	\$23.90 /kg	\$59.75
Gallant (wild oats)	1 l	\$81.50 /l *	\$16.30
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 - 3 times	6 hrs	\$22.37 /hr	\$134.22
Labour	1.5 hrs	\$25.15 /hr	\$37.73
<b>TOTAL GROWING COSTS</b>			<b>\$1,273.03</b>
<b>REVENUE</b>			
Price received TR 4-5 per tonne	\$307	\$307	\$307
Crop yield paid weight (tonnes per ha)	5.0	6	6.0
<b>TOTAL REVENUE</b>	<b>\$1,535</b>	<b>\$1,689</b>	<b>\$1,842</b>
Less growing Costs (from above)	\$1,273	\$1,273	\$1,273
<b>SURPLUS</b>	<b>\$262</b>	<b>\$415</b>	<b>\$569</b>

\* 20% of properties only

**PEAS (PROCESS)**  
 Production Cost Model 2003  
*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	\$33.12 /yr	\$33.12
Preparation seedbed			
plough once	1.1 hrs	\$107.54 /hr	\$118.29
disc and harrow once	1 hrs	\$107.54 /hr	\$107.54
power harrow twice	1.5 hrs	\$133.60 /hr	\$200.40
level once	0.4 hrs	\$93.12 /hr	\$37.25
Sowing contract			
contract sowing (incl rolling)		\$72.25 /ha	\$72.25
seed and cartage	250 kg	\$1.35 /kg	\$337.50
contract fertiliser spreading and cartage		\$41.00 /ha	\$41.00
30% P Super	0.25 t	\$248.60 /t	\$62.15
Post emergence spray contract		\$32.50 /ha	\$32.50
bladex	3 l	\$22.50 /l	\$67.50
mcpb	1.4 l	\$13.17 /l	\$18.44
mcpa	0.15 l	\$6.76 /l	\$1.01
Mildew spray contract aerial		\$30.00 /ha	\$30.00
folicur	0.25 l	\$128.00 /l	\$32.00
 TOTAL GROWING COSTS			 \$1,190.95
 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)	 \$1,190.95	 \$1,190.95	 \$1,190.95
 SURPLUS	 \$459.05	 \$609.05	 \$759.05

**PEAS (PROCESS)**

Production Cost Model 2003

*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	\$55.00 /t	\$27.50
Preparation seedbed			
chip hoe once	1.6 hrs	\$119.07 /hr	\$190.51
harrow and roll once	0.5 hrs	\$91.52 /hr	\$45.76
plough once	1.6 hrs	\$105.94 /hr	\$169.50
rotatill 3 times	1.5 hrs	\$119.07 /hr	\$178.61
harrow and roll twice	1.2 hrs	\$91.52 /hr	\$109.82
Sowing			
seed	300 kg	\$1.30 /kg	\$390.00
fertiliser - Super	0.25 t	\$191.00 /t	\$47.75
Post emergence spray contract		\$26.00 /t	\$26.00
topoguard	0.9 l	\$46.12 /l	\$41.51
<b>TOTAL GROWING COSTS</b>			<b>\$1,226.96</b>
<b>REVENUE</b>			
Price received (11.5-12mm) per tonne	\$307	\$307	\$307
Crop yield paid weight (tonnes per ha)	4.5	5.5	6.5
<b>TOTAL REVENUE</b>	<b>\$1,382</b>	<b>\$1,689</b>	<b>\$1,996</b>
Less growing Costs (from above)	\$1,227	\$1,227	\$1,227
<b>SURPLUS</b>	<b>\$155</b>	<b>\$462</b>	<b>\$769</b>

**PEAS (PROCESS)**

Production Cost Model 2003

*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	\$118.45 /hr	\$189.52
disc and roll once	0.9 hrs	\$118.45 /hr	\$106.61
disc and harrow twice	1.6 hrs	\$118.45 /hr	\$379.04
Sowing contract-drill		\$85.00 /ha	\$85.00
seed (storage and transport)	270 kg	\$1.28 /kg	\$345.60
fertiliser -P super	0.25 t	\$340.00 /t	\$85.00
roll once	1 hr	\$98.95 /hr	\$98.95
Post emergence spray contract		\$38.00 /ha	\$38.00
MCPB	1.4 l	\$9.65 /l	\$13.51
Bladex	3 l	\$24.07 /l	\$72.21
Restoration of land cultivation			
disc and harrow twice	1.6 hrs	\$98.95 /hr	\$316.64
<b>TOTAL GROWING COSTS</b>			<b>\$1,730.08</b>
<b>REVENUE</b>			
Price received (11.5-12mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	4.5	5	5.5
<b>TOTAL REVENUE</b>	<b>\$1,350</b>	<b>\$1,500</b>	<b>\$1,650</b>
Less growing Costs (from above)	\$1,730	\$1,730	\$1,730
<b>SURPLUS</b>	<b>(\$380)</b>	<b>(\$230)</b>	<b>(\$80)</b>

### 3.4.5 Process Vegetable Crop Gross Margins 2002/2003

<b>Crop</b>	<b>Gross Margin per ha</b>
Peas - Gisborne	\$490
Peas - Hawkes Bay	-\$29
Peas - Rangitikei	\$576
Sweetcorn - Gisborne	\$1,747
Sweetcorn - Rangitikei	\$714
Squash – Gisborne	\$1,298
Asparagus – Hawkes Bay	\$2,036

*Source: Agriculture New Zealand Ltd, New Zealand Vegetable and Potato Growers Federation (Inc) and Horticulture Monitoring Report – July 2003.*

### 3.4.6 Main Crop Vegetable Gross Margins (\$ per ha)

<b>Crop</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
Broccoli	\$695	\$840	-\$250	\$2,545	\$2,677	\$532	\$3,555
Cabbage	\$2,630	\$2,380	\$3,060	\$3,211	\$3,223	\$4,874	\$2,056
Cauliflower	\$2,750	\$2,490	\$3,250	\$3,672	\$3,762	\$4,257	\$4,013
Lettuce	\$3,010	\$2,600	\$3,695	\$2,673	\$2,454	\$2,996	\$3,044
Onions	\$5,800	\$405	\$1,035	-\$1,353	\$3,142	\$6,298	-\$1,262
Potatoes	\$4,050	\$1,150	\$950	-\$57	\$1,099	\$977	\$290

*Source: Agriculture New Zealand and Horticulture Monitoring Report – July 2003*

### 3.4.7 Vegetable Crop Gross Margins – Canterbury 2001/2002

<b>Crop</b>	<b>Gross Margin per ha</b>
Green Beans	\$1,127
Peas	\$949
Sweetcorn	\$762
Carrots	\$632
Potatoes	\$4,810

*Source: Agriculture New Zealand Ltd, and Horticulture Monitoring Report – July 2002*

### 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 2003

Based on effective planted area at full production of 15 ha with a conservative yield and an export price averaged over a range of varieties. (Figures are forecast for 2003)

#### Income:

Apple Sales (mix of varieties)

Advanced	\$43,866	
		\$43,866

#### Expenditure (per hectare):

Fertiliser	\$198	
Spray and Chemicals	\$2,400	
Pollination	\$75	
Electricity	\$144	
Casual wages - pruning	\$1,127	
- thinning	\$1,876	
- picking	\$4,608	
- other	\$1,064	
- ACC	\$116	\$8,791
Grading and Packing	\$13,435	
Freight	\$581	
Coolstore charges	\$3,647	
Vehicles	\$747	
Administration and Sundry	\$2,437	
Repairs and maintenance	\$646	
<b>TOTAL DIRECT COSTS</b>		<b>\$33,101</b>
<b>GROSS MARGIN PER HECTARE</b>		<b>\$10,765</b>
<u>GROSS MARGIN per Tray Carton Equivalent</u>		<u>\$3.24</u>

Updated for 2003 using forecast figures from *Horticulture Monitoring Report - July 2003*.

### 3.5.2 Kiwifruit

#### ZESPRI™ GREEN - Bay of Plenty 2003/2004 season

**Income:** (Based on effective planted area at full production)

Trays per hectare (export)	6100 /ha @	\$5.25	\$32,025.00
Final payment (from previous season * )		\$0.43	\$2,623.00
Local Sales			\$1,000.00

**Expenditure** (per hectare):

Administration		\$2,864.00	
Fertiliser		\$1,300.00	
Pollination		\$1,220.00	
Spraying and Chemicals		\$1,260.00	
Casual Wages - Pruning and general	\$7,500.00		
- Picking	\$1,685.00	\$9,185.00	
Grade and Pack (estimate)		\$10,000.00	
Electricity		\$190.00	
Vehicle Expenses		\$1,300.00	
Repairs and Maintenance		\$1,870.00	
Other		\$166.00	

TOTAL DIRECT COSTS \$29,355.00

GROSS MARGIN PER HECTARE \$6,293.00

GROSS MARGIN per Tray \$1.03

#### ZESPRI™ GOLD - Bay of Plenty 2003/2004 season

**Income:** (Based on effective planted area at full production)

Trays per hectare (export)	7500 /ha @	\$6.35	\$47,625.00
Final payment (from previous season * )		\$0.51	\$3,825.00
Local Sales			\$700.00

**Expenditure** (per hectare): as above \$29,355.00

GROSS MARGIN PER HECTARE \$22,795.00

GROSS MARGIN per Tray \$3.74

\* Residual payment for each crop is paid to growers in the next financial year.

Updated for 2003/2004 using forecast figures from *Horticulture Monitoring Report - July 2003*

### 3.5.3 Summerfruit Gross Margin Trends

Crop	Region	Market	Gross Margin (\$ per ha)			
			2002/03	2001/02	2000/01	
Apricots	Otago	Export/local/process	\$21,232	\$8,416	\$17,340	
		Process	\$-1700	\$550	\$7,570	
		Local/process	\$15,040	\$6,094	\$9,552	
	Hawkes Bay	Local	\$2,450	\$6,780	\$18,100	
Cherries	Otago	Local	\$25,635	-\$9,850	\$11,446	
		Export/local	\$78,200	\$42,080	\$73,747	
Greengages	Otago	Export	\$40,720	\$55,900	-	
Nectarines	Otago	Export/local	\$32,037	-\$5,340	\$14,100	
	Hawkes Bay	Local/process	\$6,613	\$6,084	\$17,470	
Plums	Otago	Local/process	\$28,020	\$13,380	\$7,651	
	Hawkes Bay	Local	\$12,050	\$6,780	\$20,500	
Peaches	Otago	Local	\$18,406	\$1,570	-	
		Hawkes Bay	Local	\$3,848	\$2,280	\$17,470
		Process	-\$200	\$4,500	\$4,500	

Source: Horticulture Monitoring Reports – July 2001, 2003

### 3.5.4 Berryfruit Gross Margin Trends

Berryfruit	Product	Gross Margins \$ per ha			
		2002/2003	2001/2002	2000/2001	1999/2000
Strawberries	Fresh	\$17,949	\$16,105	\$18,256	\$27,259
Blueberries	Fresh	\$29,672	\$26,518	\$34,406	\$38,863
	Frozen	\$5,515	\$5,369	\$5,479	\$3,380
Boysenberries	Frozen	\$8,046	\$1,371	\$3,340	\$5223
Raspberries	Frozen	\$8,568	\$5,597	\$4,601	\$17,401
Blackcurrants	Frozen	\$4,570	\$3,317	\$4,601	\$4,374

Source: NZ Berryfruit Growers Federation Inc, Strawberry Growers New Zealand, Horticulture Monitoring Report - July 2003.

### 3.5.5 Wine Grapes

#### PREMIUM WINE GRAPES

2003 Season

**Assumptions:**

Yield 9.9 tonnes per ha

Grown under contract.

2000 vines per ha

**Income:**

*Premium grapes*                      9.9 tonnes @ \$2,150 per tonne    \$21,285.00

**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	
<i>Trimming</i>	\$300.00		
<i>Harvesting</i>	9.9 tonnes @ \$70 per tonne	\$693.00	
Leaf plucking	2000 vines @ 20 cents per vine	\$400.00	
Bird Control		\$340.00	
			\$6,423.00
<b>GROSS MARGIN (per ha)</b>			<b>\$14,862.00</b>

Gross Margin per ha at 10%  
variation in yield and price

		Yield tonnes per ha		
		8.9	9.9	10.9
<b>Price</b>	<b>\$1,935</b>	\$10,868	\$12,734	\$14,599
<b>per</b>	<b>\$2150</b>	\$12,782	\$14,862	\$16,942
<b>tonne</b>	<b>\$2,365</b>	\$14,966	\$16,990	\$19,286

Source: Horticulture Monitoring Report – July 2003

**BULK WINE GRAPES**  
2003 Season

Assumptions:

Yield 15.6 tonnes per ha  
Grown under contract  
2000 vines per ha

**Income:**

*Premium grapes*                      15.6 tonnes @ \$600 per tonne    \$9,360.00

Expenditure:

Pruning	2000 vines @ 20 cents per vine	\$400.00	
Chemicals and application		\$1,210.00	
Training ( includes desuckering)		\$1,600.00	
<i>Trimming</i>	<i>\$300.00</i>		
<i>Harvesting</i>	<i>15.6 tonnes @ \$60 per tonne</i>	<i>\$1,092.00</i>	
Leaf plucking (machine)		\$150.00	
Bird Control		\$340.00	
			\$5,092.00
<b>GROSS MARGIN (per ha)</b>			<b>\$4,268.00</b>

Gross Margin per ha at 10%  
variation in yield and price

		Yield tonnes per ha		
		14	15.6	17.2
<b>Price</b>	<b>\$540</b>	\$2,580	\$3,332	\$4,084
<b>per</b>	<b>\$600</b>	\$3,420	\$4,268	\$5,116
<b>tonne</b>	<b>\$660</b>	\$4,260	\$5,204	\$6,148

*Source: Horticulture Monitoring Report – July 2003*

### 3.6 FLOWER GROSS MARGINS

#### 3.6.1 Export Calla Lilies (*Zantedeschia*)

##### CALLA LILY GROSS MARGIN

10,000 Mixed size tuber, selling flowers and exporting tubers

Note: This is included as an example only, as updated information for 2003/04 was unavailable.

##### **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%	\$1,218.75	
Levy	@ 2%	\$195.00	\$4,338.75

Tubers -

Cultivation and planting			
- casual labour	20 hrs	@ \$12.00	\$240.00
- machinery hire	6 hrs	@ \$50.00	\$300.00
Replacement tuber stock			\$1,000.00
Lifting & grading - labour	250 hrs	@ \$12.00	\$3,000.00
Lifting			
- machinery hire	5 hrs	@ \$60.00	\$300.00
Washing, Curing and Storing 70 trays (1250mm x 900mm)			
(contract)	70	@ \$20.00	\$1,400.00
			\$6,240.00
Fertilizer			\$150.00
Weed Control			\$250.00
Pest and Disease			\$550.00

TOTAL DIRECT COSTS \$11,528.75

TOTAL GROSS MARGIN per 10,000 Tubers (before interest) \$5,221.25

GROSS MARGIN per dollar invested in Calla Tubers \$0.30

**Gross Margin per 10,000 mixed sized tubers  
at varying flower/tuber production and prices**

		NUMBER OF FLOWERS/TUBERS SOLD			
		8775 4500	9750 5000	10725 5500	Flowers Tubers
<b>PRICE OF FLOWERS/ TUBERS</b>	<b>\$0.50 /</b>	(\$2,921.19)	(\$2,446.88)	(\$1,972.56)	
	<b>\$0.70</b>				
	<b>\$1.00 /</b>	\$3,980.13	<b>\$5,221.25</b>	\$6,462.38	
	<b>\$1.40</b>				
	<b>\$1.50 /</b>	\$10,881.44	\$12,889.38	\$14,897.31	
	<b>\$2.10</b>				

Interest on Capital invested in Tubers  
\$17,000 @ 7.5% \$1,275.00

RETURN per 10,000 tubers after interest \$3,946.25

### 3.6.2 Flower Gross Margin Trends

<b>Crop</b>	<b>2002/03</b>	<b>2001/02</b>	<b>2000/01</b>	<b>1999/00</b>
	\$ per square metre			
Callas – cut flowers (greenhouse)	\$23.80	\$21.90	\$25.04	\$32.04
Callas – cut flowers (field)	\$5.20	\$6.00	\$12.62	\$16.33
Callas – T1 tubers (greenhouse)	\$13.50	\$10.90	\$10.09	\$10.09
Orchids (cymbidium) (greenhouse)	\$29.70	\$31.20	\$35.18	\$30.32
Peony Rose (field)	\$19.50	\$30.00	\$9.14	\$6.31
Roses (greenhouse)	\$6.80	\$7.30	\$30.69	\$30.69
Sandersonia – cut flowers (greenhouse)	\$24.90	\$26.40	\$40.78	\$53.27
Sandersonia – tubers (shadehouse)	\$25.50	\$25.30	\$31.12	\$36.76

*Source: Horticulture Monitoring Report - July 2001, July 2003*

## **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 2004) 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.

**Note:** Before reading this section, please refer to the disclaimer in the Preface of this Manual.

## **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 implications 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 be 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 1998-2004 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%)
EDW	Election day workers. (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 1<sup>st</sup> 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 \$35,000.

*Provisional Tax is Calculated as Follows:*

- Based on previous year's tax

For the 2003/2004 income year, the methods of determining provisional tax payable will be:

105% of 2002/2003 RIT

- 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 2003/04 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 care 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 2002/03 RIT and pays 2004 provisional tax of \$10,000. His total income is \$53,875. Total tax due in his 31 March 2004 tax return (in whole dollars) is:

Tax on total income	\$12,649
Less rebates (say)	<u>50</u>
Tax payable	\$12,599
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 2005. Because his residual income tax is less than \$35,000 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 2004 to 7 February 2005 (337 days).

For the 2004 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 2004 (one third)	\$4,059
7 November 2004 (one third)	\$4,059
7 March 2005 (one third)	\$4,059

### Provisional Tax 2003/04

Key features are summarised as follows:

	<b>Safe harbour Current rules</b>	<b>Non-safe harbour Taxpayers</b>
<b>Classification</b>	All natural person provisional taxpayers except: <ul style="list-style-type: none"> <li>• those with RIT greater than \$35,000</li> <li>• those who opt out</li> <li>• trustees</li> <li>• those with certificates of exemption</li> </ul>	All provisional taxpayers other than those safe harbour.
<b>Interest Starting date:</b>	Terminal tax date for those safe-harboured	The interest applies from first instalment date in all cases
<b>Estimation:</b>	Not required. A taxpayer who estimates leaves the safe harbour	Estimates not required
<b>Instalment amount:</b>	Formula (based on 105% of last year's RIT)	Formula or estimate. A requirement that taxpayers take reasonable care if they estimate.
<b>Late payment penalty:</b>	Yes	Yes, if taxpayer pays less than estimated or required by formula.

<b>Interest on overpayments:</b>	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)
<b>Interest on underpayments:</b>	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 under-deducted 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 11.93% p.a., while interest on overpayment will be paid to the taxpayer by the IRD at 4.83% 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). The 5% penalty is charged in two stages. The first 1% is charged on the day immediately after the due date for payment. The remaining 4% is charged if the tax remains unpaid seven days after its due date. The late payment penalty does not apply if unpaid tax is \$100 or less. 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 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 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 4,500m<sup>2</sup> 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 4500m<sup>2</sup> 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 can be filed at any time. 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:

<b>Income</b>	<b>Rebate</b>	<b>Effective tax rate</b>
\$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<sup>1</sup>/<sub>3</sub>% 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 2004 income year are as follows:

	2003/04
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 2003.

For the 2003/04 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:*

<i>Family support credit, s KD 2(3)</i>	\$	\$	\$
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>			
\$780 x 3 children		2,340	
Newborn child (\$780 x 151/365 days)		<u>323</u>	
			2,663
 <i>Personal tax credit, s KD 2(5)*</i>			
\$1,200 x 1 dependent child			<u>1,200</u>
			11,415
 <i>Family credit abatement, s KD 2(6)(b)(iii)</i>			
Specified income	37,500		
Exceeds	<u>27,000</u>	1,260	
	10,500		
Plus 30c/dollar excess (\$10,500 x 30c)		<u>3,150</u>	
Abatement			<u>4,140</u>
Tax credit payable to principal caregiver			7,005
(Amounts have been rounded)			

\* 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 2003/2004 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><u>\$67.00</u></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. However, the maximum possible imputation credit also cannot exceed the ratio multiplied by the dividend, i.e. \$16.25 (\$33.00 x 49.25%). 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 to *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 period of loss to the end of the period 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 2003/04 Income Year**

Amendments applying to the 2001/02 income year now 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. This applies where these 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 2004, 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

*Diminished value for next year's calculation = \$4375 (\$5000 - \$625)*

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 x 22% = \$4,620
Pool value at end of year	= \$24,000 - \$4,620 = <u>\$19,380</u>

### ***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. Fruit growers can deduct the costs of purchasing and planting.

### ***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 herd scheme.
- (iii) dairy and beef cattle have been separated into two livestock types.

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, 2001, 2002 and 2003 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 <sub>2</sub> 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 <sub>2</sub> 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

$$\begin{aligned}\text{Opening stock numbers} \times (\text{Year 1 cost} + \text{RG}_2) \\ \text{i.e. } 400 \times (\$16.43 + \$8)\end{aligned}$$

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:

$$700 \times \$26.29$$

$$\underline{18,403}$$

$$\underline{\underline{\$53,403}}$$

$$\text{Average cost per head} = \$53,403 \div 2100 = \$25.43 \text{ per head}$$

**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.

### ***Elections and notices***

The various election and notice requirements for specified livestock valuation are detailed in s EL 2. Most elections relate to changes between various valuation alternatives. In some cases, elections can be made by using the chosen method of livestock valuation in the relevant tax return. Otherwise, a same-year written notice or a two-year written notice is required. The notice requirements are as follows:

<i>Movement from:</i>	<i>Movement to:</i>				
	<i>National standard cost</i>	<i>HS</i>	<i>HVR</i>	<i>Self-assessed cost</i>	<i>MV/RP</i>
National standard cost	N/A	same-year	two-year	two-year	not required
HS	two-year	N/A	two-year	two-year	two-year
HVR	two-year	Not allowed	N/A	two-year	two-year
Self-assessed cost	two-year	same-year	two-year	N/A	not required
MV/RP	not required	same-year	two-year	not required	N/A

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 at the time of purchase, it was capable of being used for breeding 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:

<b>Livestock Category</b>	<b>Straight Line Rate (%)</b>	<b>Diminishing Value Rate (%)</b>
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.

#### ***Forestry Planting 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*).

Subject to certain requirements, fruit growers can deduct the costs of purchasing and planting vines or fruit-bearing trees on land. Section DO 4 allows taxpayers a depreciation type of deduction for land development expenditure of any of the kinds listed in Part A of sch 7 which is incurred as part of a farming or agricultural business. Part A of sch 7 is reproduced at 50-165. Schedule 7 lists expenditure incurred on the planting of vines or trees on the land other than trees planted primarily and principally for the purpose of timber production. The Commissioner has stated that expenditure on both fruit-bearing trees and trees planted for shelter or erosion control purposes qualifies. See CCH, *New Zealand IRD Technical Rulings*, para 49.4.1.2.4 (historical reference only – see 1-525).

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.

A January 2004 press release states that the Government proposes to introduce legislation to allow a limited proportion of replacement planting to be tax deductible in a current income year. At present, a current year deduction is possible only for a tree or vine of the same species and variety that has died or been destroyed.

Under the new system, some replacement planting expenditure would be treated as repairs and maintenance. On average, expenditure in relation to 5 per cent of the area of an orchard would be deductible in a single income year, and growers could replace plants when they wanted to, using different varieties if they wished.

### **Changes to tax treatment of fruit trees and vines**

The tax treatment of fruit trees and vines is listed as an area receiving consideration by the Government in its tax policy programme for 2003/04.

Specifically, the policy division of the IRD is looking at:

- increasing the depreciation rate for trees and vines (currently DV 10%); and

- examining whether the current concessionary IRD practice of allowing an up-front deduction for trees and vines which replace dead or destroyed trees and vines can be written into the legislation.

The policy division of the IRD has indicated that any such proposals to alter the *Income Tax Act* will be presented as draft legislation around mid-2004.

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.

*Using Discounted Selling price to Value Nursery Stock*

Nursery growers 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 are divided into seven categories. The DSP of mature plants in each category are calculated by multiplying the selling price of the plant by the DSP value. The 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 45%).

### **Immature Plants**

The DSP of immature plants is calculated 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**

The value of plants past their prime, or whose value drops is calculated 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 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.

<b>Circumstance</b>	<b>Treatment</b>
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 (see *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 Quotas

Property rights in fishing quotas (individual transferable quotas or ITQs) came into existence in 1986 under the *Fisheries Act 1983*. Since that time, *the Fisheries Act 1996* and various other amendments have been introduced, and the elements of ITQ are now distinguished as “quota shares”, the property right, and “annual catch entitlement”, or ACE, the catching right. Quota shares give the owner right to fish in perpetuity. They are also transferable, subject to certain limitations such as foreign ownership. The ACE is the percentage of total annual tonnage entitlement available for that species in a certain zone, according to the number of quota shares held. The ACE is often transferred between owners to create balanced packages of quota for each owner to fish against. The transfer price or resource rental paid (based on the tonnage of fish which can be caught) is a revenue expense and is therefore deductible. If a fishing company has a balance date other than 30 September, the balance of unused ACE will generally be accounted for as a prepaid expense.

The Inland Revenue Department views quota shares as capital assets so that, generally, payments made on the sale of quota shares are non-taxable to the seller and non-deductible to the purchaser. Profits from the sale of quota shares may be gross income of the seller where the seller is either in the business of dealing in them or if the quota shares have been acquired for the purpose of selling or otherwise disposing of them. In addition, quota shares cannot be depreciated for tax purposes.

A lump sum paid to the Crown to lease a quota (usually for a term of less than 12 months) and the resource rental payable under the lease are revenue payments and therefore deductible. If ownership of quota shares passes after a period of years without payment or further consideration, the lump sum paid is capital expenditure and is not deductible. The resource rental remains a deductible revenue outgoing.

Any ACE not used by the owner of the relevant quota shares during a year may be transferred to another fishing operation within that year and up to 15 days from the end of the fishing year (30 September). The value paid for transfer is gross income of the transferor and deductible by the transferee.

### 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 'Maritime Transport Act 1994' 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.

### ***Secondhand goods credit***

The Commissioner has released four public binding rulings on whether or not a GST-registered person can claim a secondhand GST input tax credit on the purchase of a fishing quota, a marine farming lease, a marine farming licence or a coastal permit for the principal purpose of making taxable supplies. Briefly, the rulings provide as follows:

- No secondhand input tax credit may be claimed for the purchase of fishing quota (BR Pub 03/07).
- A secondhand input tax credit may be claimed for the purchase of a marine farming lease or licence if the following criteria are met (BR Pub 03/08 and BR Pub 03/09, respectively):
  - the marine farming lease or licence defines the area subject to the lease by means of a legal description giving an area in hectares (or equivalent) and its position on a survey plan;
  - the legal effect of the marine farming lease or licence is that the seabed is not excluded from the area leased or licenced (BR Pub 03/08); and
  - the vendor used the marine farming lease or licence to carry on the marine farming activity specified in the lease or licence;
  - the marine farming lease or licence is situated in New Zealand at the time of supply;

- the purchaser maintains sufficient records as required under the GST legislation; and
  - the vendor and purchaser are not associated persons;
- No secondhand input tax credit may be claimed for the purchase of a marine farming permit in conjunction with either a coastal permit or certificate of compliance (BR Pub 03/10).

#### **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. The term “matrimonial agreement” now extends to agreements between de facto couples in circumstances where the Property (Relationships) Act 1976 applies. 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:

<b>Period</b>	<b>Rate %</b>
1 October 2003 onwards	7.08
1 June 2003 to 30 September 2003	7.33
1 July 2002 to 31 May 2003	7.83
1 January 2002 to 30 June 2002	7.50
1 October 2001 to 30 December 2001	6.70

### ***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**

(Example from Tax Information Bulletin Vol. 12 No. 11 Nov 2000)

### **Detailed example 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 <sup>1</sup>	Medical insurance <sup>2</sup>	Discounted goods <sup>3</sup>
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
				<b>Total value of all benefits</b>	\$6,300

\* Based on a \$30,000 vehicle used every day in the quarter (90 days).

<sup>1</sup> The contributions to a foreign superannuation scheme are covered by paragraph (g) of section CI 1 and therefore is a category of benefits.

<sup>2</sup> The medical insurance premiums are covered by paragraph (f) of section CI 1 and therefore is a category of benefits.

<sup>3</sup> 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 <sup>1</sup>	\$10,200	\$67,730
Employee 1	\$50,000	\$11,370 <sup>2</sup>	\$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 <sup>3</sup>
Employee 1	\$16,906.71 <sup>4</sup>

<sup>1</sup> Tax on cash remuneration for CEO is as follows:  $(\$38,000 * 19.5\%) + ((\$60,000 - \$38,000) * 33\%) + ((\$80,000 - \$60,000) * 39\%) = \$22,470$ .

<sup>2</sup> Tax on cash remuneration for employee 1 is as follows:  $(38,000 * 19.5\%) + ((\$50,000 - \$38,000 * 33\%) = \$11,370$ .

<sup>3</sup> Tax on fringe benefit-inclusive remuneration for CEO is as follows:  $(\$8,075 * 17.65\%) + ((\$30,590 - \$8,075) * 26.58\%) + ((\$45,330 - \$30,590) * 49.25\%) + ((\$67,730 - \$45,330) * 63.93\%) = \$28,989.48$ .

<sup>4</sup> 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
Employee1	\$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.

<b>Pool</b>	<b>Value of non-attributed benefits</b>	<b>FBT rate</b>	<b>FBT liability</b>
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)	<b>Plus</b> the FBT liability calculated in step 4 (FBT on non-attributed benefits)	<b>Less</b> 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.

#### **4.12.5 Proposed Changes to Fringe Benefit Tax**

The IRD released a discussion document on 11 December 2003, that proposes a number of changes designed to make the FBT regime more consistent, fairer and to reduce compliance costs.

Proposed changes include:

- raising the threshold on minor benefits from \$75 to \$200 per quarter per employee and from \$450 to \$2000 per quarter for the employer.
- exempting employer-owned work tools, eg. Laptop computers and cell phones
- vehicle-related amendments
  - value based on 20% of cost (currently 24%)
  - employers may elect the start time for FBT purposes
  - allow the lower of depreciated value or cost
  - leased vehicles to be treated the same as owned vehicles
  - treatment of car parks to be reviewed.

## 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 5% for the first seven days, and a further 1% 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>
<b>GST PAYABLE</b> (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 \$1000.

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 2004/2005 income year, employers will pay the:

- residual claims levy based on 2003/04 earnings and
- employer premium based on 2004/05 employee 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 2004 are set out in *Section 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 2004 are set out in *Section 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 \$88,728.

### **4.14.2 Levies on the Self-Employed**

In the 2003/04 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 2004 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 2003/2004 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 2002/03 income year or \$15,000.

The maximum amount of earnings on which the earner premium and self-employed work account premium is payable is \$88,728. 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 18 or over - \$16,640.
- for a person aged under 18 - \$13,312.

If a person earns income both from self-employment and as an employee, ACC premiums will be payable on the self-employed income. A self-employed person who is engaged in two or more self-employed activities must pay the self-employed work account levy at the highest applicable rate.

#### **4.14.3 ACC Levy Rates 2004/2005**

The Minister for ACC has announced the average levy rates for 2004/05. These are as follows:

Employer:	91c per \$100 of payroll
Self-employed work:	\$1.73 per \$100 of liable earnings
Earners:	\$1.20 per \$100 of liable earnings
Residual claims:	30c per \$100 of earnings

## 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 03	Feb 04	June 04	Oct 04	Sept 04
Nov 03	March 04	July 04	Nov 04	Oct 04
Dec 03	April 04	Aug 04	Dec 04	Nov 04
Jan 04	May 04	Sept 04	Jan 05	Dec 04
Feb 04	June 04	Oct 04	Feb 05	Jan 05
March 04	July 04	Nov 04	March 05	Feb 05
April 04	Aug 04	Dec 04	April 05	Feb 05
May 04	Sept 04	Jan 05	May 05	Feb 05
June 04	Oct 04	Feb 05	June 05	Feb 05
July 04	Nov 04	March 05	July 05	Feb 05
August 04	Dec 04	April 05	Aug 05	Feb 05
Sept 04	Jan 05	May 05	Sept 05	Feb 05

**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*

#### 2004 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*

#### 2003 Income Year

*Source: Tax Information Bulletin Vol 15 No.3 (March 2003)*

<b>Kind of Livestock</b>	<b>Category of Livestock</b>	<b>National Standard Cost \$</b>
Sheep	Rising 1 year	21.50
	Rising 2 year	13.90
Dairy Cattle	Purchased bobby calves	143.00
	Rising 1 year	612.00
	Rising 2 year	97.10
Beef Cattle	Rising 1 year	202.00
	Rising 2 year	117.00
	Rising 3 year male non-breeding cattle (all breeds)	117.00
Deer	Rising 1 year	64.40
	Rising 2 year	32.50
Goats (Meat & Fibre)	Rising 1 year	16.30
	Rising 2 year	11.20
Goats (Dairy)	Rising 1 year	96.90
	Rising 2 year	15.80
Pigs	Weaners to 10 weeks of age	83.40
	Growing pigs 10 to 17 weeks of age	65.70

#### 2002 Income Year

*Source: Tax information Bulletin Vol 14 No. 2 (February 2002)*

<b>Kind of Livestock</b>	<b>Category of Livestock</b>	<b>National Standard Cost \$</b>
Sheep	Rising 1 year	19.00
	Rising 2 year	12.20
Dairy Cattle	Purchased bobby calves	164.00
	Rising 1 year	569.00
	Rising 2 year	98.40
Beef Cattle	Rising 1 year	179.00
	Rising 2 year	103.00
	Rising 3 year male non-breeding cattle (all breeds)	103.00
Deer	Rising 1 year	59.50
	Rising 2 year	29.80
Goats (Meat & Fibre)	Rising 1 year	14.50
	Rising 2 year	9.80
Goats (Dairy)	Rising 1 year	91.60
	Rising 2 year	15.20
Pigs	Weaners to 10 weeks of age	79.60
	Growing pigs 10 to 17 weeks of age	63.20

## 2001 Income Year

Source: Tax Information Bulletin Vol 131 No.2 (February 2001.)

<b>Kind of Livestock</b>	<b>Category of Livestock</b>	<b>National Standard Cost \$</b>
Sheep	Rising 1 year	17.00
	Rising 2 year	10.70
Dairy Cattle	Purchased bobby calves	156.00
	Rising 1 year	427.00
	Rising 2 year	77.60
Beef Cattle	Rising 1 year	152.00
	Rising 2 year	89.30
	Rising 3 year male non-breeding cattle (all breeds)	89.30
Deer	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

## National Average Market Values

### 2003 Income Year

Source: Tax information Bulletin Vol 15, No 6 (June 2003)

Type of Livestock	Classes of Livestock	Average market Value per Head
		\$
Sheep	Ewe hoggets	62
	Ram and wether hoggets	58
	Two-tooth ewes	87
	Mixed-age ewes (rising three-year and four-year old ewes)	78
	Rising five-year and older ewes	61
	Mixed-age wethers	45
	Breeding rams	142
Beef cattle	<i>Beef breeds and beef crosses:</i>	
	Rising one-year heifers	357
	Rising two-year heifers	577
	Mixed-age cows	672
	Rising one-year steers and bulls	459
	Rising two-year steers and bulls	639
	Rising three-year and older steers and bulls	784
Breeding bulls	1,524	
Dairy cattle	<i>Friesian and related breeds:</i>	
	Rising one-year heifers	359
	Rising two-year heifers	678
	Mixed-age cows	835
	Rising one-year steers and bulls	337
	Rising two-year steers and bulls	538
	Rising three-year and older steers and bulls	701
	Breeding bulls	960
	<i>Jersey and other dairy cattle:</i>	
	Rising one-year heifers	305
	Rising two-year heifers	605
	Mixed-age cows	756
	Rising one-year steers and bulls	237
	Rising two-year and older steers and bulls	419
	Breeding bulls	721
Deer	<i>Red deer:</i>	
	Rising one-year hinds	116
	Rising two-year hinds	232
	Mixed-age hinds	281
	Rising one-year stags	142
	Rising two-year and older stags (non-breeding)	256
	Breeding stags	1,454
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising one-year hinds	133
	Rising two-year hinds	252
	Mixed-age hinds	302
	Rising one-year stags	162
	Rising two-year and older stags (non-breeding)	281
	Breeding stags	1,383
	<i>Other breeds:</i>	
Rising one-year hinds	51	

	Rising two-year hinds	78
	Mixed-age hinds	99
	Rising one-year stags	58
	Rising two-year and older stags (non-breeding)	92
	Breeding stags	315
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising one-year does	25
	Mixed-age does	35
	Rising one-year bucks (non-breeding)/wethers	27
	Bucks (non-breeding)/wethers over one year	28
	Breeding bucks	120
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising one-year does	35
	Mixed-age does	48
	Rising one-year bucks (non-breeding)/wethers	27
	Bucks (non-breeding)/wethers over one year	29
	Breeding bucks	98
	<i>Milking(dairy) goats:</i>	
	Rising one-year does	85
	Does over one year	170
	Breeding bucks	130
	Other dairy goats	25
Pigs	Breeding sows less than one year or age	188
	Breeding sows over one year of age	268
	Breeding boars	303
	Weaners less than 10 weeks of age (excluding sucklings)	55
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	93
	Growing pigs over 17 weeks of age (baconers)	153

## National Average Market Values

### 2002 Income Year

Source: Tax information Bulletin Vol, No.6 (June 2002)

Type of Livestock	Classes of Livestock	Average market Value per Head
		\$
Sheep	Ewe hoggets	71
	Ram and wether hoggets	65
	Two-tooth ewes	99
	Mixed-age ewes (rising three-year and four-year old ewes)	86
	Rising five-year and older ewes	70
	Mixed-age wethers	54
	Breeding rams	150
Beef cattle	<i>Beef breeds and beef crosses:</i>	
	Rising one-year heifers	472
	Rising two-year heifers	734
	Mixed-age cows	916
	Rising one-year steers and bulls	601
	Rising two-year steers and bulls	852
	Rising three-year and older steers and bulls	1,036
Breeding bulls	1,941	
Dairy cattle	<i>Friesian and related breeds:</i>	
	Rising one-year heifers	546
	Rising two-year heifers	1,077
	Mixed-age cows	1,225
	Rising one-year steers and bulls	462
	Rising two-year steers and bulls	752
	Rising three-year and older steers and bulls	928
	Breeding bulls	1,288
	<i>Jersey and other dairy cattle:</i>	
	Rising one-year heifers	513
	Rising two-year heifers	1,027
	Mixed-age cows	1,174
	Rising one-year steers and bulls	310
	Rising two-year and older steers and bulls	533
Breeding bulls	937	
Deer	<i>Red deer:</i>	
	Rising one-year hinds	219
	Rising two-year hinds	380
	Mixed-age hinds	433
	Rising one-year stags	241
	Rising two-year and older stags (non-breeding)	422
	Breeding stags	1,438
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising one-year hinds	241
	Rising two-year hinds	402
	Mixed-age hinds	455
Rising one-year stags	269	
Rising two-year and older stags (non-breeding)	447	
Breeding stags	1,570	

	<i>Other breeds:</i>	
	Rising one-year hinds	77
	Rising two-year hinds	127
	Mixed-age hinds	153
	Rising one-year stags	86
	Rising two-year and older stags (non-breeding)	155
	Breeding stags	362
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising one-year does	77
	Mixed-age does	80
	Rising one-year bucks (non-breeding)/wethers	33
	Bucks (non-breeding)/wethers over one year	36
	Breeding bucks	266
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising one-year does	55
	Mixed-age does	90
	Rising one-year bucks (non-breeding)/wethers	41
	Bucks (non-breeding)/wethers over one year	50
	Breeding bucks	212
	<i>Milking(dairy) goats:</i>	
	Rising one-year does	60
	Does over one year	129
	Breeding bucks	112
	Other dairy goats	25
Pigs	Breeding sows less than one year or age	275
	Breeding sows over one year of age	310
	Breeding boars	359
	Weaners less than 10 weeks of age (excluding sucklings)	57
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	107
	Growing pigs over 17 weeks of age (baconers)	177

## 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 Value 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
	<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 over 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	

	<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
	Deer	<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
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 over 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

	<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 \$ / 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:

<i>Red Deer to 1993 NAMV</i>	
	<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):

	<i>Write-up to 1993 NAMVs \$/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 bailer 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 illustrated, namely the income years ending 30 June 2003, 2002, and 2001.

##### *Livestock Data*

	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>
Ewe hoggets	925	930	925	930
2th ewes	750	760	765	755
3 and 4 year old ewes	1630	1605	1 600	1 560
5 years and older ewes	570	560	575	560
Rams	<u>75</u>	<u>75</u>	<u>72</u>	<u>75</u>
	<u>3950</u>	<u>3937</u>	<u>3 937</u>	<u>3 880</u>
Livestock sales	\$295 000	\$258 000	\$56 000	
No of lambs	2 700	2 605	2 600	
No of mixed-age ewes	1 200	1 215	1 200	
Livestock purchases	\$39 500	\$39 000	\$9 000	
No of mixed-age ewes	400	430	450	
No of rams	0	0	0	
Natural increase	3 700	3 650	3 600	
Deaths and missing	180	267	193	

## Herd Scheme

### 2003 Income Year

#### Opening tax values (opening stock @ ending NAMV)

			\$	\$
Ewe hoggets	930	x	62	57 660
2th ewes	760	x	87	66 120
3 and 4 year old ewes	1 605	x	78	125 190
5 year and older ewes	560	x	61	34 160
Rams	75	x	142	<u>10 650</u>
				<u>\$293 780</u>

#### Closing tax values (closing stock @ ending NAMV)

			\$	\$
Ewe hoggets	925	x	62	57 350
2th ewes	750	x	87	65 250
3 and 4 year old ewes	1 630	x	78	127 140
5 year and older ewes	570	x	61	34 770
Rams	75	x	142	<u>10 650</u>
				<u>\$295 160</u>

Taxable income due to changes in herd numbers = \$295 160 - \$293 780  
= \$1380

#### Check

Herd value 30 June 2003	\$295 160
Herd value 30 June 2002	<u>\$329 750</u>
Decrease	<u>\$ 34 590</u>
Decrease in capital value of herd (\$293 780 - \$329 750)	\$ 35 970
Increase due to changes in numbers	<u>\$ 1 380</u>
Decrease	<u>\$ 34 590</u>

#### Taxable Income from Sheep

Sales	\$295 000
Less Purchases	<u>39 500</u>
Cash Surplus	255 500
Plus Taxable increase in herd	<u>1 380</u>
Taxable income from sheep	<u>\$256 880</u>

**2002 Income Year**

**Opening tax values (opening stock @ ending NAMV)**

			\$	\$
Ewe hoggets	925	x	71	66 675
2th ewes	760	x	99	75 735
3 and 4 year old ewes	1500	x	86	137 600
5 year and older ewes	580	x	70	40 250
Rams	75	x	150	<u>10 800</u>
				<u>\$330 060</u>

**Closing tax values (closing stock @ ending NAMV)**

			\$	\$
Ewe hoggets	930	x	71	66 030
2th ewes	755	x	99	75 240
3 and 4 year old ewes	1560	x	86	138 030
5 year and older ewes	560	x	70	39 200
Rams	75	x	150	<u>11 250</u>
				<u>\$329 750</u>

Taxable income due to changes in herd numbers = \$329 750 - \$330 060  
= \$(310)

<b>Check</b>	
Herd value 30 June 2002	\$329 750
Herd value 30 June 2001	<u>\$256 453</u>
Increase	<u>\$ 73 297</u>
Increase in capital value of herd (\$330 060 - \$256 453)	\$ 73 607
Decrease due to changes in numbers	<u>\$ 310</u>
Increase	<u>\$ 73 297</u>

**Taxable Income from Sheep**

Sales	\$258 000
Less Purchases	<u>39 000</u>
Cash Surplus	219 000
Less Taxable decrease in herd	<u>310</u>
Taxable income from sheep	<u>\$218 690</u>

**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	<u>10 050</u>
			<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	<u>9 648</u>
			<u>\$256 453</u>

Taxable income due to changes in herd numbers = \$256 453 - \$253 080  
 = \$3 373

<b>Check</b>	
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>

## 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.

### 2003 Income Year

Livestock values for the 2003 tax year have been calculated as:

Ewe hoggets	\$21.50 per head
Mature sheep	\$43.91 per head

#### Opening tax value

Ewe hoggets	930 @	\$19.00	17 841	\$
Mature sheep	3000 @	\$36.17	<u>108 510</u>	
			<u>\$126 351</u>	

#### Closing tax value

Ewe hoggets	925 x	\$21.50	19 888	\$
Mature sheep	3025 x	\$43.91	<u>132 828</u>	
			<u>\$152 716</u>	

Increase in stock on hand = \$152 716 - \$126 351  
= \$26 365

#### Taxable income from sheep

Sales	\$295 900
Less Purchases	<u>39 500</u>
Cash surplus	255 500
Plus increase in stock on hand	<u>26 365</u>
Taxable income from sheep	<u>\$281 865</u>

**2002 Income Year**

Livestock values for the 2002 tax year have been calculated as:

Ewe hoggets            \$19.00 per head  
Mature sheep           \$36.17 per head

**Opening tax value**

			\$
Ewe hoggets	925 @	\$17.00	15 725
Mature sheep	3012 @	\$24.12	<u>72 649</u>
			<u>\$88 374</u>

**Closing tax value**

			\$
Ewe hoggets	930 x	\$19.00	17 841
Mature sheep	3000 x	\$36.17	<u>108 510</u>
			<u>\$126 351</u>

Increase in stock on hand = \$126 351 - \$88 374  
= \$37 977

**Taxable income from sheep**

Sales	\$258 000
Less Purchases	<u>39 000</u>
Cash surplus	219 000
Plus increase in stock on hand	<u>37 977</u>
Taxable income from sheep	<u>\$256 977</u>

## ***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>

Increase in stock on hand = \$88 374 - \$85 140  
= \$3 234

### **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>

### **14.15.7 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:

<b>Expenditure</b>	<b>Limit on Expenditure</b>
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	Levy from 1 April 2003	Levy from 1 April 2004
<b>110 Fruit, Vegetable, Grain, Plant &amp; Crop Growing</b>				
	01110	Plant Nurseries	1.25	1.37
	01120	Cut Flower and Flower Seed Growing	1.25	1.37
	01130	Vegetable Growing	1.25	1.37
	01140	Grape Growing	1.25	1.37
	01150	Apple and pear Growing	1.25	1.37
	01160	Stone Fruit Growing	1.25	1.37
	01170	Kiwi Fruit Growing	1.25	1.37
	01190	Fruit Growing (not elsewhere classified)	1.25	1.37
	01191	Citrus Growing	1.25	1.37
	01192	Berry Fruit Growing	1.25	1.37
	01210	Grain Growing	1.25	1.37
	01690	Crop and Plant Growing (not elsewhere classified)	1.25	1.37
	01691	Tobacco and Hops Growing	1.25	1.37
	01692	Cultivated mushroom growing	1.25	1.37
	03031	Forest Nursery – Operation or Service	1.25	1.37
<b>120 Livestock Farming, excluding Poultry</b>				
	01220	Grain-Sheep and Grain-Beef Cattle Farming	2.72	2.50
	01230	Sheep and Beef Cattle Farming	2.72	2.50
	01240	Sheep Farming	2.72	2.50
	01250	Beef Cattle Farming	2.72	2.50
	01300	Dairy Cattle Farming	2.72	2.50
	01510	Pig Farming	2.72	2.50
	01530	Deer Farming	2.72	2.50
	01590	Livestock Farming (not elsewhere classified)	2.72	2.50
	01593	Beekeeping	2.72	2.50
<b>122 Poultry Farming</b>				
	01410	Poultry Farming – Meat	1.25	1.66
	01420	Poultry Farming – Eggs	1.25	1.66
<b>130 Agriculture Services &amp; Aquaculture (medium risk group)</b>				
	02190	Services to Agriculture (not elsewhere classified)	2.54	2.45
	02192	Sphagnum Moss Processing	2.54	2.45
	03021	Forest Products – Gathering	2.54	2.45
	03032	Pest Control Service – Forestry (excluding aerial or wild animal control)	2.54	2.45
	04192	Seaweed, Shellfish, and other Seafood Handgathering (not from a boat)	2.54	2.45
	04200	Aquaculture	2.54	2.45
	45110	Wool Storage and Classing	2.54	2.45
	78650	Pest Control Services	2.54	2.45
<b>140 Agriculture Services, Hunting &amp; Trapping (high risk group)</b>				
	02130	Aerial Agricultural, Horticultural, Silvicultural, Farming and Pest Control Services	4.45	4.43
	02200	Hunting and Trapping	4.45	4.43
	03030	Services to Forestry (excluding tree cutting and felling)	4.45	4.43
<b>145 Shearing</b>				
	02120	Shearing Services	3.49	3.57
<b>130 Forestry (high risk group)</b>				
	03010	Forestry	6.42	6.17
	03020	Logging	6.42	6.17

<b>170 Ocean &amp; Coastal Fishing</b>				
	04110	Rock Lobster Fishing	3.98	3.98
	04120	Prawn Fishing	3.98	3.98
	04130	Fishing – Finfish Trawling (including processing on board)	3.98	3.98
	04140	Squid Jigging (including processing on board)	3.98	3.98
	04150	Line Fishing (including processing on board)	3.98	3.98
	04190	Marine Fishing (not elsewhere classified)	3.98	3.98
	04191	Shellfish and Paua Fishing (not from cultivated beds)	3.98	3.98
<b>210 Mining</b>				
	11010	Coal mining - opencast	2.86	2.58
	11011	Coal mining – underground	2.86	2.58
	13110	Iron sands mining	2.86	2.58
	13140	Gold mining – opencast	2.86	2.58
	13141	Gold mining – underground	2.86	2.58
	13150	Mineral sand mining	2.86	2.58
	13170	Silver ore mining	2.86	2.58
	13190	Metal ore mining (not elsewhere classified)	2.86	2.58
	14110	Gravel and sand quarrying	2.86	2.58
	14190	Construction material mining (not elsewhere classified)	2.86	2.58
	14200	Mining (not elsewhere classified)	2.86	2.58
	15130	Mineral exploration – own account	2.86	2.58
	15140	Mineral exploration services	2.86	2.58
	15200	Other mining services	2.86	2.58
<b>220 Meat Processing</b>				
	21110	Meat processing	3.99	5.13

**4.15.9 Accident Compensation Self-Employed Levy Rates 2003/2004**  
**Self Employed – Classification grouping and rates**

Group	PCU	Premium Classification Unit Description	Levy from 1 April 2003		Levy from 1 April 2004	
			Income Rate	Non-Income Rate	Income Rate	Non-Income Rate
<b>110 Fruit, Vegetable, Grain, Plant &amp; Crop Growing</b>						
110	01110	Plant Nurseries	0.89	1.48	0.68	1.08
110	01120	CutFlower and flower Seed Growing	0.89	1.48	0.68	1.08
110	01130	Vegetable Growing	0.89	1.48	0.68	1.08
110	01140	Grape Growing	0.89	1.48	0.68	1.08
110	01150	Apple and Pear Growing	0.89	1.48	0.68	1.08
110	01160	Stone Fruit Growing	0.89	1.48	0.68	1.08
110	01170	Kiwi fruit Growing	0.89	1.48	0.68	1.08
110	01190	Fruit Growing (not elsewhere classified)	0.89	1.48	0.68	1.08
110	01191	Citrus Growing	0.89	1.48	0.68	1.08
110	01192	Berry Fruit Growing	0.89	1.48	0.68	1.08
110	01210	Grain Growing	0.89	1.48	0.68	1.08
110	01690	Crop and Plant Growing (not elsewhere classified)	0.89	1.48	0.68	1.08
110	01691	Tobacco and Hops Growing	0.89	1.48	0.68	1.08
110	01692	Cultivated Mushroom Growing	0.89	1.48	0.68	1.08
110	03031	Forest Nursery – Operation or Service	0.89	1.48	0.68	1.08
<b>120 Livestock Farming, excluding Poultry</b>						
120	01220	Grain-Sheep and Grain-Beef Cattle Farming	1.40	2.33	1.37	2.72
120	01230	Sheep and Beef Cattle Farming	1.40	2.33	1.37	2.72
120	01240	Sheep Farming	1.40	2.33	1.37	2.72
120	01250	Beef Cattle Farming	1.40	2.33	1.37	2.72
120	01300	Dairy Cattle Farming	1.40	2.33	1.37	2.72
120	01510	Pig Farming	1.40	2.33	1.37	2.72
120	01530	Deer Farming	1.40	2.33	1.37	2.72
120	01590	Livestock Farming (not elsewhere classified)	1.40	2.33	1.37	2.72
120	01593	Beekeeping	1.40	2.33	1.37	2.72
<b>122 Poultry Farming</b>						
122	01410	Poultry Farming – Meat	0.92	1.54	0.87	1.44
122	01420	Poultry Farming – Eggs	0.92	1.54	0.87	1.44

Group	PCU	Premium Classification Unit Description	Levy from 1 April 2003		Levy from 1 April 2004	
			Income Rate	Non-Income Rate	Income Rate	Non-Income Rate
<b>130 Agriculture Services &amp; Aquaculture (medium risk group)</b>						
130	02190	Services to Agriculture (Not elsewhere classified)	1.80	3.02	1.30	2.40
130	02192	Sphagnum Moss Processing	1.80	3.02	1.30	2.40
130	03021	Forest Products – Gathering	1.80	3.02	1.30	2.40
130	03032	Pest Control Service – Forestry (excluding aerial or wild animal control)	1.80	3.02	1.30	2.40
130	04192	Seaweed, Shellfish, and Other Seafood Handgathering (not from a boat)	1.80	3.02	1.30	2.40
130	04200	Aquaculture	1.80	3.02	1.30	2.40
130	45110	Wool Storage and Classing	1.80	3.02	1.30	2.40
130	78650	Pest Control Services	1.80	3.02	1.30	2.40
<b>140 Agriculture Services, Hunting &amp; Trapping (high risk group)</b>						
140	02130	Aerial Agricultural, Horticultural, Silvicultural, Farming and Pest Control Services	2.75	4.90	3.62	5.71
140	02200	Hunting and Trapping	2.75	4.90	3.62	5.71
140	03030	Services to Forestry (excluding tree cutting and felling)	2.75	4.90	3.62	5.71
<b>Shearing</b>						
145	02120	Shearing Services	3.56	3.75	3.60	2.75
<b>150 Forestry (high risk group)</b>						
150	03010	Forestry	4.77	6.97	3.75	5.62
150	03020	Logging	4.77	6.97	3.75	5.62
<b>170 Ocean &amp; Coastal Fishing</b>						
170	04110	Rock Lobster Fishing	3.98	7.76	3.97	6.13
170	04120	Prawn Fishing	3.98	7.76	3.97	6.13
170	04130	Fishing – Finfish Trawling (including processing on board)	3.98	7.76	3.97	6.13
170	40140	Squid Jigging (including processing on board)	3.98	7.76	3.97	6.13
170	04150	Line Fishing (including processing on board)	3.98	7.76	3.97	6.13
170	04190	Marine Fishing (not elsewhere classified)	3.98	7.76	3.97	6.13
170	04191	Shellfish and Paua Fishing (not from cultivated beds)	3.98	7.76	3.97	6.13

<b>210 Mining</b>								
11010	Coal mining – opencast	2.01	3.31	1.49	2.73			
11011	Coal mining – underground	2.01	3.31	1.49	2.73			
13110	Iron sands mining	2.01	3.31	1.49	2.73			
13140	Gold mining – opencast	2.01	3.31	1.49	2.73			
13141	Mineral sand mining	2.01	3.31	1.49	2.73			
13170	Silver ore mining	2.01	3.31	1.49	2.73			
13190	Metal ore mining ( not elsewhere classified)	2.01	3.31	1.49	2.73			
14110	Gravel and sand quarrying	2.01	3.31	1.49	2.73			
14190	Construction material mining (not elsewhere classified)	2.01	3.31	1.49	2.73			
142000	Mining (not elsewhere classified)	2.01	3.31	1.49	2.73			
15130	Mineral exploration – own account	2.01	3.31	1.49	2.73			
15140	Mineral exploration services	2.01	3.31	1.49	2.73			
15200	Other mining services	2.01	3.31	1.49	2.73			
<b>220 Meat Processing</b>								
21110	Meat processing	2.64	2.70	2.74	3.37			
<b>230 Primary Product Processing &amp; Manufacturing</b>								
21130	Bacon, ham, and smallgoods manufacturing	0.98	1.56	1.00	1.61			
21210	Milk and cream processing	0.98	1.56	1.00	1.61			
21220	Ice Cream manufacturing	0.98	1.56	1.00	1.61			
21290	Dairy product manufacturing (not elsewhere classified)	0.98	1.56	1.00	1.61			
<b>234 Beverage Manufacturing</b>								
21810	Soft drink, cordial, and syrup manufacturing	0.56	0.88	0.39	0.64			
21820	Beer and malt manufacturing	0.56	0.88	0.39	0.64			
21830	Wine manufacturing	0.56	0.88	0.39	0.64			
21840	Spirit manufacturing	0.56	0.88	0.39	0.64			
21900	Tobacco product manufacturing	0.56	0.88	0.39	0.64			
<b>238 Food Manufacturing (medium risk group)</b>								
21114	Casings manufacturing	0.78	0.70	0.58	0.61			
21710	Sugar manufacturing	0.78	0.70	0.58	0.61			
21790	Food manufacturing (not elsewhere classified)	0.78	0.70	0.58	0.61			
21791	Salt manufacturing – cooking or table	0.78	0.70	0.58	0.61			
<b>240 Fruit, Vegetable and Oil Processing</b>								
21300	Fruit and vegetable processing	1.08	1.64	1.01	1.46			
21400	Oil and fat manufacturing	1.08	1.64	1.01	1.46			

<b>244 Bakery &amp; Confectionary Manufacturing, excluding Bread</b>						
21510	Flour mill product manufacturing	0.76	0.84	0.75	0.73	0.73
21520	Cereal food and baking mix manufacturing	0.76	0.84	0.75	0.73	0.73
21620	Cake and pastry manufacturing – non-retail	0.76	0.84	0.75	0.73	0.73
21720	Confectionery manufacturing	0.76	0.84	0.75	0.73	0.73
<b>246 Bread, Biscuit and animal Feeds Manufacturing</b>						
21610	Bread manufacturing	0.81	0.77	0.62	0.55	0.55
21630	Biscuit manufacturing	0.81	0.77	0.62	0.55	0.55
21740	Prepared animal and bird feed manufacturing	0.81	0.77	0.62	0.55	0.55
<b>254 Seafood and Poultry processing and Meat Inspection</b>						
21111	Meat inspection services	0.53	0.60	0.99	0.75	0.75
21120	Poultry processing	1.76	1.55	2.53	1.93	1.93
21730	Seafood processing (other than on board vessels)	1.76	1.55	2.53	1.93	1.93
<b>258 Fish and Meats Wholesale Trade</b>						
47110	Meat wholesaling	1.56	1.73	1.09	1.10	1.10
47120	Poultry and smallgoods wholesaling	1.56	1.73	1.09	1.10	1.10
47140	Fish wholesaling	1.56	1.73	1.09	1.10	1.10

#### 4.15.10 Accident Compensation Self-Employed Levy Rates 2002

##### Self Employed – Classified groupings 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 01/04/02	Income Premium from 1 April 2002	Non Income Premium from 1 April 2002	Estimated Average Rate from 01/04/02	Estimated Average Change
<b>110 Fruit, Vegetable, Grain, Plant &amp; Crop Growing</b>									
	01110	Plant Nurseries	0.70	0.95	1.32	0.90	1.55	1.84	39%
	01120	Cut Flower and Flower Seed Growing	0.70	0.95	1.38	0.89	1.53	1.92	39%
	01130	Vegetable Growing	0.70	0.95	1.31	0.89	1.53	1.83	40%
	01140	Grape Growing	0.70	0.95	1.21	0.90	1.54	1.70	40%
	01150	Apple and Pear Growing	0.70	0.95	1.38	0.88	1.52	1.92	39%
	01150	Stone Fruit Growing	0.70	0.95	1.40	0.91	1.57	1.95	39%
	01170	Kiwi Fruit Growing	0.70	0.95	1.10	0.90	1.55	1.53	39%
	01190	Fruit Growing (not elsewhere classified)	0.70	0.95	1.39	0.90	1.54	1.80	40%
	01191	Citrus Growing	0.70	0.95	1.37	0.90	1.55	1.90	39%
	01192	Berry Fruit Growing	0.70	0.95	1.46	0.91	1.56	2.03	39%
	01210	Grain Growing	0.70	0.95	1.18	0.90	1.55	1.65	40%
	01690	Crop and Plant Growing (not elsewhere classified)	0.70	0.95	1.28	0.90	1.55	1.78	39%
	01691	Tobacco and Hops Growing	0.70	0.95	1.08	0.90	1.4	1.51	40%
	01692	Cultivated Mushroom Growing	0.70	0.95	1.13	0.89	1.53	1.58	40%
	03031	Forest Nursery – Operation or Service	0.70	0.95	1.24	0.91	1.57	1.74	40%
<b>120 Livestock Farming, excluding Poultry</b>									
	01220	Grain-Sheep and Grain-Beef Cattle Farming	0.78	1.11	1.36	0.94	1.87	1.90	40%
	01230	Sheep and Beef Cattle Farming	0.78	1.11	1.38	0.94	1.87	1.93	40%
	01240	Sheep Farming	0.78	1.11	1.43	0.94	1.87	1.99	39%
	01250	Beef Cattle Farming	0.78	1.11	1.55	0.94	1.87	2.16	39%
	01300	Dairy Cattle Farming	0.78	1.11	1.28	0.95	1.89	1.80	41%
	01510	Pig Farming	0.78	1.11	1.36	0.95	1.88	1.90	40%
	01530	Deer Farming	0.78	1.11	1.46	0.94	1.87	2.04	40%
	01590	Livestock (not elsewhere classified)	0.78	1.11	1.45	0.94	1.87	2.02	39%
	01593	Beekeeping	0.78	1.11	1.38	0.95	1.90	1.93	40%
<b>122 Poultry Farming</b>									
	01410	Poultry Farming – Meat	0.74	0.95	1.20	0.80	1.37	1.45	21%
	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 2002	Income Premium from 1 April 2002	Non Income Premium from 1 April 2002	Estimated Average Rate from 1 April 2002	Estimated Average Change
<b>130 Agriculture Services &amp; Aquaculture (medium risk group)</b>									
	02190	Services to Agriculture (Not elsewhere classified)	1.24	1.61	2.21	1.65	2.42	3.07	39%
	02192	Sphagnum Moss Processing	1.24	1.61	2.49	1.65	2.43	3.36	35%
	03021	Forest Products – Gathering	1.24	1.61	2.65	1.65	2.43	3.63	37%
	03032	Pest Control Service – Forestry (excluding aerial or wild animal control)	1.24	1.61	2.19	1.65	2.41	3.04	39%
	04192	Seaweed, Shellfish, and other Seafood Handgathering (not from a boat)	1.24	1.61	2.06	1.65	2.43	2.84	38%
	04200	Aquaculture	1.24	1.61	2.20	1.65	2.42	3.05	39%
	45110	Wool Storage and Classing	1.24	1.61	2.40	1.65	2.42	3.33	39%
	78650	Pest Control Services	1.24	1.61	2.25	1.65	2.42	3.12	39%
<b>140 Agriculture Services, Hunting &amp; Trapping (high risk group)</b>									
	02130	Aerial Agricultural, Horticultural, Silvicultural, Farming and Pest control services	2.69	3.26	4.12	2.62	4.67	4.65	13%
	02200	Hunting and Trapping	2.71	2.50	4.40	2.62	4.67	5.60	27%
	03030	Services to Forestry (excluding tree cutting and felling)	2.70	2.59	4.24	2.62	4.67	5.36	26%
<b>Shearing</b>									
	02120	Shearing Services	2.51	2.35	3.86	2.78	3.28	4.61	19%
<b>150 Forestry (high risk group)</b>									
	03010	Forestry	4.39	3.66	6.51	4.96	6.08	8.43	29%
	03020	Logging	4.39	3.66	6.37	4.96	6.08	8.22	29%

<b>170 Ocean &amp; Coastal Fishing</b>									
	04110	Rock Lobster Fishing	3.85	3.55	5.20	4.16	8.25	7.29	40%
	04120	Prawn Fishing	3.85	3.55	4.94	4.31	8.55	6.91	40%
	04130	Fishing – Finfish Trawling (including processing on board)	3.85	3.55	5.35	4.09	8.11	7.48	40%
	40140	Squid Jigging (including processing on board)	3.85	3.55	6.42	3.70	7.45	8.99	40%
	04150	Line Fishing (including processing on board)	3.85	3.55	5.49	4.03	7.99	7.69	40%
	04190	Marine Fishing (not elsewhere classified)	3.85	3.55	6.08	3.81	7.56	8.50	40%
	04191	Shellfish and Paua Fishing (not from cultivated beds)	3.85	3.55	5.36	4.08	8.09	7.50	40%

<b>682 Equestrian Activities</b>									
<b>Risk Group</b>	<b>PCU</b>	<b>Premium Classification Unit Description</b>	<b>Income Premium from 1 April 2001</b>	<b>Non Income Premium from 1 April 2001</b>	<b>Estimated Average Rate from 1 April 2002</b>	<b>Income Premium from 1 April 2002</b>	<b>Non Income Premium from 1 April 2002</b>	<b>Estimated Average Rate from 1 April 2002</b>	<b>Estimated Average Change</b>
	01520	Horse Farming	3.30	2.66	4.98	4.32	4.25	6.98	40%
	93110	Horse Racing (not elsewhere classified)	3.30	2.66	5.15	4.30	4.23	7.19	40%
	93113	Horse Racing – Harness Racing	3.30	2.66	5.46	4.39	4.31	7.65	40%
	93196	Sports and Services to Sports – Horse Riding	1.87	1.53	2.94	2.48	2.43	4.12	40%

#### 4.15.11 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 to *Section 4.8.4.*

<b>Industry Categories</b>	<b>Estimated Useful Life (Years)</b>	<b>DV Depn Rate (%)</b>	<b>SL Equiv Depn Rate (%)</b>
<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
Hi-trim shelter trimmer (including sub-frame)	10	18	12.5
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
Lawnmowers (domestic type used by lawnmowing contractors)	2	63.5	63.5
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
Spreaders (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
Woven reflective mulch	3	50	40
<i>Dairy Plant</i>			
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
Inflatable pipeline plug	3	50	40
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
Pipeline crawler	5	33	24
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
Inflatable pipeline plug	3	50	40
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
<i>Buildings and Structures</i>			
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
Carparks (building and pads)	50	4	3
Chemical works	33.3	6	4
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
Grandstands	50	4	3
Hardstandings	50	4	3
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
Signs (road)	6.66	26	18
Signs (street nameplates)	6.66	26	18
Stopbanks (of earth construction)	50	4	3
Swimming pools (in-ground)	33.3	6	4
Tanneries	33.3	6	4
Taxiways (airports)	50	4	3
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
Valve chambers and similar	50	4	3
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 (mechanically propelled, Fixed wing, of an unladen weight Exceeding 15,000kg, other than helicopters) (residual value has been estimated at 25%)	15	9.5	6.5
Aeroplanes (mechanically propelled, Fixed wing, of an unladen weight not Exceeding 15,000kg, other than helicopters) (residual value has been estimated at 25%)	15	9.5	6.5
Aeroplanes (top dressing and spraying) and specialised attachments	10	18	12.5
Airport runways	33.3	6	4
Airships	12.5	15	10
Ambulances	12.5	15	10
Animal-drawn vehicles	20	9.5	6.5
Baggage conveyor systems	15.5	12	8
Baggage imaging machines	8	22	15.5
Balloons	12.5	15	10
Barges	20	9.5	6.5
Barriers (electrically operated)	10	18	12.5
Bicycles (pedal)	5	33	24
Boat lift storage system (inflatable)	8	22	15.5
Bulkheads (insulated, removable)	4	40	30
Buoys	20	9.5	6.5
Buses (for transporting people, over 12 seats)	12.5	15	10
Cablecars	20	9.5	6.5
Campervans	10	18	12.5
Canoes	10	18	12.5
Caravans	12.5	15	10
Chairlifts	20	9.5	6.5
Coaches (for transporting people, over 12 seats)	12.5	15	10
Concrete trucks	12.5	15	10
Containers Insulated, below 8 m <sup>3</sup>	5	33	24
Containers (shipping)	20	9.5	6.5
Cranes	see asset category: "Lifting"		
Dirigibles	12.5	15	10
Dredges	20	9.5	6.5
Drilling platforms	20	9.5	6.5
Dump trucks	15.5	12	8
Ferries	20	9.5	6.5
Fire boats	25	7.5	5.5
Fire engines	20	9.5	6.5
Floating docks	25	7.5	5.5

Forklift trucks (8 tonnes and over)	12.5	15	10
Forklift trucks (8 tonnes and over used for short-term hire)	8	22	15.5
Forklift trucks (under 8 tonnes used for short-term hire)	6.66	26	18
Forklift trucks (under 8 tonnes)	10	18	12.5
Freight cars (rail)	25	7.5	5.5
Freight cars (tramway)	25	7.5	5.5
Funicular railways	20	9.5	6.5
Gliders	12.5	15	10
Gondolas and the like	20	9.5	6.5
Gyrocopters	3	50	40
Hang gliders	3	50	40
Helicopters	20	9.5	6.5
Horse floats	20	9.5	6.5
Hovercraft	12.5	15	10
Inflatable boats	8	22	15.5
Inflatable rafts	8	22	15.5
Jetboats	10	18	12.5
Jetskis	5	33	24
Lifeboats (excluding inflatable)	15.5	12	8
Lifejackets and the like	4	40	30
Locomotives (diesel)	25	7.5	5.5
Locomotives (electric)	25	7.5	5.5
Locomotives (steam)	25	7.5	5.5
Maintenance cars (rail)	25	7.5	5.5
Maintenance cars (tramway)	25	7.5	5.5
Metal detectors	8	22	15.5
Metal speed humps	5	33	24
Microlites	3	50	40
Military type vehicles	15.5	12	8
Minibuses (up to and including 12 seats)	5	26	18
Mopeds	6.66	26	18
Motor launches	20	9.5	6.5
Motor scooters	6.66	26	18
Motor vehicles, (for transporting people, up to and including 12 seats)	5	26	18
Motor vehicles (for transporting people, up to and including 12 seats and used for short-term hire)	4	40	30
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 NA (for transporting light goods, that have a gross vehicle mass not exceeding 3.5 tonnes and used for short-term hire)	6.6	26	18
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 NB (for transporting medium goods, that have a gross vehicle mass exceeding 3.5 tonnes but not exceeding 12 tonnes and used for short-term hire)	8	22	15.5
Motor vehicles, class NC (for transporting heavy goods, that have a gross vehicle mass exceeding 12 tonnes)	10	18	12.5
Motor vehicles – class NC (for transporting heavy goods, that have a gross vehicle mass exceeding 12 tonnes and used for short-term hire)	6.6	26	18
Motorcycles	6.66	26	18
Pallet covers (insulated)	2	63.5	63.5
Parachutes	3	50	40
Pleasure vessels	15.5	12	8
Radar navigational signalling equipment	10	18	12.5
Radar navigational traffic control equipment	10	18	12.5
Railway jiggers	20	9.5	6.5
Road signs	6.66	26	18
Roll-on/roll-off vessels	20	9.5	6.5
Roof racks	5	33	24
Rowing boats	15.5	12	8
Rubbish trucks	12.5	15	10
Ship loading and unloading equipment (not elsewhere specified)	15.5	12	8
Ships (bulk carrier)	20	9.5	6.5
Ships (cargo)	25	7.5	5.5
Ships (container)	20	9.5	6.5
Ships (cruise)	25	7.5	5.5
Ships (livestock)	20	9.5	6.5
Ships (refrigerated)	20	9.5	6.5
Ships (tanker)	20	9.5	6.5
Sidecars	6.66	26	18
Signs (street nameplates)	6.66	26	18
Small boats	15.5	12	18
Special Purpose Vehicles	12.5	15	10
Taxis (up to and including 12 seats) (residual value has been estimated at 25%)	5	26	18
Towing tractors	15.5	12	8
Tracklayers	15.5	12	8
Tracks (monorail)	25	7.5	5.5

Tracks (rail)	25	7.5	5.5
Traction batteries	5	33	24
Traction engines	25	7.5	5.5
Tractors (farm type)	15.5	12	8
Trailers – 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
Trailers – classes TA and TB (for transporting very light and light goods, that have a gross vehicle mass not exceeding 3.5 tonnes and used for short-term hire) excluding domestic type trailers	10	18	12.5
Trailers – 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
Trailers - class TC (for transporting medium goods, that have a gross vehicle mass exceeding 3.5 tonnes but not exceeding 10 tones and used for short-term hire)	12.5	15	10
Trailers – class TD (for transporting heavy goods, that have a gross vehicle mass exceeding 10 tonnes)	15.5	12	8
Trailers – class TD (for transporting heavy goods, that have a gross vehicle mass exceeding 10 tonnes and used for short-term hire)	10	18	12.5
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, 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
Tram tracks	20	9.5	6.5
Tram wires	20	9.5	6.5
Tricycles (pedal)	5	33	24
Trolley bus wires	20	9.5	6.5
Trolley buses	15.5	12	8
Tugs	25	7.5	5.5
Tyre Chains	3	50	40
Vehicles (road going) (not elsewhere specified)	15.5	12	8
Windsurfers	3	50	40
Yachts (international ocean-going)	3	50	40
Yachts (other than international ocean-going)	15.5	12	8

#### 4.15.12 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+
<b>Agricultural plant and equipment:</b>				
Tractor drawn implements	<b>10</b>	12.5	7	8.5
Self propelled equipment	<b>20</b>	25	13.5	17.5
<b>Aircraft:</b>				
Fixed wing agricultural aerial work aircraft, including wing attachments for spraying, dusting and distributing seed:	<b>33</b>	41.4	24	31
Helicopters from and including year ended 31 March 1969				
- Airframe, engine, rotor system	<b>25</b>	31.3	17.5	22
- Spraying tanks and attached spraying mechanism	<b>33.3</b>	41.7	24	32
<b>Barns:</b>				
Simple loafing barns	15		<b>10</b>	
Wintering barns all types of construction	15		<b>10</b>	
Beehives	*			
Boats - see Vessels				
Boilers	<b>10</b>	12.5	7	8.5
Bores and wells	*			
<b>Bridges:</b>				
Wooden	3	4	<b>2.5</b>	3.1
Others	2.5	3	<b>2</b>	2.5
<b>Buildings:</b>				
Reinforced concrete, steel or reinforced concrete framed with brick walls or permanent materials.	1		<b>1</b>	
Brick, stone or concrete walled without steel or reinforced concrete frame, stucco, steeltex or other similar construction with wooden frame.	2.5		<b>2</b>	
Wooden framed - not specified elsewhere.	3		<b>2.5</b>	
Affected by acid fumes - vinegar manufacturers, fertiliser works, bulk fertiliser stores, chemical works, tanneries.	6		<b>4</b>	
Portable huts	<b>10</b>		7	

‘Temporary Buildings’	<b>10</b>		7	
Bulk lime spreaders	<b>10</b>	12.5	7	8.5
Bulldozers:				
General	<b>20</b>	25	13.5	17.5
Earthmoving contractors	<b>25</b>	31.3	17.5	22
Cars and Trucks:				
Rental	<b>25</b>	31.2	17.5	22
Other	<b>20</b>	25	13.5	17.5
Chainsaws	<b>50</b>	62.5	40	51
Cloches	*			
Compressors:				
Portable	<b>15</b>	18.8	10	13
Fixed	<b>10</b>	12.5	7	8.5
Computers	<b>20</b>	25	13.5	17.5
Concrete mixers	<b>15</b>	18.8	10	13
Effluent Disposal units on farms or Development expenditure	<b>10</b>	12.5	7	8.5
Electric test equipment	<b>20</b>	25	13.5	17.5
Electronic scales	<b>20</b>	25	13.5	17.5
Ensilage pits - concrete walls with sliding roof	<b>10</b>	12.5	7	8.5
Feeding out units for cattle - all types of construction	6	7	<b>4</b>	5
Fences:				
Electric	<b>10</b>	12.5	7	8.5
Others		Maintenance		
Fire fighting plant and equipment:				
Reservoir	1	2	<b>1</b>	1.3
Ring main and hydrants	1	2	<b>1</b>	1.3
Breathing apparatus, hoses, pipelines, pumps and diesel engines	<b>10</b>	12.5	7	8.5
Axes, ladders, blankets and fire extinguishers costing less than \$100 each	*			
Fish processing buildings	6		<b>4</b>	
Fish processing plant	<b>15</b>	18.8	10	13
Fishing boats and gear - see Vessels				
Fork lifts	<b>20</b>	25	13.5	17.5
Freezers and cookers for preparation and storage of dog meat	<b>10</b>	12.5	7	8.5
Fowl houses - see poultry				
Frost protection plant - pumping unit, sprinklers, standards and pipelines	<b>10</b>	12.5	7	8.5
		or partly claim as Development exp.		
Fuel tanks:				
Underground		rate as for buildings		
Gas cylinder containers	<b>S.V.</b>			
Gas water heaters	<b>10</b>	12.5	7	8.5
Glasshouses:				
Wooden framed	7		<b>5</b>	
Metal framed	4		<b>3</b>	

PVC tunnel houses	11		7.5	
Grain drying and storage bins	<b>5</b>	6.3	3.5	4
Grain drying plant	<b>10</b>	12.5	7	8.5
Grain - portable silos - see silos				
Hay balers	<b>20</b>	25	13.5	17.5
Header harvesters	<b>20</b>	25	13.5	17.5
Heating systems	<b>10</b>	12.5	7	8.5
Helicopters - see aircraft				
Hop frames	*			
Hop kilns	<b>15</b>	18.8	10	13
Incinerators	<b>15</b>	18.8	10	13
Land Improvements - see <i>Section 4.15.3.</i>				
Lawnmowers:				
Motor driven	<b>20</b>	25	13.5	17.5
Others	<b>10</b>	12.5	7	8.5
Lime spreaders bulk	<b>10</b>	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		<b>4</b>	
Built after 1 April 1966	15		<b>10</b>	
Cost of converting to herringbone design after 1 April 1966 -	15		<b>10</b>	
Rotary Herringbone	<b>10</b>	12.5	7	8.5
Motor vehicles, trucks and scooters	<b>20</b>	25	13.5	17.5
Office equipment and machines	<b>20</b>	25	13.5	17.5
Pallets	*			
Pig houses - all types	15		<b>10</b>	
Pipelines		maintenance		
Plant and machinery - except as elsewhere specified:				
General including agricultural plant and implements but not motor vehicles	<b>10</b>	12.5	7	8.5
Plastic pots for tomato growing	<b>S.V.</b>			
Poultry:				
Battery type cages	<b>10</b>	12.5	7	8.5
Colony houses with wooden frames, iron roofs and netting sides and bases	<b>10</b>	12.5	7	8.5
Fowl houses-steel framed	3		<b>2.5</b>	
-wooden framed	7		<b>5</b>	
Saddlery and harnesses	*			
Saleyards:				
Constructed after 1 April 1971	2.5	3	<b>2</b>	2.5
Constructed prior to April 1971 - less than 40 years old.		Spread over remaining years (assumed life of 50 years)		
- 40 years or more		15	<b>10</b>	

Additions:				
- if part of an existing yard		Spread over remaining life		
- if virtually a new yard	2.5	3	2	2.5
Saws - chain	50	62.5	40	51
Sawmillers- diesel or petrol tractors, locomotives and power units used for log hauling	20	25	13.5	17.5
Scales and weighing machines				
- mechanical	10	12.5	7	8.5
- electronic	20	25	13.5	17.5
Septic tanks and sewerage systems				As for buildings
Sheep and cattle yards:				
Uncovered yards				See saleyards
Roofed yards				Appropriate building rate
Gratings - fixed				Appropriate building rate
- loose				*
Sheep crates	15	18.8	10	13
Sheep and cattle dips:				
Shower type				
- tanks and pipes	10	12.5	7	8.5
- dip or shower (including pumps)	10	12.5	7	8.5
- electric motor and fitting	10	12.5	7	8.5
Spray type				
- Shed				Appropriate Building rate
- Base (race, floor of dip, two draining pens and sump)				Dev.expenditure
- tanks and pipes, dip including pumps, electric motor and fittings	10	12.5	7	8.5
Silage storage bunkers				Development expenditure and maintenance
Silos - Grain:				
- with built in drying and loading/unloading machinery	10	12.5	7	8.5
- With separate drying, loading/unloading machinery	5	6.3	3.5	4
- if erected on farms	10	12.5	7	8.5
- portable				Cost of replacement or scrapping if abandoned
Slaughterhouse on farms:				
Concrete	7		5	
Timber and concrete	8		6	
Timber	15		10	
Spray plant - orchardists:				
Self propelled and air blast units	20	25	13.5	17.5
Others	10	12.5	7	8.5
Stock food manufacturing plant	15	18.8	10	13
Storage tanks - underground				Appropriate building rate
Tarpaulins				*
Threshing plant	20	25	13.5	17.5

Tomatoes:				
Plastic pots for growing	<b>S.V.</b>			
Structure for shading	2.5	3	<b>2</b>	2.5
Tools	See <i>Section 4.8.4</i>			
Traction engines	<b>10</b>	12.5	7	8.5
Tractors	<b>20</b>	25	13.5	17.5
Trailers	Rate applicable to vehicle by which drawn			
Trickle irrigation equipment in glasshouses	<b>25</b>	31.3	17.5	22
Trucks - see motor trucks				
Tunnel houses P.V.C.	11		<b>7.5</b>	
Underground silage pits - concrete walled with sliding roof	<b>10</b>	12.5	7	8.5
Vessels (Registered for fishing):				
- Hulls including fixed gear and refrigeration rooms	<b>10</b>	12.5	7	8.5
- Deck machinery, winches, and motors	<b>15</b>	18.8	10	13
- Main engines	<b>20</b>	25	13.5	7.5
Wagons, carts and drays	<b>10</b>	12.5	7	8.5
Water towers	Appropriate building rate			
Weighing machines and scales	<b>10</b>	12.5	7	8.5
Wells and water bores *				
Windmills	<b>10</b>	12.5	7	8.5
Wine making industry:				
Tanks and vats				
- stainless steel	<b>10</b>	12.5	7	8.5
- Wooden	<b>10</b>	12.5	7	8.5
- Concrete:				
for fermentation.	<b>10</b>	12.5	7	8.5
for storage	<b>6</b>	7	4	5
Casks and barrels				
- both circulating or storage	<b>S.V.</b>			
Wintering barns - all types of construction	<b>15</b>	18	10	12.5
Wire ropes	*			

## **SECTION 5**

### **GIFT DUTY**

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**Note:** Before reading this section, please refer to the disclaimer in the Preface of this Manual.

## **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:

<b>Description of Gift</b>	<b>When Complete</b>
Cash	On delivery to the beneficiary.
Cheques	When the cheque has been cashed. (Until then it can be revoked.)
Land on which:	Except where a valid trust is created, the earlier of the dates (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.

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

<b>Value of dutiable gifts made within 12 months</b>	<b>Amount and Rate of Duty</b>	
\$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**

<b>Years of Age</b>	<b>Expectation of life of male</b>	<b>Present value of \$1 payable for life</b>	<b>Present value of \$1 p.a. on death</b>	<b>Present value of income on capital of \$1</b>
	<b>Years</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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

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### 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**

<b>Years of Age</b>	<b>Expectation of life of female</b>	<b>Present value of \$1 payable for life</b>	<b>Present value of \$1 p.a. on death</b>	<b>Present value of income on capital of \$1</b>
	<b>Years</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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

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### 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**

<b>Years of Age</b>	<b>Expectation of widowhood</b>	<b>Present value of \$1 p.a. for widowhood</b>	<b>Present value of \$1 payable on termination of widowhood</b>	<b>Present value of income on capital of \$1 for widowhood</b>
<b>Years</b>	<b>Years</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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

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## **SECTION 6**

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