

FINANCIAL BUDGET MANUAL

1996



Department of Farm
and Horticultural
Management

LINCOLN
UNIVERSITY
Te Whare Wānanga O Aoraki



FINANCIAL BUDGET MANUAL 1996

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PREFACE

The "Financial Budget Manual 1996" 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.

Unless stated otherwise, the data contained in the Manual is that ruling in January 1996. All prices are quoted exclusive of GST. Prices do not remain stationary so the Manual should be used as a guide only. Market movements and exchange rate changes are just two of the factors which can rapidly alter costs and prices. The availability of discounts for bulk purchases, and deferred payment arrangements, may also affect final costs for budgeting purposes.

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

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

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

I would like to thank all individuals, organisations and commercial firms who have provided information for our use. Without their co-operation, the production of the Financial Manual is not feasible. I wish to express my appreciation to Kathryn Goodwin, Susan Falconer and Sheryl Frew for their efforts in gathering and collating information.

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

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

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

For readers' information, Lincoln's Department of Farm and Horticultural Management 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. The 1996 edition of this handy book is due out soon.

Elizabeth S. Burt
EDITOR

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SECTION 1

PRODUCT PRICES

1.1 MARKET PRICES

1.1.1 Impact of Exchange Rate on Product Prices

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

The following table shows the estimated movement in farmgate prices for a 10% movement in trade weighted exchange rates for lamb, mutton, beef and wool. 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. Wool, where the proportion of the value added between farm and ship is low relative to other pastoral products, shows 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)*

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

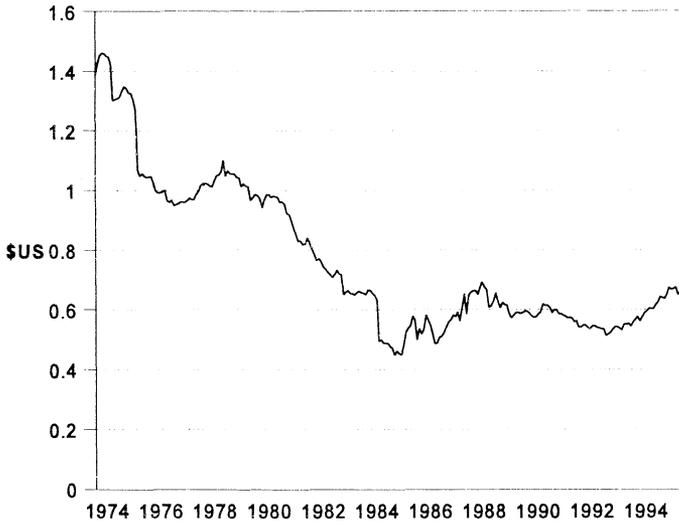
	Appreciation	Depreciation
Lamb	-19%	+23%
Mutton	-22%	+27%
Beef	-14%	+18%
Wool	-12%	+15%

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

Source: N.Z. Meat and Wool Boards' Economic Service.

1.1.2 Exchange Rate 1974 to 1995

Exchange Rates: \$US to \$NZ (1974 to 1995)



Exchange Rates: Major Currencies and TWI to \$NZ (Annual Averages)

Year Ended March

	1992	1993	1994	1995	1996F
1 NZ\$ =					
US\$.53	.55	.61	.63
£ stg	.33	.31	.37	.39	.40
Yen	75	66	59	61.0	62.5
A\$.73	.74	.81	.82	.83
DM	.95	.82	.93	.96	.98
TWI *	56.5	53.5	55.6	58.0	59.2

* Reserve Bank Trade Weighted Index (a measure of the value of the NZ\$ against a weighting of the five most important currencies involved with New Zealand's exports and imports).

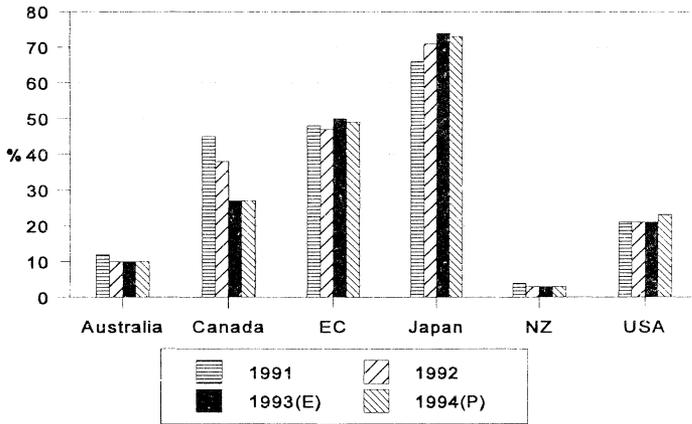
F = forecast

Source: *Situation and Outlook for NZ Agriculture, MAF Policy, June 1995*

1.1.3 Government Support to Farmers

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

Producer Subsidy Equivalents (PSEs) All Products



Source: OECD, MAF.

1.2 SHEEP

1.2.1 Lamb Schedule (Export)

Meat which is destined for export is graded by the New Zealand Meat Producers Board. The various grades are paid for according to Works' schedules which are set every week during the killing season.

Below is an example of net prices offered for export lambs for the week beginning January 11, 1996. This type of information is usually available each week in various newspapers and farming journals.

Weight	Grade	Waitotara	North Is Av.	South Is Av.
		<i>(Wanganui)</i>		<i>(PPCS/Alliance)</i>
		\$	\$	\$
9.0	A	16.91	12.36	20.95
11.0	PL	18.21	20.16	23.09
13.0	YL	21.97	23.77	27.65
13.0	PL	21.97	23.77	27.65
13.5	YM	30.54	30.51	32.91
13.5	PM	30.14	30.31	32.44
14.0	YM	31.45	31.47	33.87
14.0	PM	31.03	31.26	33.38
15.0	YM	35.66	34.59	36.90
15.0	PM	35.36	34.44	36.38
15.0	TM	28.16	28.97	27.23
15.0	FM	17.06	18.59	18.98
15.0	CM	23.06	20.09	21.98
16.0	YM	37.63	36.59	38.65
16.0	PM	37.31	36.43	38.09
17.0	YM	39.60	38.59	40.62
17.0	PM	39.26	38.42	40.02
18.0	YX	41.93	40.60	42.26
18.0	PX	41.93	40.68	41.36
19.0	YX	44.11	42.78	44.17
19.0	PX	44.11	42.78	43.22
19.0	TH	37.46	37.18	33.34
19.0	FH	24.16	25.38	22.89
21.0	YX	48.11	46.80	40.01
21.0	PX	48.11	46.80	39.48
22.0	YX	49.89	48.70	40.99
22.0	PH	50.55	48.59	38.46
23.0	YX	51.88	50.71	42.49
23.0	PH	52.57	50.59	39.85
25.0	YX	55.86	54.72	45.50
25.0	PH	56.61	54.59	42.63

Weight	Grade	Waitotara	North Is Av.	South Is Av.
		(Wanganui)		(PPCS/Alliance)
		\$	\$	\$
25.0	TH	47.36	47.59	41.38
25.0	FH	29.89	33.09	27.63
27.0	YX	59.84	58.73	48.51
27.0	PH	60.65	58.59	45.41
Pelt 1.0kg woolly		8.68	8.60	8.83

- Note:** 1. The net lamb values shown above in dollars 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.
2. The value of the wool pull/pelt is included and is shown for each company.

Source: "N Z Farmer" January 11 1996

1.2.2 Lamb Price Trends

(i) Average prices paid for 14.5 kg PM lamb; and lamb "all grades average":

	1990/91	1991/92	1992/93	1993/94	1994/95
	(P)	(E)			
14.5 kg lamb (\$/hd)	\$28.06	\$29.19	\$41.08	\$41.32	\$34.59
This price comprises:					
Baremeat schedule (c/kg)	164.33c	160.42c	229.70c	225.00c	176.30c
Pelt and wool (\$/hd)	\$4.11	\$5.68	\$7.01	\$6.79	\$7.65
Lamb "all grades average"	\$26.04	\$27.97	\$40.16	\$39.97	\$32.16

Figures may not add due to rounding

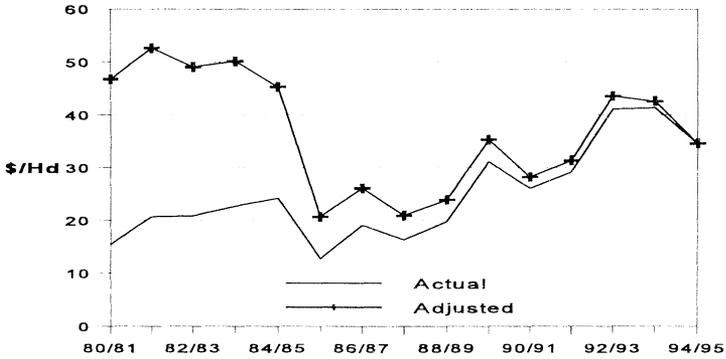
P = Provisional

E = Estimate (as at June 1995)

Prices are at works, for year ended 30 September.

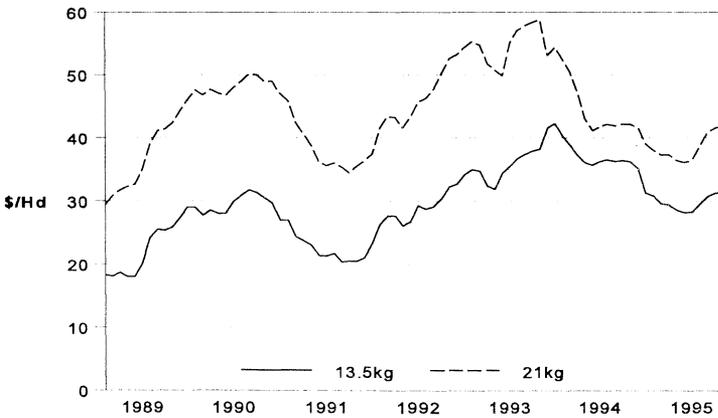
Source: M.A.F., Dept of Statistics, N.Z. Meat Producer's Board, N.Z. Meat and Wool Boards' Economic Service.

(ii) Actual and Inflation Adjusted Lamb Prices, 1980 to 1995.
 (PM Lamb Price - September year)



Source: N.Z.Meat and Wool Boards' Economic Service.

(iii) Average Net Export Price Paid for Lambs Weighing 13.5 kg and 21 kg with a 1kg Woolly Pelt (January 1988 to October 1995)



Source: "N.Z Farmer" Issues January 1988 to January 1996

(iv) Prime Lamb/Hogget Prices - Local Trade

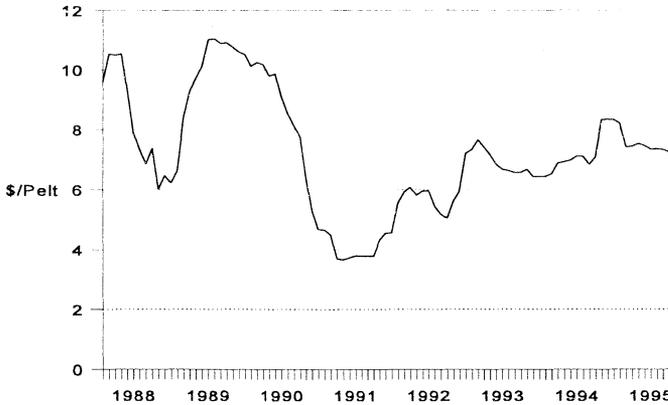
(See Section 1.2.10)

(v) Store Lamb Prices

(See Section 1.2.11)

1.2.3 Lamb Skin Price Trends 1988 to 1995

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



Source: N.Z. Meat and Wool Boards' Economic Service

1.2.4 Contract Lamb Prices

(i) Annual Contracts

The *AFFCO* 'LAMBPLAN' is a year round supply programme designed to reward farmers for producing lambs which meet northern hemisphere market specifications. Farmers that commit to the LAMBPLAN agreement receive the following rewards

- 100% of the LAMBPLAN monthly operating price paid 14 days after slaughter
- final return calculated in cents per kilo according to grade and paid eight weeks from the end of month of slaughter
- out-of-season grazing payments during periods of difficult supply
- optional advance payment
- LAMBPLAN renewal incentive of 65 cents paid at time of slaughter for each qualifying lamb supplied under the previous season's LAMBPLAN Supply Agreement
- freight paid by *AFFCO*

To qualify the farmer must commit a minimum of 100 lambs to a LAMBPLAN Supply Agreement by no later than 31 December and lambs must be supplied in two separate months.

(ii) Winter Heavy Lamb Contracts

Contracts for the 1995 winter spring varied between companies and regions.

An example is included as a guide only.

Richmond offered European chilled lamb contracts during the winter of 1995. Producers had the opportunity to supply lambs which met the requirements of *Richmond's* chilled markets and were paid accordingly. A minimum of 100 lambs had to be supplied and the producer had to name the supply week(s). The supply period was between 3 July and 6 October 1995, and there was a minimum weight of 13.3kg. A premium was also offered for lambs supplied during this period.

Week	Bonus Premium (c/kg CW)	15kg carcass weight lamb
1	5	\$0.75
2	10	\$1.50
3	15	\$2.25
4	20	\$3.00
5	25	\$3.75
6	30	\$4.50
7	40	\$6.00

(iii) Chilled Lambs for the European Christmas Market

Companies were offering contracts for the October/November period in 1995 to supply this market.

The *Richmond* "New Season Chilled Lamb Contract" offered suppliers 20% above schedule price for each weight and grade within the criteria, plus a bonus premium for early season supply (depending on date of supply). Carcasses had to be within 13.3 to 17kg and have a GR measurement of up to and including 15, The contract ran between 2 October and 11 November 1995.

Week	Bonus Premium (c/kg CW)	15kg carcass weight lamb
1	60	\$9.00
2	50	\$7.50
3	40	\$6.00
4	25	\$3.75
5	10	\$1.50
6	5	\$0.75

(iv) Summer Lamb Contracts

Richmond offer an Easter lamb to contract run between 22 January and 3 March 1996 for lambs between 14.9 and 17kg. A premium of 15c per kg is offered. A minimum of 100 lambs must be supplied and the producer must nominate the week of supply.

(v) Store Lamb Contracts

Canterbury

Finishing/mixed cropping farmers were offering store lamb producers \$23 to \$28 for lambs delivered in December/January 1995/96.

1.2.5 Beta Lamb Price

Alliance: A minimal number of Betas were killed from early September to the end of October 1995 and payment on carcasses of between 4 and 7.1 kg was set at \$3.36 per kg (less freight). (1994 payment was \$3.20 per kg, markedly less than the 1993 payment of \$4.36 per kg.)

1.2.6 Live Lamb and Sheep Shipments

In recent years the live lamb and sheep trade encountered difficulties in areas of animal welfare and co-ordination between exporters and importers. 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, which imports all live sheep (non-breeding) from New Zealand. Live lamb exports in 1995-96 are expected to decline 6.0 percent to 155,000 head, while live adult sheep exports are expected to remain at 495,000 head. At average slaughter weights, this is equivalent to 2,330 tonnes and 10,595 tonnes respectively of bone-in production.

1.2.7 Slink Skins

The price received for lamb slink skins in 1995 ranged from \$1.50 to \$1.70 per skin and was the same as for 1994. In 1993 slink skins averaged \$0.80 each.

1.2.8 Mutton Schedule (Export)

The following is an example of net prices offered to farmers for the various mutton grades. This information is usually available weekly in various newspapers and farming journals.

Weight	Grade	Waitotara	South Is Av.
		(Wanganui) \$	(PPCS/Alliance) \$
15.0	MM	10.62	11.06
17.0	MM	11.52	11.65
17.0	MX1	16.28	17.09
19.0	MM	12.42	12.23
19.0	MX1	17.74	18.31
19.0	ML1	18.12	18.38
19.0	MP	15.27	9.76
21.0	MX1	19.20	19.54
21.0	ML1	19.62	19.61
23.0	MX1	20.66	20.77
23.0	ML1	21.12	20.84
23.5	MX2	22.67	20.84
23.5	ML2	21.26	20.84
23.5	MH	16.32	15.75
23.5	MP	17.97	10.50
25.0	ML2	22.37	21.74
27.0	ML2	23.85	22.95
27.0	MH	18.18	17.10

Weight (kg)	Grade	Waitotara	South Is Av.
		(Wanganui) \$	(PPCS/Alliance) \$
27.0	MF	12.51	16.38
27.0	MP	20.07	11.07
30.0	ML2	26.07	24.76
Pelt	0.5 kg shorn	5.48	7.17

Note: The net mutton values are calculated on the same basis as for lamb (refer to Section 1.2.1). The value of a 0.5 kg pelt is included.

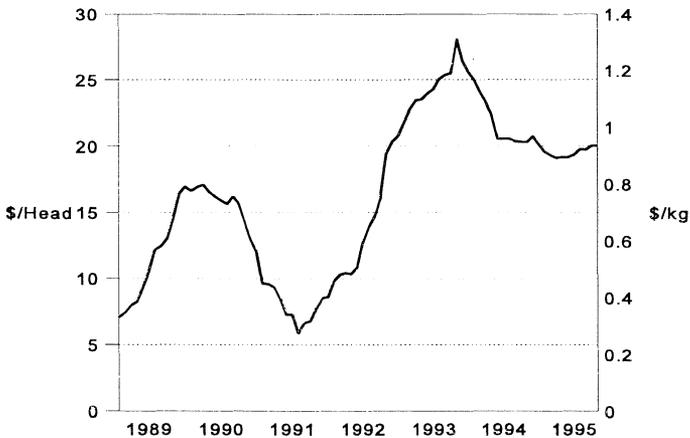
A line of cull ewes often contains a significant proportion of cutters (MPs) and this must be allowed for when analysing selling options.

Although Meat Companies have widely varying schedule setting methods the announced schedules are all in cents per kilogram. The net per head values are derived from these. All charges and levies are deducted and premiums added.

Source: N.Z. Farmer January 11 1996

1.2.9 Mutton Price Trends (Export)

(i) Net Value of a 21kg Ewe with a 0.3kg Pelt (January 1989 to December 1995)



Source: N.Z. Farmer Issues January 1989 to January 1996

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

	1991/92	1992/93	1993/94 (P)	1994/95 (E)
MXI Mutton (18 kg)	\$13.16	\$26.34	\$26.88	\$22.58
This price comprises:				
Baremeat schedule (c/kg)	48.30	113.20	114.00	77.00
Pelt and wool (\$/hd)	\$4.28	\$5.20	\$5.02	\$7.81
Mutton "all grades average"	\$12.42	\$25.76	\$26.73	\$21.70

Figures may not add due to rounding

P = Provisional

E = Estimate (as at June 1995)

Prices are at works, for year ended 30 September.

Source : N.Z. Meat and Wool Boards' 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) 1995:

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

	<u>Tuakau</u>	<u>Stortford</u>	<u>Addington</u>
Jan/Feb:			
Lambs	\$16-40	\$8-40	\$23-40
Hoggets	\$13-31	\$15-36	\$24-43
Ewes	\$3-23	\$6-27	\$6-19
Mar/April:			
Lambs	\$22-40	\$16-40	\$18-41
Hoggets	\$22-31	\$22-37	\$15-39
Ewes	\$8-30	\$6-30	\$3-18
May/June:			
Lambs	\$19-36	\$12-39	\$24-57
Hoggets	\$19-29	\$21-36	\$12-36
Ewes	\$6-29	\$9-36	\$5-30

July/Aug:

Lambs	\$19-44	\$12-45	\$15-48
Hoggets	\$19-30	\$15-44	\$9-34
Ewes	\$6-29	\$12-38	\$8-46

Sept/Oct:

Lambs	\$29-49	\$27-50	\$26-45
Hoggets	\$31-38	\$22-45	\$18-37
Ewes	\$15-37	\$15-39	\$10-31

Nov/Dec:

Lambs	\$25-46	\$26-48	\$26-42
Hoggets	\$22-40	\$26-51	\$30-39
Ewes	\$3-35	\$12-36	\$8-24

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

Source: "N.Z.Farmer" 1995 Issues; Lincoln University.

1.2.11 Sheep Prices - Store and Breeding Stock

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) 1988 to 1994***Lambs***

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	8.89	10.34	12.66	11.36	21.80
1989-90	19.87	23.25	23.14	23.98	26.22
1990-91	15.02	17.08	16.35	25.11	23.72
1991-92	13.65	19.43	19.32	24.60	25.52
1992-93	25.87	28.34	30.17	32.92	32.79
1993-94p	26.60	27.47	29.85	35.03	41.82
1994/95c	18.27	19.45	20.79	23.12	27.92

Two-Tooth Ewes

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	18.68	20.10	17.12	19.64	20.44
1989-90	28.23	31.76	29.96	25.51	32.13
1990-91	28.18	29.69	32.56	36.93	54.00
1991-92	26.46	29.27	35.00	39.27	53.83
1992-93	40.37	48.79	37.48	45.64	60.38
1993-94	48.39	51.12	42.05	53.31	60.10
1994-95e	34.71	36.21	29.43	33.97	41.58

Mixed Age Ewes

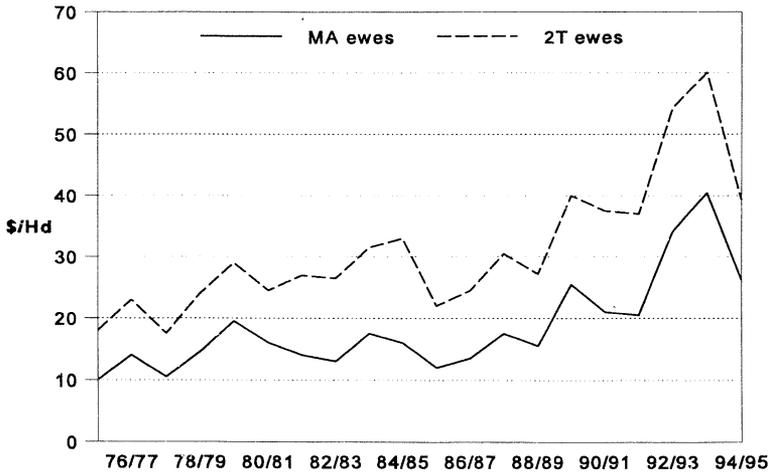
	North/South Auckland \$	East Coast \$	Taranaki Manawatu \$	Marlborough Canterbury \$	Otago S'Land \$
1988-89	9.98	10.69	11.41	13.58	19.60
1989-90	19.14	22.98	20.87	23.57	23.56
1990-91	14.51	19.47	17.86	22.62	29.79
1991-92	15.36	19.74	17.00	20.93	23.38
1992-93	28.75	33.96	30.79	29.80	30.06
1993-94p	35.47	34.33	34.77	35.46	37.67
1994-95e	25.13	23.10	23.97	20.98	23.59

p= provisional

e = estimate

Source : N.Z. Meat and Wool Boards' Economic Service

(ii) N.Z. Average Purchase Price for MA Ewes and two-tooths (1975 to 1995)
(\$/Head - All Regions Average)



Note: 1993/94 figures are provisional.
1994/95 figures are estimates.

Source: N.Z. Meat and Wool Boards' Economic Service

1.3 WOOL

1.3.1 Highest and Lowest Market Prices of Clean Wool (1994/95 and 1995/96) (Clean Market Price - cents per kg)

Description and Micron/Category	Colour	Length (Y-Z)mm	1995/96 (To Dec 1996)		1994/95	
			High (cents per kg)	Low (cents per kg)	High (cents per kg)	Low (cents per kg)
<i>Merino</i>						
18 Fleece	1	75	1595	1100	2643	2100
19 Fleece	1	75	1185	860	2115	1710
21 Fleece	1	80	960	690	1335	990
23 Fleece	1	85	810	635	855	696
21 Pieces	2.5	60	670	600	940	940
21 Bellies	2.5	60	-	-	957	735
<i>Halfbred and Corriedale</i>						
25 Fleece	2	90	757	605	740	660
27 Fleece	2	95	693	595	718	625
29 Fleece	2	100	670	580	663	604
31 Fleece	2	105	610	545	623	588
28 Pieces	4.5	75	610	570	579	579
28 Bellies	4.5	75	580	560	583	550
28 Lox	4	40	410	353	496	450
26 Lambs	1.5	50	-	-	-	-
28 Crutchings	3.5	50	428	350	500	470
<i>Crossbred</i>						
32 Fleece	3.5	110	601	526	611	586
33 Fleece	3.5	110	586	511	580	536
35 Fleece	2.5	125	556	503	543	498
35 Fleece	5	125	529	490	562	481
37 Fleece	3.5	125	547	471	560	462
37 Fleece	5	125	504	455	490	438
35 Pieces	8.5	100	495	438	487	434
35 Bellies	9.5	100	482	424	476	417
35 Lox	9.5	50	367	312	468	422
37 Crutchings	5	65	433	360	450	401

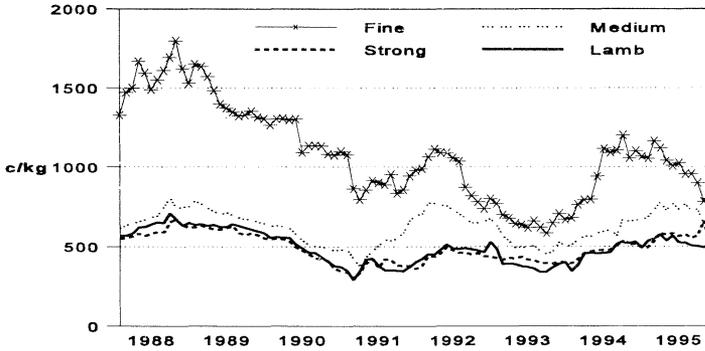
Description and Micron/Category	Colour (Y-Z)	Length mm	1995/96 (To Dec 1995)		1994/95	
			High (cents per kg)	Low (cents per kg)	High (cents per kg)	Low (cents per kg)
<i>Crossbred Second Shear</i>						
37 Fleece	3.5	100	514	456	468	411
37 Fleece	5	100	482	460	450	403
37 Fleece	3.5	85	496	449	465	407
37 Fleece	5	85	474	446	448	413
37 Fleece	3.5	75	478	434	462	405
37 Fleece	5	75	441	438	438	399
37 Fleece	3.5	65	466	425	453	398
37 Fleece	5	65	435	426	407	396
35 Bellies	8	65	393	344	400	335

Source: "N.Z. Farmer" 11 January 1996, *Wools of New Zealand*.

1.3.2 Wool Price Trends

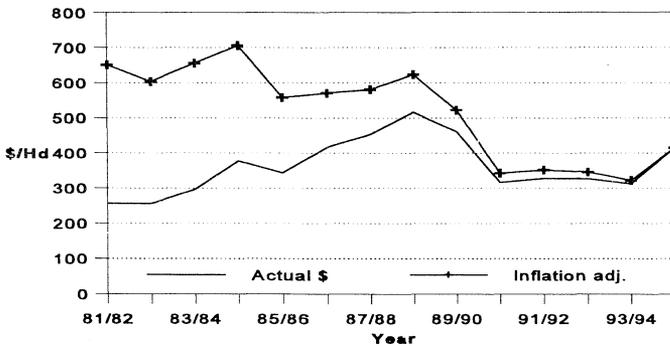
(i) Price Indicators 1988-95

Price trends for the four main segments of the New Zealand clip are shown on the graph. Prices are for clean wool: *Fine* = 18 to 24 micron; *Medium* = 25 to 31 micron; *Coarse* = 32 to 41 micron



Source: "N.Z. Farmer", Lincoln University

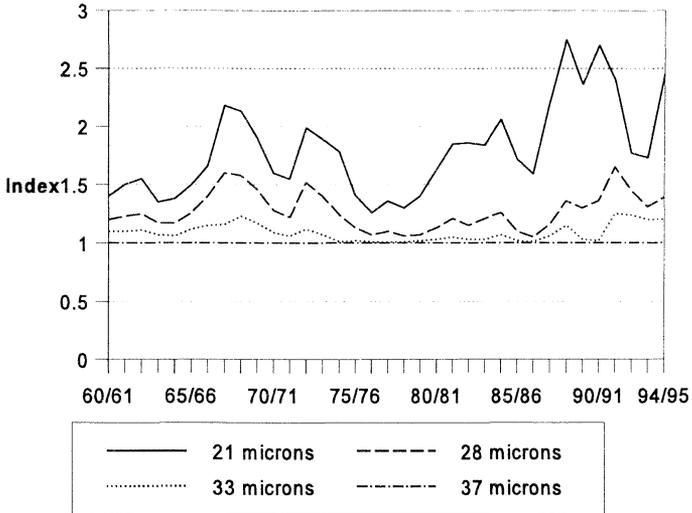
(ii) Actual and Inflation Adjusted Greasy Wool Price (Average Auction Price 1981 to 1995 - year ended June).



Source: Lincoln University; Wools of New Zealand.

1.3.3 Wool Price Ratios 1960 to 1995

Comparison of the prices received for 21, 28, and 33 micron fleece with the price received for 37 micron wool. The index used is 37 micron = 1.0



Source: Lincoln University; Wools of New Zealand.

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 are examples of net prices (cents per kg), as at January 11 1996. This information is usually available weekly in various newspapers and farming journals.

Net Price per kilogram:

Grade	Weight Range (kg)	Benmore (Auckland) c/kg	Waikato Meats c/kg	Alliance/PPCS (South Island average) c/kg	Phoenix (Southland) c/kg
L2 Steer	196-220	158	165	133	134
	221-245	164	172	143	145
	246-270	179	188	174	171
	271-295	185	193	186	172
P2 Steer	196-220	166	173	155	
	221-245	172	180	163	
	246-270	182	191	195	196
	271-295	188	196	210	207
	296-320	194	202	213	208
	321-345	199	208	205	203
346+	202	211	196	204	
T2 Steer	246-270	174	183	181	181
	271-295	180	188	195	192
	296-320	186	194	197	193
	321-345	169	178	143	
	346+	194	203	180	189
F2 Steer	271-295	158	166	141	
	296-320	164	172	143	
	321-345	169	178	143	
	346+	172	183	142	
P2 Heifer	171-195	154	162	130	148
	196-220	166	173	150	159
	221-245	172	180	159	165
	245-270	182	191	186	186
	271-295	188	196	198	197

Net Price per kilogram:

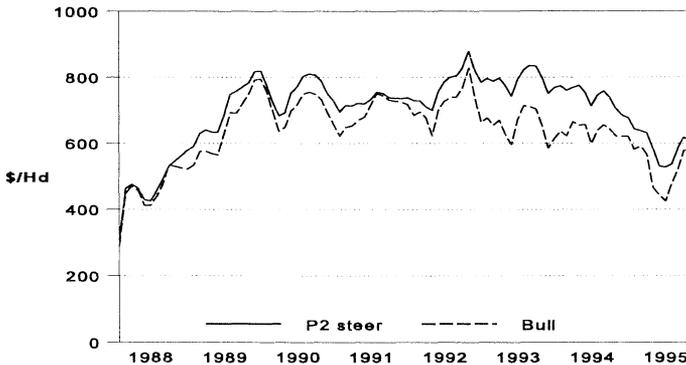
Grade	Weight Range (kg)	Benmore (Auckland) c/kg	Waikato Meats c/kg	Alliance/PPCS (South Island average) c/kg	Phoenix (Southland) c/kg
P2 Cow	196-220	156	153	119	-
	220-245	162	160	131	-
	245-270	167	166	147	-
	271-295	168	166	156	-
M2 Bull	196-220	151	168	142	158
	221-245	157	175	155	160
	245-270	167	181	168	171
	270-295	173	191	174	171
	296-320	179	197	177	178
	321-345	184	203	180	183
	346+	187	203	184	181

Note: Above values are on a "net of all levies" basis. Transport needs to be deducted.

Source: "N.Z. Farmer" January 11 1996

1.4.2 Beef Price Trends (Export)

**(i) Net Price Paid for 280 kg P2 Steer and 260 kg Bull
(January 1988 to December 1995)**



Source: "N.Z. Farmer" Issues January 1988 to December 1995

(ii) Cow Beef

	1990/91	1991/92	1992/93	1993/94	1994/95
				(P)	(E)
<i>Cow M Grade (145-170 kg)</i>	217c	211c	222c	200c	157c
<i>Cow M Grade (average per hd)</i>	\$342	\$334	\$351	\$316	\$249

P = Provisional

E = Estimate (as at June 1995)

Prices are at works, for year ended 30 September.

Source: M.A.F., Department of Statistics, Meat Producer's Board, N.Z. Meat and Wool Boards' Economic Service.

(iii) Bull Beef

	1990/91	1991/92	1992/93	1993/94	1994/95
				(P)	(E)
<i>Bull Grade (220-245 kg)</i>	268c	278c	287c	256c	203c
<i>Bull Grade (average per hd)</i>	\$627	\$651	\$670	\$600	\$474

P = Provisional

E = Estimate (as at June 1995)

Prices are at works, for year ended 30 September.

Source: M.A.F., Department of Statistics, Meat Producer's Board, N.Z. Meat and Wool Boards' Economic Service.

1.4.3 Beef Contracts and Pools

See also *Sections 1.5.6 and 1.5.7*

One South Island company was offering the following forward contract prices for early 1996 (January to March).

Weight Range (kg)	\$ per kg		
	<u>Steer</u>	<u>Bull</u>	
	Jan/Feb/Mar	Jan/Feb	Mar
245.5 to 270	\$1.95	\$1.65	-
270.5 to 320	\$2.10	\$1.72	\$1.70
320.5 to 345	\$2.06	\$1.70	\$1.68

Riverlands (a subsidiary of Huttons Kiwi) (1995/96)

Offers a bull grazing contract scheme whereby farmers may buy bulls of their choice and immediately "on sell" them to *Riverlands* at current market value. *Riverlands* now owns the bulls but leaves them with the farmer to feed and manage them to slaughter as if they were their own.

The "Grazing Fee" the farmer receives is the difference between their "on-hook" value and the price *Riverlands* bought them from the farmer, less a "holding costs margin" (currently 10.75% per annum flat of the purchase price) and a management fee. The farmer pays all "on farm" costs including animal health and deaths.

A minimum of 50 of any one age group is required. Bulls of any age from 5 days to 20 months may be contracted for specified kill periods and minimum carcase weights. Farmers with some bull farming experience are preferred.

The scheme allows farmers to operate a bull beef enterprise without tying up capital in stock. Their capital can be used for other investments with a higher opportunity cost.

AFFCO

The # 1 Bull Pool

Offers bull farmers throughout the North Island an innovative system which provides security of cash flow and competitive market returns. To qualify the farmer must commit 10 bulls, each three months of age or more and a minimum of 100kg liveweight. Farmers can receive advance payments and progress payments (at six month intervals).

Primeplan

Primeplan is operated as a Pool, targeted specifically at the developing Asian market and other premium table beef markets, and is reliant on quality and consistency of supply. To qualify the farmer must commit a minimum of 10 cattle, each at least 6 months old and weighing not less than 225kg. Steers and heifers both qualify. Optional advance and/or progress payments can be received in addition to payment after slaughter (plus a later final payment). Farmers can receive a grazing payment if they supply stock from July to October.

The Co-operative Cow Pool

This innovative monthly pool pays sustainable market returns and additional rewards to suppliers who meet specific criteria. An optional advance payment of \$150 per cow is available to approved suppliers who commit a minimum of 10 head. Cattle receiving the advance payment must be slaughtered before the 1st of April, or after the 1st of June.

The ANZA Beef Plan

The *New Zealand Angus Association* has introduced it's own Angus Beef brand. In conjunction with *AFFCO*, the *New Zealand Angus Association* plans to establish ANZA as a New Zealand beef brand that represents **outstanding quality**.

AFFCO has introduced new meat grading standards which recognise specific characteristics of consumer preference in target markets. All carcasses entered in the ANZA Beef Plan undergo chiller assessment the day following slaughter. To qualify for ANZA, selected cuts must meet the following criteria:

- Animals must grade P or T
- Meat colour grades 1-5 are acceptable
- Fat colour grades are acceptable
- pH level of the meat of 5.8 or less is acceptable
- Carcass weight of 295.1-365kg is required

Richmond

Prime steer, heifer supply winter contracts were offered from 3 July to 25 August 1995. A minimum carcass weight of 270.50kgs was required. Suppliers could elect to receive an interest free advance of up to 100% of *Richmond's* estimated schedule value as well as the grazing increment of 1.5 cents per kilogram carcass weight per week.

Asian beef programme This contract, which will operate from October 1995 to March 1996, offers farmers the opportunity to contract all heifer/steer grades of 300kg to 370kg carcass weight. The *Richmond* Pasture Prime market specification for the contract period is as follows:

- meat colour range 1 to 4
- fat colour range 1 to 4
- steer/heifer carcass of 300 to 370kg inclusive
- maximum pH of 5.8
- minimum fat level of 5mm
- muscling class 1 and 2

Bull beef supply contract (1995/96). *Richmond* will pay a cash payment of \$25 per calf to approved suppliers who undertake to farm the calves through to slaughter. This payment will be in advance and will be non-refundable on the basis that the supplier delivers to *Richmond* for slaughter, the contracted number of rising 2 year bulls between the period of January and March 1997.

Phoenix Meat

The 1995/96 *Phoenix* Calf Scheme involves the bailment of \$175 per head at 7% interest, which is repayable at stock sale time. The company retains \$260, which covers initial bailment, interest, administration fee (\$5.00) and an allowance for deaths.

1.4.4 Calf Slink Skins

The price received for calf slink skins in 1995 varied between the North and South Islands. In the South Island large skins fetched \$5.00 and small skins \$2.00, compared to the North Island where large skins fetched \$5.00, medium skins, \$3.00 and small skins \$2.00.

The price received for calf slink skins in 1994 ranged from \$6 to \$8 per skin and averaged \$5 in 1993.

1.4.5 Cattle Prices - Prime Stock (Local Sales)

Sales Information (three main sale centres) 1995:

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

	<u>Tuakau</u> \$/head	<u>Stortford</u> \$/head	<u>Addington</u> \$/head
Jan/Feb:			
Steers	\$447-1042	\$527-745	\$495-1031
Heifers	\$354-660	\$435-690	\$275-888
Cows	\$164-675	\$410-557	\$603-790
Mar/April:			
Steers	\$410-970	\$490-800	\$361-1068
Heifers	\$330-638	\$348-670	\$326-850
Cows	\$144-645	\$232-482	\$354-637
May/June:			
Steers	\$328-770	\$265-687	\$410-1093
Heifers	\$240-522	\$272-630	\$299-720
Cows	\$105-445	\$212-402	\$258-639
July/Aug:			
Steers	\$328-790	\$265-815	\$405-1005
Heifers	\$182-576	\$290-620	\$362-781
Cows	\$100-578	\$210-462	\$183-632
Sept/Oct:			
Steers	\$362-1048	\$392-940	\$591-1009
Heifers	\$327-600	\$332-628	\$328-781
Cows	\$150-470	\$310-500	\$337-688
Nov/Dec:			
Steers	\$418-1029	\$492-800	\$457-1057
Heifers	\$330-640	\$275-570	\$334-903
Cows	\$215-418	\$282-635	\$319-622

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

Source: "N.Z. Farmer" 1995 issues; Lincoln University.

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) 1988 to 1995:

2 Year plus Steers

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	450	465	520	-	375
1989-90	642	511	765	550	505
1990-91	612	444	716	-	575
1991-92	659	620	621	603	572
1992-93	692	745	730	602	-
1993-94p	730	672	664	-	-
1994-95e	548	504	586	-	432

1 to 1.5 Year Steers

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	385	380	410	205	335
1989-90	499	479	540	336	483
1990-91	506	484	570	551	519
1991-92	521	606	561	256	629
1992-93	520	549	521	583	531
1993-94p	541	577	547	603	391
1994-95e	380	439	442	367	391

Weaner Steers

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	175	250	245	210	205
1989-90	290	377	382	235	282
1990-91	291*	383	343	334	399
1991-92	307*	351	405	363	319
1992-93	296*	421	409	423	461
1993-94p	289*	419	342	383	462
1994-95e	192*	270	244	276	385

* Prices influenced significantly by the sale of bobby calves.

Weaner Heifers

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	170	215	190	195	170
1989-90	267	277	283	266	252
1990-91	275	243	267	260	266
1991-92	283	229	287	315	212
1992-93	246	288	281	376	290
1993-94p	218	304	294	362	337
1994-95e	168	198	231	218	260

1 to 1.5 year Heifers

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	260	365	310	265	245
1989-90	349	436	441	243	310
1990-91	376	451	512	342	312
1991-92	417	444	493	465	328
1992-93	409	507	384	366	428
1993-94p	444	481	456	560	509
1994-95e	277	369	289	251	391

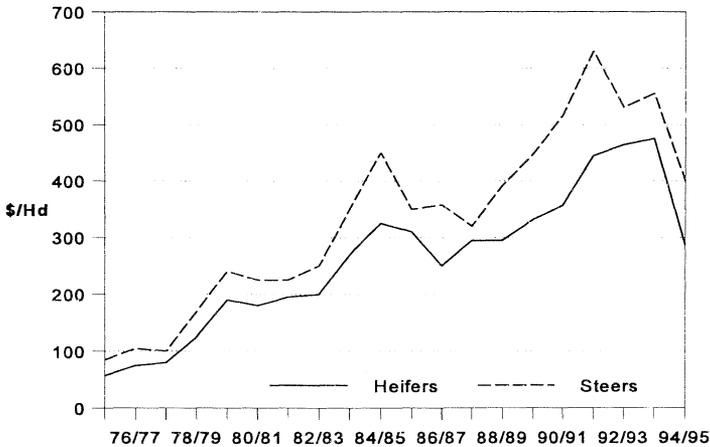
Cows

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
1988-89	375	350	470	-	280
1989-90	430	531	505	546	420
1990-91	400	593	508	531	-
1991-92	385	442	542	674	-
1992-93	592	559	516	680	592
1993-94p	522	636	525	570	598
1994-95e	360	367	362	570	600

p = provisional, e = estimate

Source: New Zealand Meat and Wool Boards' Economic Service.

(ii) N.Z. Average Purchase Price for 18 Month Steers/Heifers (1975 to 1995)



Note: 1993/94 figures are provisional
1994/95 figures are estimates

Source: New Zealand Meat and Wool Boards' 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.

The maximum fair market value of cattle (provided this does not exceed \$4000) is determined by:

- NZDB, in the case of dairy cattle;
- The Market Milk Federation of New Zealand Incorporated, in the case of town supply cattle;
- The New Zealand Meat Producers Board, in the case of beef cattle;

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: MAF Qual.

1.5 DAIRY PRODUCE

1.5.1 Milksolids Price Trends

Each season, the New Zealand Dairy Board announces an advance price to be paid, per kg milksolids, to the Dairy Companies. This may be altered during the season. A final distribution is made at the end of the season, usually increasing the overall total payout price. The companies are paid by the N.Z. Dairy Board on the 20th of each month. After the companies have deducted their manufacturing and administrative costs, and have possibly withheld amounts for capital development, they pay the residual amount to their suppliers on the 20th of the month following delivery, plus a final payout after the season's end.

(i) Dairy Company Payouts

The following Dairy Company payouts are given as examples:

<u>Company</u>	<u>Payout¹</u> <u>1989/90</u>	<u>Payout¹</u> <u>1990/91</u>	<u>Payout¹</u> <u>1991/92</u>	<u>Payout¹</u> <u>1992/93</u>	<u>Payout²</u> <u>1993/94</u>	<u>Payout²</u> <u>1994/1995</u>
Northland	595c/kg	390c/kg	544c/kg	611c/kg	318c/kg	323c/kg
N.Z.Dairy Group	-	-	600c/kg	650c/kg	339c/kg	350c/kg
Kiwi	645c/kg	450c/kg	610c/kg	651c/kg	339c/kg	340c/kg
Tui (Manawatu)	615c/kg	430c/kg	593c/kg	642c/kg	330c/kg	334c/kg
Marlborough	605c/kg	394c/kg	560c/kg	600c/kg	300c/kg	310c/kg
Alpine	580c/kg	380c/kg	540c/kg	595c/kg	311c/kg	325c/kg*
Otago Co-op	645c/kg	460c/kg	590c/kg	624c/kg	313c/kg	331c/kg

* up to 4c/kg on capital notes

¹ cents/kg milkfat

² cents/kg milksolids

(ii) N.Z. Weighted Average Payouts (Season Average Prices)

The "average" price quoted below is the average payout made by N.Z. Dairy Companies to their farm suppliers (the farm gate price for milkfat supplied that season). The "advance" payment is the average payment received by farmers for milk in the season in which it is supplied; in general the "final" payment being received the following season.

Milksolids in wholemilk for manufacture (cents per kg):

	<i>1984/85</i>	<i>1985/86</i>	<i>1986/87</i>	<i>1987/88</i>	<i>1988/89</i>	<i>1989/90</i>
<i>NZDB-Final</i>	228.29	230.32	190.45	205.52	302.68	331.13
<i>Company margin</i>	5.65	(1.05)	11.81	26.52	22.68	28.57
<i>NZ weighted average</i>	233.94	229.27	202.26	232.04	325.36	359.70

(See next page for 1990 to 1995 payouts)

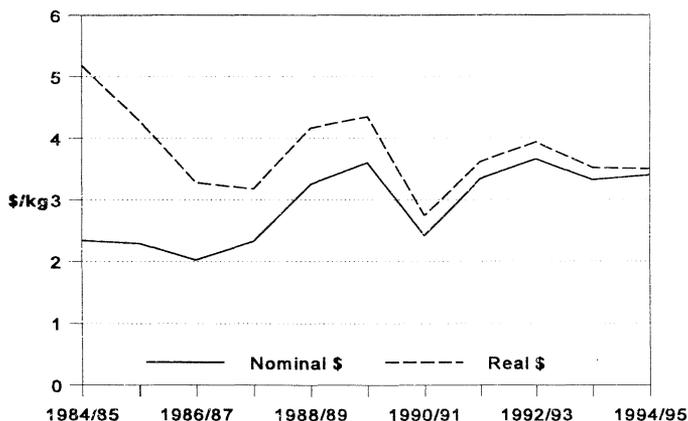
	1990/91	1991/92	1992/93	1993/94	1994/95
<i>NZDB-Final</i>	212.22	298.03	325.29	290	300
<i>Company margin</i>	29.76	36.42	40.54	41.72	39.85
<i>NZ weighted average</i>	241.98	334.45	365.83	331.72	339.85

Note: The above figures are all cents / kg milksolids. (Those prior to 1993/94 have been converted from milkfat by multiplying by 1.74.)

Source: New Zealand Dairy Board.

(iii) Average Payouts Since 1984 in Actual Dollars and in "Real" Dollars (Based on the value of the Dollar in December 1995 and adjusted for inflation).

Figures are \$/kg Milksolids.



Source: New Zealand Dairy Board.

1.5.2 Penalties for Poor Quality Milk

Two examples of the penalties imposed by Dairy Companies for poor quality milk in the 1995/96 season are quoted, one for the North Island and one for the South Island.

(i) Tui Milk Products Ltd :

Milk is graded into 3 categories: Finest milk, First Grade and Second Grade. A subsequent penalty is also imposed if there are more than 5 second grades in any one month. In some cases milk may receive no payment at all.

Milk tests are for the following:

Senses, Bactoscan, Total bacteria count, Thermoduric bacteria count, Cress, Colostrum/Immune proteins, Inhibitory substances, Added water, Sediment, Milk in sight-glass, Somatic cells.

The following penalties apply for manufacturing milk and winter contract milk supply: (Figures in brackets are for market milk supply)

First grade: 1.7 (2.0) cents per litre

Second grade: 3.7 (11.0) cents per litre

Subsequent penalty rate: 10.0 (22.0) cents per litre.

Exceptions are:

- Cress: 12.6 (14.0) cents per litre for first detection and nil payment for subsequent detections.
- Inhibitory substances: 3.7 (11.0) cents per litre if notified prior to collection, 12.6 (14.0) cents per litre if not notified, nil payment if more than 2 per season.
- Milk in sight-glass: warning on first 2 occasions and 1.7 (2.0) cents per litre on subsequent occasions.
- Somatic cell count: 400,000 to 600,000 - 1.7 (2.0) cents per litre
601,000 to 800,000 - 3.7 (11.0) cents per litre
> 800,000 - 10.0 (22.0) cents per litre
- With winter contract supply there are also penalties of 2.0 cents per litre (first) and 11.0 cents per litre (second) for unsatisfactory fat percentage and total solids percentage tests.

(ii) Loss of Income for Milk Quality Downgrades

The following information was supplied by a South Island dairy company.

- First grade - 10%
- Second grade - 40%
- Reject grade - 80%
- Non-notified inhibitory substances - 100% loss of income
- Organoleptic(senses) grades - 100% loss of income

Note: Sharemilkers may carry full financial implication of penalty eg. If the farm has a second grade they lose 40% of income to the farm - the sharemilker will probably carry all this, which for a 50:50 sharemilker means an 80% loss of income.

1.5.3 Winter Milk Contracts: (see also *Section 1.5.2* for milk penalties.)

South Island Dairy Farmers Ltd (now trading as *Meadow Fresh Foods*) operates a two tier system for winter milk contracts. The contract period is the four months May to August inclusive.

- town supply contracts- a set daily number of litres which a farmer is required to supply throughout the whole year (including winter).
- winter supply contract- is in addition to town supply contract (where a supplier also has a town milk contract).

The 1996 price for both winter contract and winter town supply milk is \$7.06/kg milksolids paid as \$4.47/kg milkfat and \$9.94/kg protein plus 1.50 cents per litre storage allowance. To qualify for a winter milk contract, a supplier must produce milk throughout the four month contract period.

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

In the Auckland and Waikato regions, a premium of 31 cents per litre above the manufacturing payout was paid for contract milk in May, June and July 1995. The premium for winter 1996 will be 27.9 cents per litre. (*N.Z. Dairy Group of Companies*).

Northland Dairy Company offers a system by which the supplier contracts a nominated volume which has to be supplied within a 20% range to the company for at least 7 out of the 9 winter 10 day periods. All milk supplied outside the 20% range receives manufacturers price.

The supplier receives a 50% premium above normal payout for supply in May, June and July. Participating farmers must supply at least a nominated volume of 500 litres per day.

The contract is reviewed annually at the farmer's discretion.

1.5.4 Sire Proving Payments

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

\$50 for heifers herd tested under self sample system

\$59 for heifers herd tested under self sample assist or sampling officer options.

Provisional payments are set in the year the bulls are first used and are reviewed for the season in which the qualifying heifers will be milked.

1.5.5. Dairy Cattle Sales (1995/96)

Actual prices for spring 1995 and predictions for 1996 for dairy cattle are presented below for five regions:

Waikato

	Class	Spring 95		Autumn 96	
		High BI	Low BI	High BI	Low BI
Mixed age cows	Friesian	\$1110	\$800	\$1100	\$900
	Jersey	\$1000	\$750	\$1000	\$750
Rsg 2yr heifers	Friesian	\$1000	\$550	\$900	\$550
	Jersey	\$800	\$400	\$800	\$400
Rsg 1yr heifers	Friesian	\$350-\$400	-	\$350-\$400	-
	Jersey	\$250-\$300	-	\$250-\$300	-
4-day heifer calves		\$1.00/BI unit			
100kg weaners	Friesian	\$180-\$220	\$150		
	Jersey	\$180			

Bay of Plenty

Mixed age cows for forward delivery in June 1996 were selling for \$900 to \$1200 in January 1996. This is approximately the same as 1995. In early 1996 *rising 2 year olds* are expected to be worth up to \$900-\$1100 and *rising 1 year olds* are expected to be worth up to \$500.

Taranaki

		Winter/Spring 1995	Summer 1995/96	Winter/Spring 1996 (E)
<i>MA Cows</i>	J	\$700-\$900	-	\$800-\$1000
	F	\$900-\$1000	\$1000-\$1100	\$1000-\$1100
(for 1/6/96 delivery)				
<i>Rsg 2yr heifers</i>		\$600-\$700		\$750-\$850
<i>Rsg 1yr heifers</i>		\$240-\$250	\$350-\$400	\$400-\$450
<i>Heifer calves</i>		\$50-\$80	-	\$110-\$130
		\$60-\$80	\$240-\$250	\$120-\$140

Some cheaper lines of cows have been selling for \$650 to \$750 per head. Budget priced cows usually sell in autumn for cull cow price plus a margin of \$100 to \$200.

Manawatu/Wairarapa

	Winter/Spring 1995		Summer/Autumn 1996 (E)
	High BI	Low BI	
<i>Mixed age Cows</i>	\$1000-\$1150(F)	\$700(F)	\$750-\$900(F)
	\$800-\$1000(J)	\$600(J)	\$600-\$800(J)
<i>Rsg 2yr heifers</i>	\$1000-\$1100(F)	\$800(F)	\$700-\$800(F)
	\$800-\$900(J)	\$500(J)	\$500-\$600(J)
<i>Rsg 1yr heifers</i>	\$400-\$500(F)	\$250(F)	\$400(F)
	\$300-\$350(J)	\$150(J)	\$300(J)
<i>4-day Heifer calves</i>	\$100-\$130	\$20	

Canterbury

	Winter/Spring 1995	Summer 1995
<i>Mixed age cows</i>	\$900-\$1150	\$900-\$1150
<i>Rsg 2yr heifers</i>	\$700-\$1150	\$700-\$1050
<i>Rsg 1yr heifers</i>	\$400-\$500	\$500-\$600
<i>4-day heifer calves- high BI</i>	\$100-\$130	
<i>- low BI</i>	\$50	

Southland

		Autumn '96 (June delivery)	
		High BI	Low BI
<i>Mixed age cows</i>	F	\$1200	\$950
	J	\$1050	\$850
<i>Rsg 2yr heifers</i>	F	\$1050	\$750

		Autumn '96 (June delivery)	
		High BI	Low BI
	J	\$800	\$600
<i>Rsg 1yr heifers</i>	F	\$380	\$280
	J	\$300	\$200
<i>4-day heifer calves</i>		\$1.40/BI unit	\$1.00/BI unit

Cost of transport from the Waikato to Southland is approximately \$185 per head.

1.5.6 Dairy and Dairy-cross Calves (Refer also to *Sections 1.4.3 and 1.5.7*)

(i) Calves sold for rearing (spring 1995):

The price depended on district and sex, breed and weight of calves.

In the Waikato four day old friesian bull calves sold for \$40 to \$70, white faced heifers \$40 to \$50, friesian heifers were selling for \$1.00 per B.I. and beef cross bull calves \$40 to \$70 each.

In Canterbury top quality four day old friesian bull calves sold for \$120 to \$130 and average calves sold for \$80. Friesian heifers sold for \$60 to \$70 and beef cross heifers sold for \$70 to \$80. Prices averaged \$80 to \$120 in 1994 and \$120 to \$140 in 1993.

(ii) Bobby Calf Price at Farm Gate:

Dairy Meats New Zealand Limited - Boned in hot carcass weight

	11.0-13.5kg (c/kg)	13.6-18.5kg (c/kg)	18.6+ (c/kg)
1991/92	225.59	288.71	377.52
1992/93	198.17	226.45	287.80
1993/94	133.67	186.31	281.54
1994/95	187.61	215.77	299.59

1.5.7 Dairy Beef Weaners - (Refer also to *Section 1.4.3*)

In the Waikato, weaned 100 kg friesian bull calves sold for \$200 to \$220 and beef cross bull calves sold for \$200 to \$230 each, as at January 1996.

In Canterbury during December 1995 and January 1996 100 kg friesian bull calves sold for \$130 to \$140 each and beef cross calves sold for \$200 to \$230, compared to \$280 in 1994 and \$350 per head in 1993.

1.5.8 Cow Beef - See *Section 1.4.2 (ii)*

1.5.9 TB Compensation for Dairy Cows - See *Section 1.4.7*

1.6 DEER PRODUCTION

1.6.1 Venison Schedule (Export)

Schedule information is available weekly from a number of sources. An example only is given here. (\$ per kilogram carcass weight)

Grade	Weight range kg	North Island		South Island			
		<i>Summit</i>	<i>Duncan</i>	<i>Mair</i>	<i>Duncan</i>	<i>PPCS</i>	<i>Mair</i>
		\$	\$	\$	\$	\$	\$
Hind							
AP	30	57	102	104	101	119	103
AP	37	201	161	159	156	165	158
AP	40	218	174	172	170	179	171
AP	45	292	260	264	268	283	263
AP	50	335	300	314	307	315	313
AP	55	369	366	362	360	375	362
AP	60	403	400	396	393	409	395
AP	70	408	440	438	439	471	437
AP	80	468	452	457	459	508	457
AP	90	347	478	479	481	560	479
AF/AT	50	175	272	226	274	262	226
AF/AT	60	211	355	315	354	315	314
AF/AT	70	264	400	357	403	422	357
Stag							
AP	40	222	178	176	174	181	175
AP	45	296	265	268	273	288	268
AP	50	340	305	319	312	320	318
AP	55	374	372	368	365	380	367
AP	60	409	406	402	399	415	401
AP	65	444	441	436	433	444	435
AP	70	415	447	445	446	478	444
AP	75	446	438	443	437	484	443
AP	80	476	460	465	467	516	465
AP	85	506	489	482	471	549	481
AP	95	376	514	516	518	601	515
AF 1/AT	60	217	361	321	360	321	320
AF 2	70	195	349	235	233	326	234

Note: GIB levy and MAF Qual. inspection fees have been deducted from all of the above figures except *PPCS*.

Source: "N.Z. Farmer" January 11th 1996

Fallow Schedule :

Example of a fallow schedule as at November 1995
(gross dollars per kg carcase weight)

Weight (Grade-AP)	16 kg	18 kg	21 kg	24 kg	27 kg	30 kg
\$/head	34	70	99	116	131	117

Prices are net of GIB Levy, MAF fees and Animal Health levies.

Source: Agri-Fax

1.6.2. Venison Contracts

One South Island company was offering the following forward contract prices for early 1996 (January to March)

Weight range (kg)	<u>Stags</u>			<u>Hinds</u>		
	\$/kg			\$/kg		
	Jan	Feb	Mar	Jan	Feb	Mar
40.1-50	6.20	5.90	5.70	6.10	5.80	5.60
50.1-60	6.50	6.20	6.00	6.40	6.10	5.90
60.1-70	6.60	6.30	6.10	6.50	6.20	6.00
70.1-85	6.75	6.45	6.25	6.65	6.35	6.15
85.1-100	6.60	6.30	6.10	6.50	6.20	6.00
>100	6.45	6.15	5.95	6.35	6.05	5.85

1.6.3 Venison Price Trends

(i) **Venison Schedule prices 1989 - 1995** (year ended 30 June)

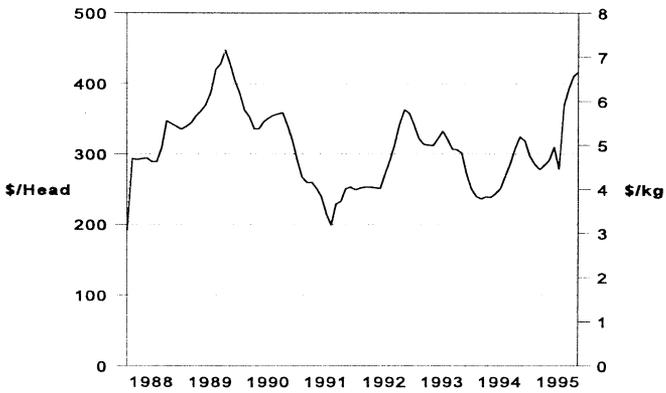
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Grade AP2 (50-65 kg) (\$/kg)	\$6.30	\$4.84	\$4.24	\$5.50	\$4.65	\$5.30
Av 40-50 kg Hinds (\$/kg)	\$4.29	\$3.24	\$2.70	\$4.50	\$4.35	\$5.20

E = Estimate (as at April 1995)

Prices are net of GIB levy.

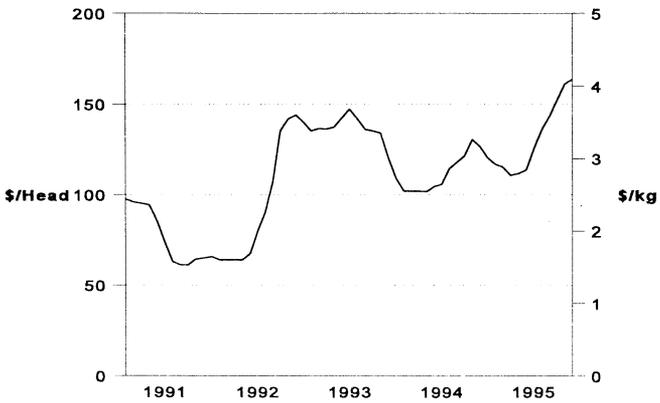
Source: Department of Statistics

(ii) Average Schedule Price for AP Grade Venison (60 kg Animal), 1988 to 1995



Sources: Lincoln University; "N.Z. Farmer" 1988-1996

(iii) Average Schedule Price for AP Grade Venison (37 kg hind), 1991 to 1995



Sources: Lincoln University; "N.Z. Farmer" 1991-1996

1.6.4 Deer - Live Sales

Livestock prices can vary markedly through the year and between districts.

Livestock Prices as at January 1996

The following are estimated price ranges (as quoted by one stock firm):

<u>Red Deer</u>	<u>1994/95</u>	<u>1995/96(E)</u>
Weaner hinds	\$100-\$170	\$150-\$200
Rising 18mth hinds	\$250-\$350	\$300-\$350
Mixed age hinds	\$300-\$350	\$350-\$450
Cull for age hinds	\$250-\$300	\$250-\$300
Weaner stags	\$130-\$180	\$160-\$230
Rising 18mth stags	\$250-\$350	\$350-\$400
Mixed age velvetting stags	\$600-\$1000	\$600-\$1000
Breeding stags	\$3000-\$25000	\$3000-\$25000

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

Weaner hinds	\$2.50-\$2.80/kg	\$2.80-\$3.20/kg
Weaner stags	\$2.80-\$3.20/kg	\$3.80-\$4.20/kg

Wapiti and wapiti cross

Weaner hinds	\$180-\$250	\$250-\$300
Rising 18mth hinds	\$350-\$500	\$400-\$600
Mixed age hinds	\$500-\$1000	\$500-\$1000
Weaner stags	\$250-\$500	\$350-\$600
Rising 18mth stags	\$300-\$800	\$400-\$800
Mixed age velvetting stags	\$600-\$1400	\$600-\$1400
Breeding stags	\$2500-\$30000	\$2500-\$30000

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

1993/94 Season Average Prices (Red deer)

Weaner Stags	\$140
Weaner Hinds	\$90
Mixed Age Hinds	\$225 to \$300
Velvetting Stags	\$450 to \$500

Source: MAF

1.6.5 Velvet

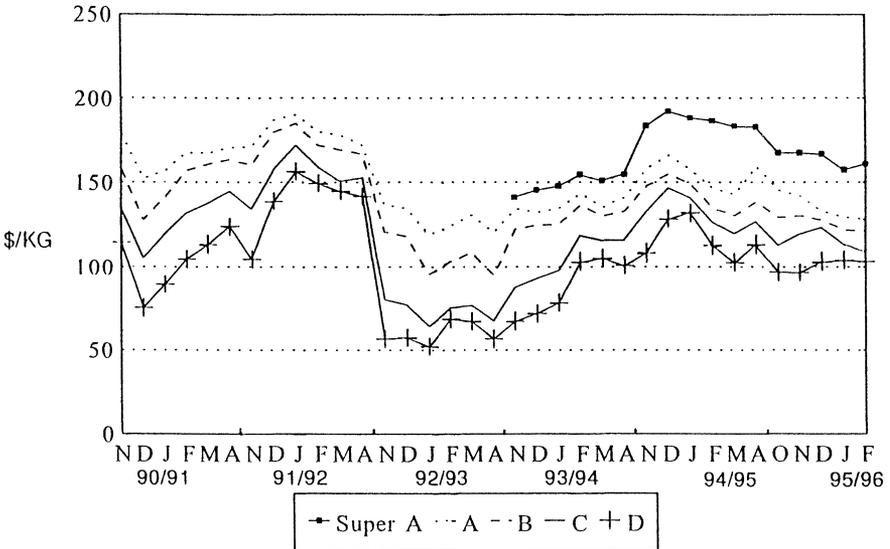
(i) Velvet Pool Prices by Grade (\$ per kg):

	1995/96	1994/95	1993/94	1992/93
Super A	\$153-172	\$170-199	\$134-148	\$121-148
A 1 & 2	\$112-157	\$142-181	\$119-144	\$108-145
B 1 & 2	\$105-136	\$126-162	\$104-137	\$82-134
C 1 & 2	\$101-130	\$111-155	\$71-107	\$52-98
D 1 & 2	\$82-116	\$95-136	\$56-87	\$41-75
E	\$61-90	\$82-114	\$35-60	\$32-56
Manufact.	\$45-80	\$18-70	\$18-29	\$17-39
Taiwan 1	\$118-156	\$119-177	\$60-127	\$90-126
2	\$102-125	\$100-138	\$60-127	\$85-124
3	104-128	\$107-147	\$60-127	\$81-114
4	\$62-113	\$70-110	\$60-127	\$69-113
Spiker 1	\$96-119	\$90-130	\$40-86	\$34-65
2	\$78-95	\$71-112	\$40-86	\$34-65
Regrowth	\$36-110	\$45-111	\$22-52	\$11-36
Overgrown	\$52-66	\$60-121	-	\$26-86
Damaged	\$75-129	\$55-156	\$43-98	\$32-100
Wapiti	-	-	-	\$111-158

These figures represent a range of prices paid over the November to January period. Prices are net of GIB Levy of \$3.30 per kg, handling/grading charges (\$4 per kg) and commission of 3.5%. A levy of 10 cents per kg is paid to the NZDFA (New Zealand Deer Farmers Association).

Source: *Velpool Holdings Ltd.*

(ii)Velvet National Average Monthly Prices 1990 to 1996 (January)



Source: Game Industry Board.

(iii)Wapiti Velvet - See also (i), previous page

The following prices are from the South Island sales (December 1995, January 1996)

	1994/95	1995/96
Supreme	\$251.00	\$210.77-\$215.99
EW1 -long	\$235.00	\$171.21-\$191.40
-short	\$235.00	\$180.99-\$193.40
EW2 -long	\$221.00	\$160.01-\$171.40
-short	\$221.35	\$176.99-\$192.10
EW3 -long	\$185.11	\$121.21-\$150.80
-short	\$185.11	\$126.21-\$150.99
EW4 -long	\$185.11	\$110.77-\$125.00
-short	\$185.11	\$115.77-\$130.00
EW overgrown		\$60.13-\$110.10

Source: Wrightsons

(iv)Fallow Velvet

At time of printing (February 1996) there had been no sales of Fallow velvet for the 1995/96 season. There were only sales of small quantities in 1994/95

		<u>\$ per kg</u>	
	1994/95	1993/94	1992/93
A2	-	\$50	\$28 to \$32
B1	\$50	\$45	\$61
B2	\$57	-	\$22
C1	\$36	\$30 to \$45	\$25 to \$32
C2	\$30 to \$55	\$30 to \$41	\$8 to \$15
Damaged 1	-	-	\$10
Manufacturing	\$5	\$5 to \$13	\$2 to \$5
Spiker	\$15	-	\$3
Hard Antler 1	-	-	\$8.50
Hard Antler 2	-	\$5.50	\$5 to \$6

Source: Velpool Holdings Ltd

1.7 GOAT PRODUCTION

1.7.1 Introduction

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

1.7.2 Chevon (Goat Meat) Prices

(i) Schedule Prices:

These are normally available on a weekly basis, (prices are \$ per head).

Carcase weight	KCL \$	Grace \$	PPCS \$
4kg	-1.60	-1.66	7.90
6kg	3.80	4.94	12.10
8kg	5.60	7.14	16.30
10kg	13.90	13.34	20.50
12kg	17.00	16.34	18.10
14kg	20.10	19.34	21.20
16kg	24.00	20.74	24.30
18kg	27.20	23.54	27.40
20kg	8.40	18.34	14.70

Source: "N.Z. Farmer", January 11 1996

(ii) Prices in Past Seasons:

Average prices were as follows for 12 kg goats:

	North Island	South Island
1994/95	\$14.59	\$19.59
1993/94	\$13.49	\$20.41
1992/93	\$9.01	\$15.72
1991/92	\$6.80	\$12.44
1990/91	\$7.40	\$10.80
1989/90	\$8.00	\$13.20

Source: Meat Board News

1.7.3 Goat Milk

Milk for processing in 1995/96 is estimated to fetch between 60 and 85 cents per litre in the North Island, depending on the type of product that is to be manufactured (unchanged from 1994/95). 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. Outside these regions, goat milk production is limited and returns to individual producers vary widely, depending on local supply and demand.

1.7.4 Goat Fibre

A world wide shortage of all goat fibres has caused a large increase in prices which should be sustainable in the foreseeable future.

(i) Mohair Sales

The following are the average prices (\$NZ per kg fleece) for mohair as at December 1995, 1994 and 1993:

Grade	1995	1994	1993
	Average Pool Price \$NZ/kg	Average Bin Price \$NZ/kg	Average Bin Price \$NZ/kg
A O Super Fine Kid (ASFK0)	\$15.00	\$17.00	\$11.00
A Super Fine Kid (ASFK1)	\$12.00	\$13.00	\$8.50
B Super Fine Kid (BSFK1)	\$7.00	\$7.50	-
A O Kid (AK0)	\$9.00	\$14.00	\$10.00
A Kid (AK1)	\$8.00	\$8.00	\$7.00
A 2nd Kid (AK2)	\$7.00	\$7.50	\$5.00
A O Young Goat (AYG0)	\$6.50	\$10.00	\$7.00
A Young Goat (AYG1)	\$5.50	\$9.00	\$5.30
A 2nd Young Goat (AYG2)	\$5.00	\$4.80	\$4.80
B O Kid (BK0)	\$7.00	\$9.00	\$7.00
B Kid (BK1)	\$7.00	\$7.50	\$4.50
B O Young Goat (BYG0)	\$7.00	\$6.50	\$5.00
B Young Goat (BYG1)	\$7.00	\$6.50	\$4.50
B 2nd Young Goat (BYG2)	\$4.00	\$4.30	\$2.50
A Xbred Young Goat (AXBYG)	\$3.00	\$4.00	\$1.50
A O Adult (AH0)	\$5.50	\$8.00	\$5.50
A Adult (AH1)	\$5.00	\$8.00	\$4.50
BO Adult (BH0)	\$5.50	\$6.50	\$4.00
B Adult (BH1)	\$5.00	\$6.00	\$4.00
A 2nd Adult (AH2)	\$4.50	\$7.00	\$3.80
Inferior (XXB3)	\$1.00	\$2.50	\$0.50
Stained Mohair (STN)	\$3.00	\$3.50	\$1.00
Heavily Stained Mohair (HSTN)	\$1.00	\$2.50	\$0.75
Cotted (COTT)	\$3.00	\$3.50	\$1.00
Coloured Mohair (COLMO)	\$1.00	\$2.00	-

(ii) Cashgora Sales (1995)

Cashgora yields from G4 goats range from 0.7 to 1.5 kg per goat.
These prices are per kg raw fibre.

Grade:	\$/kg
Cashgora A	\$15.00
Cashgora B	\$13.00
Cashgora D	\$10.00
GY/BR (coloured) Cashgora	\$8.00

(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.

1995 prices

	\$NZ/kg Fleece
WW1/WC1	\$100.00
WW2/WC2	\$80.00
GY1/GY2/BR1/BR2	\$70.00

1994 prices were based on \$100.00 per kg of white down, with a world wide shortage.

1993 prices were based on \$60.00 per kg of down yield, but very little was sold.

Source: South Island Mohair Warehouse Co.Ltd

1.7.5 Goat Fibre Export Price Trends

Table of Fibre Export Prices 1989 to 1995: (year ended June)

	1991	1992	1993	1994	1995(E)
<i>Mohair (Fleece)</i> (per kg)	\$5.02	\$5.68	\$4.20	\$4.21	\$7.32
<i>Cashgora (Fleece)</i> (per kg)	\$6.95	\$6.91	\$3.35	\$7.71	\$10.57
<i>Cashmere (Down)</i> (per kg)	\$27.25	\$35.31	\$10.22	\$28.70	\$8.36

Note: Prices are average New Zealand FOB.
E = Estimate (as at December 1995)

Source: Department of Statistics

1.7.6 Goat Livestock Sales

Goat prices continue to be volatile. Apart from meat schedules that have remained stable for two years, recent price improvements for all goat fibre is reflected in higher stock prices especially for quality animals. As at early 1996 goat prices are mostly unchanged from early 1995, except for Boer goats. The U.S.A. exotic animal demand for Boer goats has deflated dramatically, although prices are still very variable.

Typical prices in December 1995 were as follows:

Does	● Texan and Zim Angora Purebred and crossbreds	
	-Adults	\$200 to \$1000
	-Kids	\$50 to \$500
	● Commercial Angoras	\$15 to \$50
	● Farmed Ferals	\$5 to \$25
	● Cashmere and Cashgora	\$15 to \$40
	● South African Boer purebreds	
	-Adults	\$1000 to \$5000
	-Kids	\$500 to \$2000
	● Boer Crossbreds	
	-Adults	\$20 to \$100
	-Kids	\$20 to \$100
Wethers (Angora)		\$10 to \$30
Bucks	● Texan and ZimAngora Purebreds and Crossbreds	\$100 to \$1000
	● Boer purebreds (meat)	\$500 to \$2000
	● Boer Crossbreds	\$100 to \$1000
	● Cashmere and Cashgora	\$50 to \$500

Source: Garrick Batten, Registered Farm Management Consultant

1.8 PIG PRODUCTION

1.8.1 Pork Prices

The Pork Marketing Board has set a minimum price to maintain the viability of pig production. The *Canterbury Frozen Meat Company* operates at this schedule, as set out below (11 January 1996):

Weight ranges and payments based on "on hooks", "hot" carcass weight., cents per kg (net). These prices are subject to change at short notice.

CODE	A	B	C	D	E
	under 35 kg	35.0-40.0 kg	40.5-45.0 kg	45.5-50.0 kg	50.5-55.0 kg
<i>Fat Measure</i>	cents	cents	cents	cents	cents
Z < 6 mm	200	200	200	200	200
1 6 - 9	220	270	275	275	275
2 10 - 12	220	220	245	270	275
3 13 - 15	115	115	115	145	165
4 16 - 18	110	110	110	125	135
5 19 - 21	100	100	100	100	100
6 22 - 24	100	100	100	100	100
7 Over 24	100	100	100	100	100

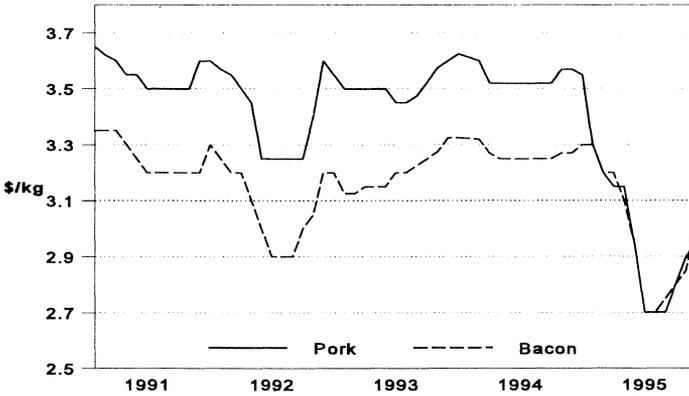
CODE	F	G	H	I	J
	55.5-60 kg	60.5-65.0 kg	65.5-70.0 kg	70.5-75.0 kg	Over 75.0 kg
<i>Fat Measure</i>	cents	cents	cents	cents	cents
Z < 6mm	200	200	200	200	200
1 6 - 9	275	275	275	275	275
2 10 - 12	275	275	275	275	275
3 13 - 15	225	225	225	225	225
4 16 - 18	135	135	135	135	135
5 19 - 21	110	110	110	110	110
6 22 - 24	100	100	100	100	100
7 Over 24	100	100	100	100	100

Deductions (per pig) include the *Pork Industry Board Levy* \$4.42, *Federated Farmers Levy* (\$0.0184), *Meat Inspection Levy* (\$3.00), to make a total of \$7.44 per pig.

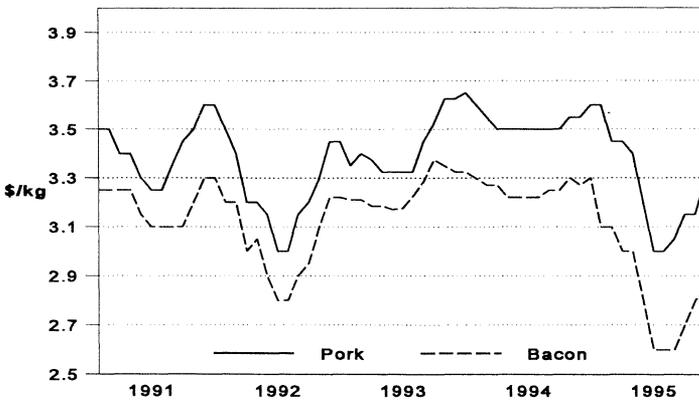
1.8.2 Average Pigmeat Returns 1991-1995

The following are average monthly return for pigs, on a per kg basis, sold in three regions from 1991 to 1995 (C2 Pork and G2 Bacon).

(i) Waikato

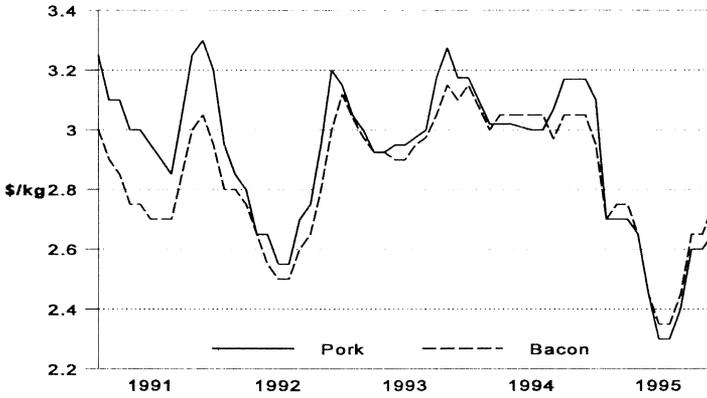


(ii) Manawatu



Source: Pork Industry Board

(iii) Canterbury



Source: Pork Industry Board

1.8.3 Live Pig sales

	<u>Canterbury</u>	<u>North Island</u>
	\$/head	\$/head
Weaners-small	25	30-40
-large	35-40	55-68
Slips	40-50	55-65
Stores	50-70	60-80
Porkers	100-110	105-125
Bacon	140-170	3.00/kg
Sows	200-230	-
Choppers	100-160	100-160

Source: Wrightsons

1.9 EMUS AND OSTRICHES

1.9.1 Introduction

Although well established in other countries ratite farming is a relatively new industry in New Zealand. There are no established markets at present for any of the potential products which include meat, leather, feathers, eggs and in the case of emu, oil. During the expansion phase of the industry, sales of livestock to establishing farmers or investors (through share-farming and other agreements) is the only major source of income to already established farmers.

1.9.2 Livestock Prices

There are some important variables to consider when assessing the value of individual animals. These include hatch dates and bloodline history, which will strongly influence when birds will begin laying for the first time and how many eggs they will produce. Demand for stock is also a very important factor. If investor interest wanes before the establishment of a stable industry, demand for livestock may slow and lower values substantially in the foreseeable future. Caution is needed in budgeting using current prices.

The following prices are those ruling in January 1996.

		(\$/head)
Ostrich	● Chicks (3+ months)	\$8,000-15,000
	● Yearlings	\$20,000-35,000
	● Adults/Breeders	\$40,000-65,000
Emu	● Chicks (2+ months)	\$3,000-4,500
	● Yearlings	\$8,000-15,000
	● Adults/Breeders	\$20,000-30,000

1.10 CROPS

1.10.1 Wheat

Most wheat is grown under contract to various mills. Advance payments are made in some contracts (a percentage at sowing, more at harvest, with a final payment in the following September) and storage increments are also paid by some companies.

South Island Contract prices 1995/96:

(i) Bread Wheat

Fixed price bread wheat contracts delivered to *Defiance* mill.

	\$ / tonne (for protein 11.7 to 11.9%)	Range depending on quality (protein)
Monad	\$300	(\$258.62 to \$325.86)
Otane	\$290	(\$250 to \$315)
Domino	\$290	(\$250 to \$315)
Batten/Kotuku	\$285	(\$245 to \$309.57)

Note: Storage increment is 1% per month from 1 April 1996

Spread payment bread wheat contracts with quarterly (May, Aug, Nov and Feb) payments independent of delivery to *Defiance* mill

	\$ / tonne (for protein 11.7 to 11.9%)	Range depending on quality (protein)
Monad	\$318	(\$276.70 to \$343.81)
Otane	\$308	(\$268 to \$333)
Domino	\$303	(\$268 to \$333)
Batten/Kotuku	\$298	(\$263.65 to \$327.59)

(ii) Biscuit Wheat

Speciality biscuit wheat contracts *Defiance* mill

Farm Gate Price \$/tonne	Protein percentage
\$230	9.7 to 10.1%
\$240	10.2 to 10.6%
\$250	10.7 to 11.6%
\$240	11.7 to 12.1%
\$230	12.2%+

Note: Storage increment is 1% per month from 1 April 1996

Spread Payment biscuit wheat contract delivered to *Defiance* mill.

Sapphire Larnoch Bounty <u>\$/tonne</u>	Brock Jasper <u>\$/tonne</u>	Protein percentage
\$257.18	\$267.90	up to 8.5%
\$273.60	\$285.00	8.6 to 9.5%
\$257.18	\$267.90	9.6 and above

Fixed Price biscuit wheat contracts delivered to *Defiance* mill.

Sapphire Larnoch Bounty <u>\$/tonne</u>	Brock Jasper <u>\$/tonne</u>	Protein percentage
\$243.65	\$253.80	up to 8.5%
\$259.20	\$270.00	8.6 to 9.5%
\$243.65	\$253.80	9.6 and above

Purple wheat contracts were for \$300 per tonne for mid range protein quality.

(iii) Feed Wheat

Feed wheat price was set at approximately \$245 to \$250 per tonne depending on delivery point.

North Island Prices 1995/96:

(i) Milling Wheat

North Island contracts for milling wheat were \$315 to \$327 per tonne for 100 index quality depending on the mill and the delivery point.

Hodder and Tolley offer milling contracts for *Champion Flour Mills*. Index points, vary by variety and by protein levels. The higher the protein the higher the it scores.

Otane	\$315	100 index points
Domino	\$315	100 index points
Oroua	\$315	100 index points
Norseman	\$315	100 index points

(ii) Biscuit Wheat

Hodder and Tolley

Karamu	\$285	No indexing
Purple Wheats	\$330	No indexing
Monad	\$315	100 index points

(iii) Feed Wheat

Feed wheat prices are ranging from \$270 to \$290 per tonne.

(iv) Seed Wheat

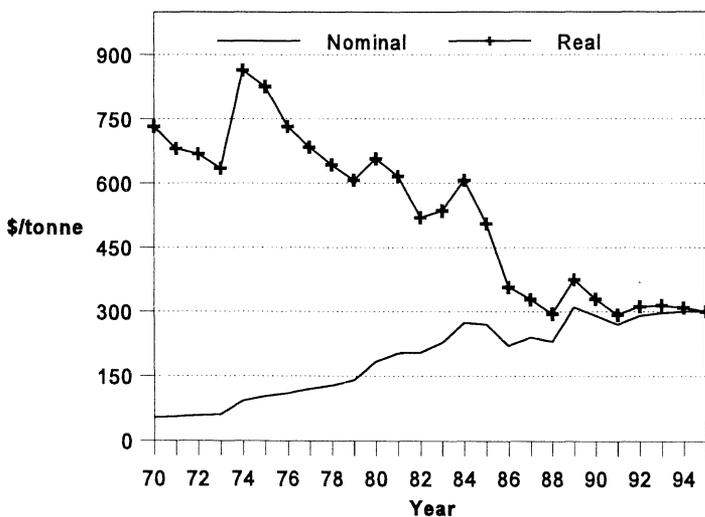
Seed crops will usually be based on milling or biscuit wheat contract prices with a premium of up to \$20 per tonne for 1st generation and \$25 for basic seed, if up to specification.

Hodder and Tolley offer North and South Island growers a Chicago Board of Trade Option with international price fluctuation benefits.

Wheat Price Trends:

New Zealand Milling Wheat Prices 1971 to 1995 (Harvest Years)

"Nominal" dollars is the contract price that was paid to South Island growers at harvest each year; "Real" dollars are based on the value of the \$NZ in December 1995 and are adjusted for inflation using C.P.I. figures, for each calendar year, as published by the Department of Statistics.



Source: Lincoln University

1.10.2 Barley

1995/96 Contract Prices:

Malting

The *Canterbury N.Z. Malting Company Ltd* contract price for No. 1 Grade Malting barley for the 1995/96 harvest was \$245 per tonne in the South Island (delivered Rakaia or Ashburton), and \$285 per tonne in the North Island (delivered Marton).

Penalties applied for barley with a screening percentage greater than 5%. (South Island 6 to 10% = \$1 per 1% per tonne. North Island 6 to 15% = \$1 per 1% per tonne). A storage increment is paid at the rate of \$7.40 (South Island) or \$8.50 (North Island) per tonne for delivery during the month of May and a further \$2.30 (South Island) or \$2.70 (North Island) per tonne per month thereafter to December. In the South Island Autumn sown barley prior to the 15th June attracts a \$15 per tonne premium. The Cropmark Malting pool for 1993/1994 realised \$205.00 per tonne.

Feed

South Island contracts for the 1996 harvest were expecting \$220 per tonne. North Island contracts ranged from \$225 to \$245 per tonne (1996 harvest).

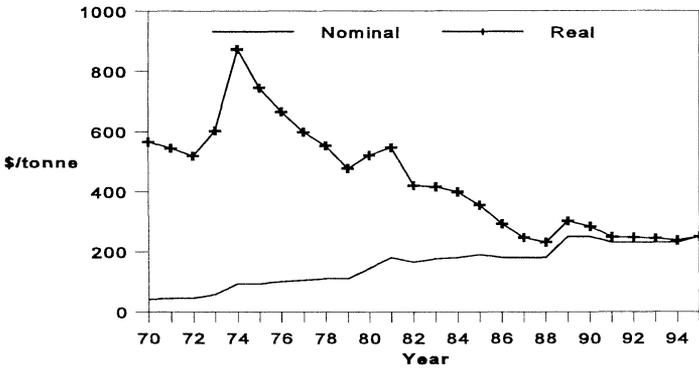
Seed

Contract price for seed barley in 1995/96 were the same as feed barley contracts plus a bonus of 7.5% on the machine dressed weight. Growers then pay storage -8c per day from the 1st of April.

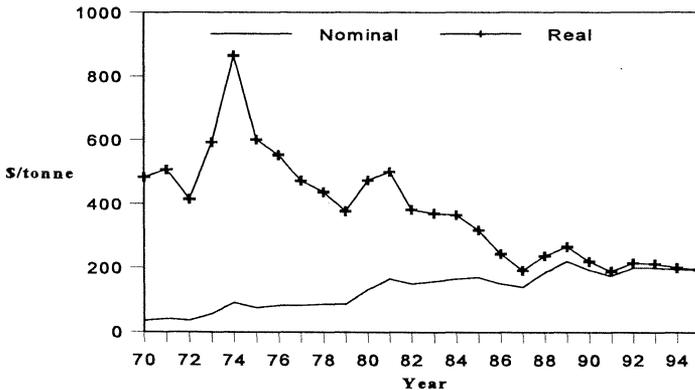
Barley Price Trends 1970 to 1995

In the following two graphs "Nominal" dollars is the contract price that was paid to South Island growers at harvest each year; "Real" dollars are based on the value of the \$NZ in December 1995 and are adjusted for inflation using C.P.I. figures, for each calendar year, as published by the Department of Statistics.

(i) N.Z. Malting Barley Prices 1971-1995 (Harvest Years):



(ii) N.Z. Feed Barley Prices 1971-1995 (Harvest Years):



Source: Lincoln University

1.10.3 Oats / Oaten Hay

South Island contracts for 1995/96 averaged \$280 per tonne compared with the 1994/95 average of \$220 per tonne (Canterbury) and \$200 per tonne Southland. (1993/94 - \$230/tonne, 1992/93 - \$215 to \$240 per tonne Canterbury).

There were few contracts available in the *Manawatu* for the 1995/96 season. 1994/95 prices were approximately \$245 to \$250 per tonne (\$10 to \$15 less than 1993/94 contracts).

1.10.4 Peas

Prices offered for peas in bulk grown under contract for the 1995/96 harvest were:

Field peas

Maples - \$315 per tonne field dressed (F.D.) but subject to No.1 grade and maximum dressing loss of 7.5% (Canterbury)

Prussian peas - \$320 per tonne (F.D.) subject to same conditions as above.

Marrowfat peas - \$550 for premium grade (<5% bleach)

- \$460 for No.1 grade (5 to 10% bleach)

- \$360 for Fair Average Quality (F.A.Q.) grade.(max. 20% bleach)

White Peas (subject to the same conditions as Maples)

- \$300 per tonne (F.D.) Canterbury

- \$280 per tonne (F.D.) Southland

- \$20 per tonne premium for 1st generation and \$25 for basic

Garden peas Canterbury:

Freezer Varieties - \$460 per tonne machine dressed (M.D.)

Onwards - \$510 per tonne machine dressed (M.D.)

Masseys/Alderman - \$530 per tonne machine dressed (M.D.)

Manawatu - \$460 per tonne (F.D.)

Freezer peas

(i) **Canterbury** - *Wattie Frozen Foods Ltd.* for the 1995/96 harvest.

Grade	Tenderometer Reading	Cleaned intake weight	
		1994/95	1995/96
1	Not over 95	372.90	374.80
2	95 to 100	339.40	341.10
3	100 to 105	306.80	308.30
4	105 to 110	275.30	276.70
5	110 to 115	263.80	265.10
6	115 to 120	247.40	248.60
7	120 to 130	229.10	230.20

Note: Freezer pea crops that are passed over are paid for at a previously agreed rate. Usually 65% of the fortnightly district average but subject to the conditions of the contract the farmer has the right to harvest and market the crop. Rejected crops, for whatever reason do not receive any payment from the Company. For crops planted after 25 October, an additional 0.5% premium was paid, per day (depending on tenderometer reading) to a maximum of 8% for crops planted on 10 November.

(ii) **South Canterbury - McCain Foods (NZ) Ltd.** (1995/96 harvest):

Grade	Tenderometer Reading	\$ per tonne packed weight
1	Not over 95	403.00
2	96 to 100	377.00
3	101 to 105	333.00
4	106 to 110	303.00
5	111 to 115	291.00
6	116 to 120	266.00
7	121 and over	248.00

Note: In addition to these basic prices there was an early and late sowing bonus paid per tonne. For early sowing from 1st August an extra payment of \$30 per day, on a reducing scale of \$1.00 per day from 6 August down to \$5 extra on 30 August. From late sowing from 1 November an extra payment of \$1.00 per day to 15 November, and then \$1.50 per day up to 6 December was paid.

(iii) **Other Regions**

Grade 5 prices for the 1995/96 harvest were announced by a number of Companies in various regions:

Grower Foods - Hawkes Bay, \$298 per tonne (cleaned weighbridge weight)

A company in Marlborough will be offering \$330 per tonne packed weight.

Watties Frozen Foods (Manawatu) \$273 per tonne, paid on total field weight (unless extraneous vegetable or foreign matter exceeds 4%)

1.10.5 Maize / Maize Silage

Maize: Fixed Price Contracts for 1995/96 varied by region:

Gisborne -\$250 to \$300 per tonne if grown for seed. Very little silage was made in the 1995/96 season;

Bay of Plenty 12c to 15c per kilogram of dry matter;

Waikato -\$2500 to \$2600 per hectare standing and up to \$3800 per hectare for excellent quality. Prices range from 12c to 18c per kilogram dry matter.

Maize Silage:

Waikato farmers growing maize silage for sale in 1994/95 were receiving \$2,500 to \$3,750 per ha standing or about 18 to 25 cents per kg DM.

1.10.6 Ryecorn

South Island: The price paid for ryecorn in the 1995/96 season was \$310 per tonne base price, compared to the price paid for ryecorn in the 1994/95 season which was \$320 per tonne field dressed and 100 index points quality. (1993/94 price was \$220 to \$315 per tonne M.D.)

1.10.7 Lentils

Farmers this year (95/96) could expect to receive a minimum of \$500 per tonne. No contracts were set for the 1994/95 harvest but 1993/94 contract prices ranged from \$550 to \$600 per tonne.

1.10.8 Triticale

The harvest price for triticale for 1995/96 is \$230 per tonne (Canterbury). The 1994/1995 price for triticale was \$210 per tonne (Canterbury) and \$275 per tonne (Manawatu) (*Hodder and Tolley*). 1992/93 prices ranged from \$200 to \$250 per tonne.

1.10.9 Lupins

Canterbury growers can expect \$380 per tonne for lupins in the 1995/96 harvest compared to \$350 to \$400 per tonne (free price) for lupins in the 1994/95 harvest (similar to 1993/94 prices).

1.10.10 Oilseed Rape

Southland growers can expect a minimum of \$500 per tonne delivered Invercargill for the 1995/96 harvest (\$490 per tonne 1994/95 and \$435 per tonne 1993/94). Elsewhere very few crops have been sown.

1.10.11 Linseed

Canterbury growers can expect to receive \$450 per tonne during the 1995/96 harvest. There were no contracts in 1994/95. Contracts price for linseed harvested in the 1993/94 season was \$385 per tonne (\$370 per tonne in 1992/93).

1.10.12 Evening Primrose

\$2.50 per kilogram is the expected price that farmers will receive during the 1995/96 harvest. The 1994/95 market was weak due to oversupply and the average price in 1993/94 was \$3.00 per kg (subject to quality). The 1992/93 price was \$3.50 per kg.

1.11 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 very variable and depend on the region and season. The following prices are for first generation certified seed paid to the grower, as at December 1995/January 1996 (information from Canterbury and Manawatu sources).

1.11.1 Pasture Grasses

Ryegrasses:

Proprietary ryegrasses (restricted breeders' rights):

Most have a guaranteed minimum of \$1.25 per kg but higher prices are likely to be paid for some lines, depending on cultivar and season.

Agriseeds lines (Verdette, Ellett, Yatsyn 1, Dobson and Impact) have a guaranteed minimum (as at December 1995) for the 1995/96 harvest of \$1.40 per kilogram for perennial and annual ryegrasses for 99% minimum purity, 90% germination and 0.05% maximum weed content. A minimum price of \$1.55 per kilogram is guaranteed for hybrid ryegrasses.

Agricom New Zealand Ltd. contract price for Greenstone (both "endosafe" and "endofree" varieties) is \$1.50 per kg in 1995/96 (same as 1994/95 and 1993/94).

Public ryegrasses :

	\$/kg
Nui, Ruanui (limited quantities)	1.35-1.50
Manawa	1.20-1.35
Moata	1.40-1.80
Tama	1.50

Others:

	\$/kg
Matua Prairie Grass	1.15
Advance Fescue	3.25
Kahu Timothy	4.00-5.00
Wana Cocksfoot	3.50
Maru Phalaris	5.00
Gala Brome	1.30
Kara Cocksfoot	3.50

1.11.2 Turf Species

	Canterbury \$/kg
Turf Ryegrasses 1995 harvest	1.60-1.70
Turf Fescues 1995 harvest	1.70-3.00
Browntop (all cultivars)	5.00-6.00
Yarrow	\$12.00

1.11.3 Legumes

\$/kg

Maku Lotus: 10.00-15.00

White Clover:

Proprietary lines (multiplication contracts) 4.50-5.50

Huia 3.50-3.75

Aran 5.50

Prop 4.25

Sustain 4.50

Prestige 4.50

Red Clover:

Pawera 8.50-10.00

Other cultivars 3.50-5.50

Lucerne:

Wairau 5.00-5.50

Oranga 5.00

Otaio 7.50

1.11.4 Chicory

Puna 5.50-6.50

1.11.5 Brassicas (Canterbury)

Rape (Rangi) 1.20-1.25

Kale 2.40-2.70

Turnips/Swedes 1.40-1.60

1.12 FRUIT PRODUCTION

Prices paid to growers for fruit 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 the subsequent effect on both availability and quality of fruit offered for sale. Both the location of property in relation to population centres, and the amount of produce that an individual producer provides over the course of a season influence prices received. Whether the produce is for local consumption or for export is another major influence.

1.12.1 Fruit Prices - Domestic Market

The following average monthly prices are taken from the Auckland City Markets (*Turners and Growers*) and should be read as trends and not finite quotations. All prices are in dollars and are quoted per pack size as follows:

Kiwifruit, lemons, mandarins, oranges, tamarillos - 15 kg crates

Avocados - bushel crates, 80 to 150 count

Hot house grapes - 5 kg cartons

Nectarine and Peaches - 10 kg lugs

Strawberries - 12 punnet trays

a) 1995 Fruit Prices - Auckland City Markets

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Avocados	38.31	32.79	42.4	41.53	48.05	84.26	93.92	61.36	57.56	38.66	41.76	24.21
H/H Grapes	54.96	35.86	25.7	26.89	29.39	25.26	31.57	49	-	-	37.77	42.95
Kiwifruit	4.5	13.96	58.51	28.23	11.19	5.8	5.7	7.2	27.2	8.21	9.12	8.66
Lemons	35.49	30.59	16.89	20.05	23.79	14.43	9.68	9.66	9.75	10.41	15.18	15.74
Mandarines	13.64	24.19	3.64	26.57	23.57	27.28	22.27	23.7	16.74	26.12	19.64	22.09
Nectarines	22.18	21.35	21.08	27	-	-	-	-	-	-	-	29.62
Oranges	16.19	17.06	15.19	17.81	13.21	10.83	16.26	22.78	20.41	20.12	21.44	20.61
Peaches	20.17	15.31	23.03	26.58	-	-	-	-	-	-	-	19.37
Strawberries	18.22	22.75	23.64	27.07	31.87	40.36	41.84	35.58	34.33	19.96	20.27	23.20
Tamarillos	-	-	-	29.57	22.44	15.89	14.46	17.27	15.82	22.44	31.60	23.24

b) 1994 Fruit Prices - Auckland City Markets

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Avocados	37.91	29.36	33.15	33.18	36.94	37.96	38.42	45.88	39.85	39.85	41.76	39.76
H/H Grapes	51.59	37.14	24.44	30.27	33.39	35.79	49.86	-	-	-	-	-
Kiwifruit	11.56	11.71	20.84	16.57	11.77	11.25	11.37	12.34	10.38	10.39	10.18	13.62
Lemons	18.99	20.84	17.40	14.36	12.43	12.46	11.47	11.10	13.11	20.86	19.11	21.72
Mandarins	14.12	16.00	20.25	19.68	31.85	27.24	25.42	28.52	25.80	33.38	32.33	26.06
Nectarines	22.55	15.10	14.14	13.29	-	-	-	-	-	-	-	-
Oranges	26.08	19.44	10.45	13.40	12.62	12.75	11.27	18.23	20.81	16.56	17.62	18.93
Peaches	15.60	-	19.8	36.23	-	-	-	-	-	-	-	-
Strawberries	15.37	14.79	28.06	28.10	37.28	35.27	50.08	48.64	38.09	25.50	18.10	18.73
Tamarillos	4.00	-	13.05	23.27	20.95	19.59	19.37	20.75	23.01	35.22	28.32	22.80

Source: *Turners and Growers*

c) 1993 Fruit Prices - Auckland Wholesale Market

All prices are rounded to the nearest dollar and are per case

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct
Avocados	39	33	35	42	50	43	85	65	53	50
G/H Grapes	61	36	31	30	29	39	47	-	-	-
Kiwifruit	8	7	8	13	7	5	6	8	8	10
Lemons	15	15	14	11	15	12	8	8	8	9
Oranges	13	13	13	13	16	18	14	13	13	12
Peaches	18	19	-	-	-	-	-	-	-	-
Strawberries	16	18	21	27	-	-	40	46	40	12
Tamarillos	-	-	-	-	36	27	20	13	10	29
Mandarins	-	-	-	22	35	26	29	33	22	28

Source: "Horticultural News" 1993 issues

1.12.2 Apples

Apples sold to N.Z. Apple and Pear Marketing Board

(i) Total Payment to Growers: (Fancy Average Payment)

Note 1: Figures are Class 1 export variety pools.

Note 2: A TCE weighs approximately 18.5 kg.

Variety	1995 Total \$/TCE	1994 Total \$/TCE	1993 Final \$/TCE	1992 Final \$/TCE
Braeburn	11.67	13.76	13.76	27.21
Coromandel Red	6.66	-	8.98	9.58
Cox's Orange Pippin	13.66	18.04	17.93	28.81
Democrat	-	9.64	4.08	7.82
Fiesta	5.32	15.25	17.24	18.04
Fuji	15.21	14.25	13.93	20.98
Gala	13.39	15.00	12.55	23.70
Golden Delicious	6.61	6.50	6.63	13.70
Granny Smith	5.49	8.10	4.64	9.76
Premier Red Delicious	-	-	4.86	8.96
Red Delicious	6.01	7.30	5.15	10.83
Red Dougherty	7.38	-	5.18	7.58
Regal	11.94	13.89	9.58	20.63
Regala	12.82	14.51	8.93	20.67
Royal Gala	17.18	17.30	17.07	26.22
Splendour	10.01	6.29	16.71	12.11
Sturmer Pippin	9.99	8.82	5.45	13.21

(ii) Advance Payment to Growers: 1995

The rates shown include allowance for packing costs and are indicative advance prices only as at January 1996. Final prices will be established in February 1996.

The advance rates have been established from previous year's actual returns, and the estimated 1995 returns.

A Capital Charge will be deducted from these advance payments. The Board determines the Capital Charge per TCE by

- Estimating the Board's Capital Expenditure requirements for the next five years.
- Deducting its likely level of net borrowing and depreciation for that period.
- Dividing the net result by the estimated crop that the Board will receive in the five year period.

The effect of using a five year period is to smooth out any unevenness in Annual Capital Expenditure. The Capital Charge is a deduction from the Board's profits.

Packing costs are per TCE (1995) and vary between different packhouses.

The Initial Export Payment generally represents about 50% of the forecasted Market Return.

New Zealand Apple and Pear Marketing Board 1995 Indicative Advance Prices (as at January 1996) \$ per T.C.E.

	<u>COUNT</u>											
	64	72	80	88	100	113	125	138	150	163	175	198
Braeburn	3.84*	5.55*	7.26	8.53	9.39	8.53	7.26	7.26	5.55	-	-	-
Coromandel Red	-	2.22	2.22	4.42	5.91	6.27	5.16	4.80	2.95	2.61	2.00	2.00
Cox's Orange	-	-	-	5.28	9.90	13.21	13.21	11.89	7.92	4.62	3.08	2.05
Feista	-	-	3.73	3.73	7.00	9.33	9.33	8.40	5.60	3.58	3.58	2.19
Fuji	3.78	4.73	8.51	9.94	10.88	9.94	8.51	7.10	4.73	3.31	3.31	3.31
Gala	-	14.35	14.35	14.35	14.35	8.30	5.92	5.33	3.55	3.55	2.36	2.30
Golden Delicious-	-	-	3.05	5.23	6.54	6.54	4.36	2.62	2.03	2.03	1.00	-
Granny Smith	1.99	1.99	4.64	5.97	5.97	5.97	5.30	3.32	2.65	1.99*	1.99	1.00
GS2085	6.17	6.17	10.27	10.27	10.27	7.19	7.19	7.19	5.14	5.61	2.41	2.41
GS330	4.56	4.56	7.79	7.79	7.79	7.79	5.98	5.45	3.64	3.12	1.00	1.00
Regal	-	5.71	5.71	5.71	5.71	5.71	5.71	5.71	5.71	4.08	2.86	1.00
Regala	-	11.31	11.31	11.31	11.31	6.54	4.67	4.20	2.80	2.80	2.00	2.00
Royal Gala	11.62	12.78	13.94	13.94	11.62	11.62	9.29	5.81	4.65	3.49	2.32	1.00
Sturmer Pippin	-	-	2.48	2.48	4.96	4.96	4.96	3.10	2.48	2.48	-	-
	64	70	80	90	100	113	125	138	150	163	175	198
	216											
Red Delicious	-	2.00	3.00	4.00	5.00	5.00	5.00	4.00	3.00	2.00	2.00	2.00
	2.00											
Red Dougherty	-	-	-	-	5.00	5.00	5.00	4.00	3.00	2.00	2.00	2.00
	2.00											

* *Restricted volume due to limited market opportunities*

(iii) **Processing/Standard/Reject** grade fruit price will be confirmed in February 1996 but 1995 payments were:

Processing/Standard/Reject (depending on the region)

- Fruit submitted ex Packhouses
 - Initial payment 5-7c per kg (\$50-70 per tonne)
 - Supplementary Payment 1c per kg (\$10 per tonne)
 - Total Payment 6-8c per kg (\$60-80 per tonne)
- Orchard-run Fruit other than Gala
 - Total Payment 6-10c per kg (\$60-100 per tonne)
- Orchard-run Gala payment 7-9c per kg (\$70-90 per tonne)

Apples for Processing

J.Wattie Foods (Hastings) 1995/96 prices are: All grades- \$140 per tonne (1st grade). Average of \$160 per tonne 1994/95, same as 1993/94.

1.12.3 Pears

Pears sold to N.Z. Apple and Pear Marketing Board

(i) **Total Payment to Growers: (Fancy Average Payment by variety)**

Note 1: 1993 figures are export/premium pool payments.

Note 2: A TCE weighs approximately 18.5 kg.

Variety	1995 Total \$/TCE	1994 Final \$/TCE	1993 Final \$/TCE	1992 Final \$/TCE
Beurre Bosc	11.59	12.92	12.55	19.59
Beurre Easter	-	-	-	19.92
Doyenne Du Comice	17.66	26.54	29.79	-
Louise Bonne De Jersey	-	-	-	10.26
P. Barry	-	-	-	16.57
Packham's Triumph	7.00	8.65	6.35	14.65
Taylor's Gold	22.47	-	-	-
Winter Cole	0.44	7.51	16.25	14.38
Winter Nelis	2.53	7.66	13.21	14.29

(ii) **Advance Payment to Growers: 1995**

The rates shown are indicative advance prices as at January 1996. They include allowance for packing costs and materials. Final prices will be established in February 1996.

The advance prices have been established from previous year's actual, and the estimated 1996 returns.

The capital charge will be deducted from these advance payments.

New Zealand Apple and Pear Marketing Board 1996 Indicative Advance Prices, (as at January 1996) \$ per T.C.E.

	COUNT									
	64	72	80	90	100	110	120	130	140	150
Buerre Bosc	11.13*	11.13	11.13	11.13	11.13	6.96	6.96	4.18	4.18	4.18
Packhams Triumph	5.36*	5.35	5.50	5.50	6.11	6.11	5.35	3.78	2.52	1.00
Winter Cole	-	-	2.74	4.56	6.38	6.38	5.47	1.50	-	-
Winter Nelis	-	-	2.88	4.32	5.76	5.76	5.04	2.88	-	-

	COUNT										
	12	14	16	18	20	23	25	28	30	33	35
Doyenne Du Comice/ Taylor's Gold	3.26	3.51	3.51	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26

	COUNT			
	54	60	66	72
Doyenne Du Comice/ Taylor's Gold	7.25	7.25	7.25	7.25

* Restricted Volume

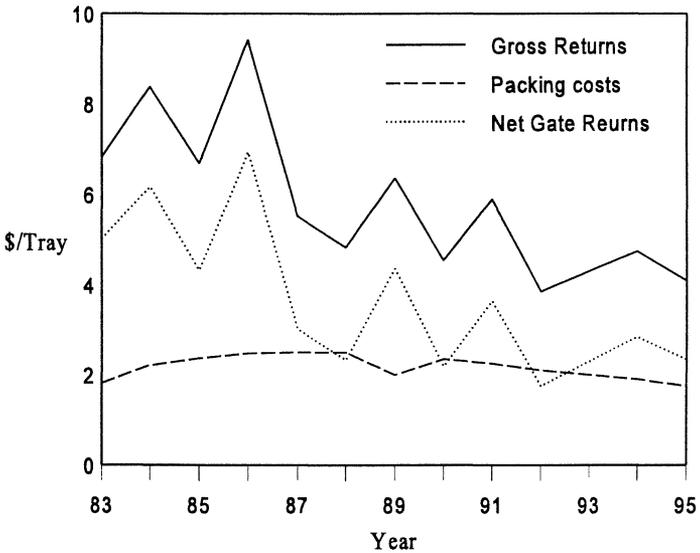
Process Pears

J. Wattie Foods (Hastings) 1995/96 payout for processing quality pears is \$355 per tonne.

1994/95		\$375 per tonne
		\$375 per tonne
1992/93	● 1st grade	\$30 per tonne
	● 2nd grade	\$158 per tonne

1.12.4 Kiwifruit

Export Returns to Grower 1983 to 1995



1995 figures are forecasts as at December 1995.

Note: Tray = 3.5 kg

Net Gate Return is to Grower per Tray

(Net Gate Return is Gross Return less Packing Cost and Levy)

	1992	1993	1994	1995	1996(E)
Gross Returns	\$3.85	\$4.30	\$4.74	\$4.90	\$4.09
Packing & Packaging	\$2.10	\$2.00	\$1.90	\$1.90	\$1.75
Orchard Gate Returns	\$1.75	\$2.30	\$2.84	\$3.00	\$2.34

E = Estimate

Source: Kiwifruit Marketing Board

Net Orchard Return Per Planted Hectare:

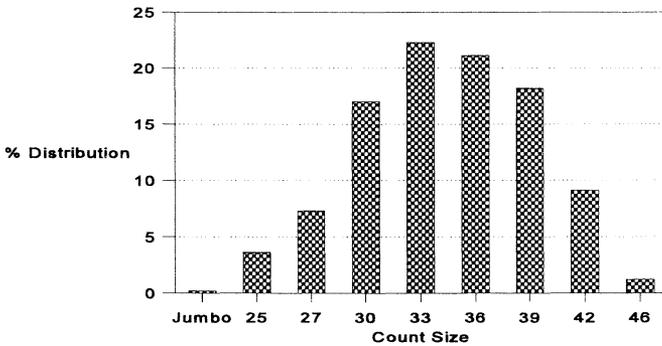
1986	1987	1988	1989	1990
\$12,985	\$8,952	\$7,532	\$13,191	\$10,034
1991	1992	1993	1994	1995(E)
\$14,532	\$8,047	\$15,312	\$18,210	\$14,160

Source: Kiwifruit Marketing Board

'Ideal' Production for 1996:

A balanced approach to production and not an over-emphasis on either large or small fruit is required for the new season to obtain the ideal crop characteristics.

Ideal Production for 1996



Note: Essential points of the 1996 payments policy are:-

- The NZKFMB will establish the weighted average per tray equivalent return to grower from market realisations
- Payment for count 33 will be 1.05 x weighted average.
- Payment for count 36 will be 1.00 x weighted average.
- Payment for other fruit sizes will be determined by the profile of the 1996 crop and market realisations.

Source: Kiwifruit Marketing Board

Progress Payments for 1995:

The pattern of 1995 progress payments was as follows:

Harvest	Month	cents / tray
	April to June	70c
	July	18c
	August	18c
	September	18c
	October	19c
	November 1	24c
	December	35c
	January	30c
	January to June	Balance

Initial Payment for 1996

As at December 1995, the initial payment to growers for fruit submitted to coolstores had yet to be decided. It was expected to be in the region of \$2.25. However, \$1.50 of this (yet to be confirmed) will be paid directly to packhouses on behalf of growers. It is anticipated that monthly progress payments will begin in July 1996.

Source: Kiwifruit Marketing Board

Process Kiwifruit

Grower Foods Ltd. 1996 prices are predicted to be 8c per kilogram delivered to the packhouse. Prices are unchanged from 1994 and 1995.

1.12.5 Stone Fruit - (See also Section 1.11.1 for auction prices)**Process Stone Fruit:**

Grower Foods Ltd had no contracts for the 1995/96 season for any stone fruit ie. Apricots and Plums.

Apricots: Price paid to growers for processing was \$0.90 per kg in 1993/4 but no contracts were available in 1994/95.

Plums: 1995/96 payout prices have remained the same from 1994/95

Dessert (Black Doris and Omega)

\$1000 per tonne (Average), (\$700 1993/94, \$600 1992/93)

Jam (Billington and Sultan)

\$700 per tonne (\$700 1994/95, 1993/94, \$600 1992/93)

(*J. Wattie Foods Ltd.* - Hastings)

Billington \$0.85 per kg, (\$0.70 1993/94, \$0.50 1992/93)

Black Doris \$0.85 per kg (\$0.70 1993/94, \$0.65 1992/93)

Omega \$0.85 per kg

(*Grower Foods Ltd.* - Hastings)

Peaches: 1995/96 prices are \$560 per tonne.

1994/95

-1st grade \$560 per tonne (\$560 1993/94, \$555 1992)

-2nd grade \$350 per tonne (\$350 1993/94 and 1992/93)

(*J.Wattie Foods Ltd.*)

Nectarines:1995/96 payouts for all grades - \$640 per tonne

1994/95 payouts for all grades-\$650 per tonne, (\$650 1993/94.)

(*J.Wattie Foods Ltd.*)

1.12.6 Berryfruit

Processing 1995/96

J.Wattie Foods Ltd - Hastings:

Strawberries \$2300 per tonne (\$2300 1994/95, \$2300 1993/94)

Boysenberries \$2300 per tonne (\$2300 1994/95, \$2300 1993/94)

Raspberries \$3300 per tonne (\$3300 1994/95, \$3110 1993/94)

Grower Foods Ltd - Hastings:

Strawberries \$2.80 per kg (fresh) (\$2.50 1994/95, \$2.45 1993/94)

Boysenberries \$2.30 per kg (fresh) (\$2.30 1994/95, \$2.30 1993/94)

Blackberries \$2.60 per kg (frozen) (\$2.85 1994/95, \$2.65 1993/94)

Blueberries \$2.70 per kg (frozen) (\$2.90 1994/95, \$3.00 1993/94)

Note: Fresh prices delivered to factory.

Frozen prices delivered to cold store.

1.12.7 Feijoa

Domestic market

The average return for exports in 1995 was between \$5.00 and \$6.00. A typical tray weight is 2.8kg. In January 1996 the mid season gross returns (2% levy to be deducted) for Feijoas ranged from 20 cents/kg for small fruit (55g to 70 g) to \$2.50/kg for larger good quality fruit (90 g or over). Good quality is defined by NZFGA as touch picked, coolstored and with very minor defects.

Export market (total exports approximately 12,000 trays)

Mid season prices, f.o.b., are commonly \$13/tray (USA and Australian markets).

Tray weights are approximately

Large (90 g plus) 2.9 to 3.5 kg/tray

Medium (70 to 90 g) 2.4 to 2.8 kg/tray

Small (55 to 70 g) 2.3 kg/tray

1.12.8 - Grapes
 (Auction prices - See Section 1.12.1)
Bulk Grapes for Wine Production
 The figures are from the Wine Institute of New Zealand's annual vintage survey and therefore do not include all grapes purchased.

1995 Vintage Average Grape Price (\$ per tonne)

	Auckland	Waikato	Gisborne	Hawkes Bay	Wellington	Marlborough	Nelson	Canterbury	Varietal	Average
Muller Thurgau	-	539.96	518.76	545.81	-	476.53	-	-	600.00	513.04
Chardonnay:table	1,093.69	1,465.23	1,452.66	1,510.90	2,057.18	1,335.49	1,409.29	1,261.24	1,261.24	1,424.49
Chardonnay:sparkling	-	-	-	1,541.02	-	1,519.47	-	900.00	900.00	1,523.24
Sauvignon Blanc	672.56	1,158.70	1,077.76	1,412.55	1,557.14	1,200.44	1,300.00	1,528.80	1,528.80	1,228.57
Chenin Blanc	800.00	742.26	654.18	683.68	-	618.15	-	-	-	669.14
Gewurztraminer	951.71	-	712.05	1,034.83	-	955.86	-	1,200.00	1,200.00	892.35
Palomino	543.79	-	491.06	549.75	-	-	-	-	-	522.94
Riesling	-	850.26	638.84	852.94	1,344.43	866.30	804.89	813.90	813.90	834.97
Muscat Varieties	-	-	539.96	578.66	-	-	-	-	-	548.84
Semillon	914.09	-	1,042.37	861.04	-	1,104.34	-	-	-	1,054.85
Chasselas	-	-	494.52	543.85	-	-	400.00	-	-	509.04
Sylvaner	-	539.98	524.04	476.26	-	-	-	-	-	500.11
Other white varieties	-	539.97	555.26	648.51	-	1,300.00	1,117.81	-	618.94	576.16
Cabernet Sauvignon	1,507.55	1,187.55	1,138.98	1,499.03	1,818.18	982.65	-	1,498.16	1,498.16	1,327.14
Pinot Noir:table	1,300.00	1,151.72	1,450.00	1,172.57	1,945.31	1,368.25	-	1,222.88	1,222.88	1,474.18
Pinot Noir:sparkling	1,072.00	-	895.25	905.42	1,900.00	1,047.80	-	1,100.00	1,100.00	968.16
Pinotage	1,477.00	-	792.13	-	-	882.00	-	-	-	868.75
Merlot	-	780.00	1,405.62	1,517.36	2,000.00	1,439.41	-	1,500.00	1,500.00	1,480.42
Cabernet Franc	1,400.00	-	1,274.50	1,673.66	2,000.00	1,212.46	-	1,500.22	1,500.22	1,425.60
Other Black Varieties	750.00	871.47	-	1,670.87	2,000.00	1,303.39	-	-	-	1,256.74
All White Hybrids	-	-	519.67	542.11	-	-	-	-	-	530.08
All Black Hybrids	649.85	-	600.00	550.00	-	400.00	400.00	-	-	568.53
Regional Average	817.86	1,001.87	741.23	993.92	1,851.84	982.74	1,044.93	1,166.51	1,166.51	887.32

Source: Wine Institute Of New Zealand

1.13 VEGETABLE PRODUCTION

1.13.1 Vegetable Prices (Auction)

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 for a large range of vegetables in the four main centres of Auckland, Palmerston North, Wellington, Christchurch are usually available in the local newspapers. Auckland wholesale prices are published monthly in "Horticulture News". The figures quoted below should be taken as a guide only. They encompass more than one size of container in some products, so will be misleading if used as finite references for values.

a) 1995 Vegetable Prices - Auckland Wholesale Market

Note: prices are \$ per case (buttercup, celery, kumara, pumpkin)
 \$ per bag (carrots, onion, potatoes)
 \$ per crate (cabbage, cauliflower, lettuce)
 \$ per carton (tomatoes)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
Potatoes	10.60	12.34	10.71	10.00	9.00	9.00	8.61	7.78	7.43	9.83
Tomatoes	16.43	13.28	17.26	15.71	25.51	27.62	22.58	39.99	33.33	18.97
Lettuce	5.33	7.93	9.49	17.48	20.85	15.04	18.06	17.36	15.30	4.51
Carrots	16.69	15.76	9.76	8.90	8.66	8.21	8.16	4.85	6.10	10.64
Cabbage	4.43	4.38	5.77	7.83	10.89	9.32	9.68	10.01	10.56	8.07
Cauliflower	12.05	11.71	15.39	14.65	18.23	15.46	12.77	6.03	7.56	8.66
Mushrooms	13.23	13.80	13.43	14.31	15.16	14.69	14.83	15.81	15.64	18.06
Broccoli	13.58	13.58	18.90	18.97	30.93	21.43	20.06	20.21	20.83	11.20
Onions	13.70	14.62	12.40	12.28	12.76	11.99	9.94	12.10	14.22	11.96
Celery	14.57	12.67	9.62	9.78	13.98	12.83	13.87	24.59	20.73	23.48
Kumeras	26.18	23.56	17.03	21.06	26.48	30.18	30.15	36.85	30.22	32.69
Chinese Cabbage	6.87	8.23	8.06	8.23	8.65	8.04	11.81	14.59	8.54	21.07
Cucumber short	14.01	12.07	9.76	12.72	20.11	27.56	28.68	27.87	27.24	14.18
Cucumber tele	22.96	19.32	17.40	27.07	31.11	29.44	38.92	26.27	27.56	15.58
Lettuce Fancy	9.24	10.75	11.60	14.69	16.74	15.68	18.98	15.28	14.47	-
Courgettes	13.33	11.18	11.02	7.96	19.25	23.91	30.77	24.85	24.01	19.28
Capsicum	16.66	8.93	13.90	13.58	15.52	31.39	21.27	31.42	33.13	35.24

Source: "Horticulture News" January 1996

b) 1994 Vegetable Prices - Auckland Wholesale Market

	April	May	June	July	Aug	Sept	Oct	Nov
Potatoes	4.89	4.80	5.53	6.02	6.73	6.40	6.18	6.03
Tomatoes	10.52	18.90	22.19	23.69	26.25	26.93	24.97	14.67
Lettuce	15.27	12.70	14.46	22.56	21.06	11.93	17.29	16.94
Carrots	5.88	6.85	7.41	8.12	8.12	8.49	12.32	15.12
Cabbage	15.62	8.68	10.28	14.38	10.21	10.33	13.50	7.17
Cauliflower	12.08	9.11	10.61	9.50	7.46	10.94	17.42	7.42
Mushrooms	16.16	14.85	15.05	14.95	16.84	16.78	16.22	15.15
Broccoli	19.77	13.87	16.06	23.31	13.30	19.35	26.35	15.98
Onions	9.02	8.79	8.76	9.25	9.70	9.88	10.53	9.80
Celery	12.19	9.85	11.58	12.78	14.73	12.76	12.52	25.07
Kumeras	11.29	11.23	13.72	14.75	15.87	17.80	18.43	26.32
Chinese Cabbage	4.90	4.48	5.64	8.83	7.50	8.41	9.96	8.09
Cucumber short	15.51	18.83	25.61	26.16	26.88	25.08	19.73	13.86
Cucumber tele	17.85	24.16	34.38	39.87	28.96	32.24	26.18	18.56
Lettuce Fancy	9.04	12.28	11.96	14.51	14.53	13.12	12.62	13.33
Courgettes	13.48	35.09	24.39	30.11	30.72	28.51	25.27	15.23
Capsicum	7.86	13.53	33.11	58.03	74.27	74.04	61.67	29.89

Source: "Horticulture News" January 1995

c) 1993 Vegetable Prices - Auckland Wholesale Market

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct
Buttercup	9.80	3.90	4.60	4.80	7.00	9.65	13.10	0.00	-	-
Cabbage	5.30	6.00	4.85	2.85	3.30	3.50	4.70	5.55	6.20	6.30
Carrots	14.60	6.80	5.35	4.75	4.00	4.55	4.65	4.50	6.35	5.90
Cauliflower	8.90	6.55	4.70	4.55	3.70	3.85	5.10	8.40	7.55	6.80
Celery	9.50	6.00	4.80	5.60	3.45	4.05	5.15	7.55	7.80	8.35
Kumara	21.40	20.15	10.95	9.95	9.45	10.65	13.50	13.00	11.05	10.15
Lettuce	7.65	6.50	6.90	4.55	6.55	6.85	12.50	6.60	5.10	5.30
Onions	7.45	6.90	7.45	8.75	11.30	12.75	16.55	16.60	21.05	25.40
Potatoes	6.45	5.80	6.20	6.70	6.45	6.00	6.05	7.20	12.50	7.20
Pumpkin	16.10	11.40	8.10	8.40	9.55	10.00	9.75	10.00	9.60	8.35
Silverbeet	6.70	7.40	5.65	4.75	4.90	-	9.20	8.15	7.60	7.50
Tomatoes	13.40	10.45	9.15	10.25	6.85	10.05	11.35	15.75	21.75	23.05

Source: "Horticulture News" 1993 issues

1.13.2 Vegetable Prices (Process)

Asparagus

(i) 1995/96 harvest price for Hawkes Bay (*J. Wattie Foods*):

1st grade	\$2300 per tonne	(\$2400 1994/95, \$2400 1993/94)
2nd grade	\$1000 per tonne	(\$1600 1994/95, \$1600 1993/94)

(ii) 1995/96 harvest prices for Hawkes Bay (*Grower Foods Ltd.*)

First Grade	\$2.02 per kg	(\$2.40 1995/96, \$2.42 1993/94, \$2.20 1992/93)
Second Grade	\$1.35 per kg	(\$1.65 1995/96, \$1.65 1993/94, \$1.15 1992/93)
(Average 95% 1st Grade; 5% 2nd Grade)		

Beans

(i) Beans (green and yellow) grown for process freezing in Canterbury are paid for as follows (*Watties Frozen Foods Ltd*)

Grade	Average Seed Length	\$ per tonne			
		1995/96	1994/95	1993/94	1992/93
1	Less than 9mm	360	360	360	340
2	over 9mm, not over 9.5mm	347	347	347	327
3	over 9.5mm, not over 10mm	336	336	336	317
4	over 10mm, not over 10.5mm	326	326	326	308
5	over 10.5mm, not over 11mm	318	318	318	300
6	over 11mm, not over 11.5mm	310	310	310	292
7	over 11.5mm, not over 12mm	303	303	303	286
8	over 12mm, not over 12.5mm	298	298	298	281
9	over 12.5mm, not over 13mm	295	295	295	278
10	over 13mm	293	293	293	276

Note: Payment is based on weight after processing and freezing or in fresh green state before the dehydration process. Seed cost of \$6.36/kg is deducted.

Hawkes Bay (*Growers Foods Ltd*):

1995/96	Green Beans Grade 1 to 4 range from \$258 to \$308 (average \$281)	
	Grower pays for seed.	
	Baby Beans	
	under 8 mm	\$349/tonne
	8-10 mm	\$308/tonne
	10.1-11 mm	\$289/tonne
	over 11 mm	\$270/tonne

1994/95 Green Beans Grade 1 to 4 range from \$266 to \$318 (Average - \$300)
 Grower pays for seed.

Baby Beans	under 8 mm	\$360/tonne
	8 - 10 mm	\$318/tonne
	10.1 - 11 mm	\$298/tonne
	over 11 mm	\$279/tonne

(ii) Whole Beans in Canterbury (*Watties Frozen Foods Ltd*):

Grade	Average Seed Length	\$ per tonne		
		<u>1995/96</u>	<u>1994/95</u>	<u>1993/94</u>
1	less than 7.5mm	526	526	526
2	over 7.5mm not over 8mm	509	509	509
3	over 8mm, not over 8.5mm	491	491	491
4	over 8.5mm, not over 9mm	473	473	473
5	over 9mm, not over 9.5mm	456	456	456
6	over 9.5mm, not over 10mm	438	438	438
7	over 10mm	422	422	422

Note: Payment is based on weight after processing and freezing or in fresh green state before the dehydration process.

(iii) Broad Beans - Canterbury 1995/96 (*Watties Frozen Foods Ltd*)
 \$476 per tonne for grey or green seeded varieties based on cleaned intake weight.
 (Previous season's price - \$476 per tonne.)

(iv) Navy Beans \$1100 per tonne (Hastings) in 1995/96, same as in 1994/95. (*J. Wattie Foods Ltd.*)

(v) Italian Beans \$307 per tonne packed weight for 1995/96 in Canterbury (*Watties Frozen Foods Ltd.*). Prices remain unchanged from 1994/95.

Beetroot

1995/96 delivered to the factory price:
 \$140 per tonne in Hastings (*J. Wattie Foods Ltd.*) (\$140 1994/95, 1993/94).
Grower Foods Ltd have paid \$125 per tonne for the last two seasons and this will remain unchanged for the 1995/96.

Broccoli

1995/96 price for broccoli (Manawatu) is \$800 per tonne (\$800 in 1993/94 and 1994/95).

Carrots

1995/96 prices (\$ per tonne)

Manawatu \$89.00 per tonne (same as 1994/95)

Canterbury (*Watties Frozen Foods Ltd*)

\$84.50 per tonne bulk.

Baby carrots \$400 per tonne based on factory packed weights to \$120 per tonne field weight.

Hawkes Bay

Grower Foods Ltd

Dicing: ●grade 1 (less than 500gms) \$97 1995/96 (\$100 1994/95)

●grade 2 (more than 500gms) \$90 1995/96 (\$90 1994/95)

J.Wattie Foods Ltd

Dicing: \$95 per tonne 1995/96 (\$95 1994/95)

Note: For auction prices see *Section 1.12.1*

Cauliflower

Cauliflower grown for process freezing in 1995/96 is \$490 per tonne field weight (Manawatu). (\$490 1994/95, \$450 1993/94).

For auction prices see *Section 1.13.1*

Celery

\$450 per tonne Hastings - 1995/96, same as 1994/95 prices. (*J.Wattie Foods Ltd.*)

For auction prices see *Section 1.13.1*

Garlic

The price varies tremendously throughout the season, depending on the demand and market. No prices have been obtainable for 1994/95 or 1995/96. The average prices for 1993/94 range from \$3 to \$5 per kg for export, to \$3 to \$6 per kg for local market sales. Average price paid in the 1992 season was \$2.60 per kg (\$2.80 in 1991).

Onions

The price for onions varies a lot during the year depending on supply and demand. Prices as at January 1996 for table onions are \$900 per tonne, jumbos, \$990 to \$1125 per tonne and choppers, \$360 to \$540 per tonne.

Peas

See *Section 1.10.4*

Peppers

\$700 per tonne Hastings - 1995/96 (*J.Wattie Foods Ltd.*), (\$700 1994/95, \$650 1993/94)

Potatoes

(For market prices see *Sections 1.13.1 and 1.13.3*)

Watties Frozen Foods are offering \$189.55 per tonne for potatoes for the 1995/96 season compared to \$188.55 paid in 1994/95.

McCains Foods (NZ) Ltd

Contract prices of \$180 per tonne for processing (french fries).

Manawatu \$220/tonne field weight (\$212/tonne 1993/94)

Pumpkin

\$70 per tonne in Hastings for 1995/96 (*J.Wattie Foods Ltd.*)

(\$100 per tonne 1994/95, \$150 per tonne 1993/94)

(For auction prices see *Section 1.13.1*)

Sweet Corn

1995/96 prices were

\$148.00 per tonne Canterbury (*McCains Foods (NZ) Ltd*)

\$118.00 per tonne Manawatu (\$125 1994/95)

\$152.50 per tonne Hawkes Bay (*J.Wattie Foods Ltd.*)

Grower Foods Ltd will pay \$128.80 for the 1995/96 harvest. \$140 per tonne was paid during the 1994/95 season. This excludes harvesting and delivery to the factory.

Note: Price includes harvesting and delivery to the factory.

Tomatoes (1995/96)

\$140 per tonne delivered Hastings (*J.Wattie Foods Ltd*), unchanged from 1994/95. (\$147 1993/94, \$137 1992/93)

Grower Foods Ltd are not processing tomatoes in 1995/96. \$120 per tonne net to grower (Processor pays for harvest and freight equivalent to \$37.50 per tonne) was paid for the 1994/95 harvest. (\$115 per tonne 1993/94).

For auction prices see *Section 1.13.1*

Zucchini:

\$525 per tonne (Manawatu) for 1995/96 which is unchanged from 1994/95 and 1993/94.

1.13.3 Main Crop Potatoes

In the 1995/96 growing season all potato growing areas were affected by adverse weather conditions. The result is a nationwide shortage of table potatoes and rising prices to satisfy demand. These circumstances make it very difficult to predict prices with any confidence for the 1995/96 year.

Manawatu:

1996 \$300 per tonne.

1995 prices ranged from \$250 to \$300 per tonne.

1994 Market prices for potatoes in this region ranged from \$100 to \$220 per tonne due to high yields and surplus supply.

Canterbury:

Seed costs were up last year therefore overall cost was increased and so the total area planted was down. Therefore potato prices will be \$400-\$500 per tonne and possibly higher.

Southland:

Southland prices are similar to Canterbury, with any major differences being due to freight charges. Main crop potatoes for the 1995/96 season are expected to sell for \$300 to \$500 per tonne.

1.13.4 Kabocha (Buttercup Squash)**North Island:**

For the 1995/96 season Kabocha contracts are expected to range from \$0.15 to \$0.45 per kilogram and it is predicted that the 1995/96 harvest will be close to 80,000kg. There were no North Island contract prices for kabocha for the 1994/95 year. Prices are volatile in relation to supply and demand. In 1994, 95,000 tonnes were grown with a price range of 15 to 40 cents per kg. The prediction for the 1995 was an estimated 55,000 tonnes production is a price range of 50 cents to \$1.50 per kg. One December 1994 sale has been recorded at \$1.60 per kg. The actual 1995 harvest was 70,000kg.

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.

Source: Growcorp Pacific

Squash for processing:

Canterbury (*Watties Frozen Foods*). No contracts were available for either the 1995/96 or 1994/95 season.

1995 Auction Prices - Auckland (United Flower Auctions Ltd):

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

	Jan/Feb	Feb/Mar	Mar/Apr	Apr/May	May/June	June/July	July/Aug	Aug/Sept	Sept/Oct	Oct/Nov
Carnations:										
-Spray (per 10)	1.86-2.81	1.56-2.60	2.48-3.89	3.34-3.99	4.53-5.99	5.27-6.25	6.08-7.18	4.88-6.40	2.34-4.70	1.95-3.62
-Standard (per 10)	1.43-2.25	2.34-3.42	3.44-4.20	3.59-5.03	4.95-6.13	-	-	-	2.35-3.89	2.68-4.20
Chrysanthemums (per 5)	3.14-4.32	3.20-4.47	3.61-5.22	2.39-4.20	3.69-8.09	3.71-7.75	5.93-10.60	4.21-9.59	4.56	3.22-4.84
Rose (per 10)	3.32-6.82	3.01-6.02	2.23-6.57	3.63-6.80	4.53-10.29	5.70-11.20	7.89-13.52	6.41-12.61	5.89-11.44	3.12-7.04
Agapanthus (per 5)	-	-	-	2.23	3.02	2.99	3.05	2.68	2.02	1.94
Ageratum (per 5)	1.83	-	2.64	2.86	3.13	3.20	4.13	2.78	2.01	1.87
Alstromeria (per 5/10)	2.11-2.36	2.31-2.69	2.67-2.94	2.52-3.29	3.65-4.39	4.09-4.53	5.02-5.42	-	1.85-2.51	1.68
Anemone (per 10)	-	-	1.97-3.08	2.41-2.55	2.43-2.80	2.18-2.61	2.35-2.61	1.57-1.84	1.45-1.74	1.52
Daffodil (per 10)	-	-	-	-	1.02-2.12	0.90-2.78	1.54-2.95	1.05-1.34	-	-
Delphinium (per bunch)	2.87-3.23	3.14-3.84	2.45-3.15	4.34-5.10	4.70-5.97	5.20-5.67	5.54-6.27	4.45-6.13	2.98-7.17	1.69-3.83
Freesia (per 10)	1.96	-	-	3.99-4.48	4.19-4.80	4.18-5.30	3.57-4.62	1.09-2.34	1.45-1.71	1.58-2.60
Gerbera (per 5)	3.03-5.51	3.71-5.72	4.22-6.16	4.13-6.68	4.70-6.53	5.39-7.16	5.80-7.38	5.06-6.79	3.78-5.99	2.59-4.55
Gypsophila (per bunch)	-	3.12-3.39	5.13	2.76-2.90	4.30-4.38	12.85-13.42	10.49-12.98	7.89-8.86	6.03-6.29	5.25
Iris (per 5)	3.99	1.61-3.40	2.28-2.88	3.02-4.39	4.26-4.77	4.36-4.85	4.96-6.30	2.16-4.64	1.94-2.54	2.69
Lily (per 5)	2.72-5.66	3.89-6.30	3.43-10.94	3.07-4.51	4.21-12.02	5.09-7.11	4.51-7.33	2.77-8.05	3.22-4.69	3.81-6.20
Ranunula (per bunch)	-	-	3.31	2.12-4.90	4.28-5.09	-	-	2.63-3.91	2.18	1.58-2.80
Snap Dragon (per 5)	1.46-1.66	1.52-2.08	2.23-2.91	2.78-4.11	3.73-5.10	4.08-5.12	5.56-6.36	3.02-3.69	1.71-2.44	2.23-3.09
Statice (bunch)	3.13-3.36	3.45	3.34-3.96	2.80-5.10	3.50-3.82	8.68-8.97	4.93-7.01	5.02-5.38	3.17-4.47	1.75-4.33
Stock Double (per 5)	1.90-2.32	-	4.07-5.11	4.07-4.47	3.89-6.35	4.33-6.85	6.09-7.90	2.56-4.05	2.11-3.06	2.89-3.89
Tulip (per 5)	1.75	2.82-4.01	2.89-4.10	3.75-4.13	3.97-4.87	3.64-3.89	3.25-4.42	2.53-4.53	2.34-2.55	1.41-2.54

Source: "Horticulture News" 1995 issues

1994 Prices:

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

	Jan/Feb	Feb/Mar	Mar/Apr	Apr/May	May/June	June/July	July/Aug	Aug/Sept	Sept/Oct	Oct/Nov
Carnations:										
- Spray (per 10)	1.33-1.98	2.52-3.23	4.19-5.34	3.61-4.77	4.51-5.13	5.55-6.20	4.55-5.46	3.70-4.90	3.32-4.31	1.21-1.67
- Standard (per 10)	1.56-1.81	2.66-3.65	3.45-4.95	2.82-4.46	4.20-6.30	5.13-5.93	5.97-7.30	4.53-5.52	3.56-4.14	1.26-1.80
Chrysanthemums (per 5)	3.67-4.98	3.15-4.87	4.47-5.92	4.80-5.30	4.58-6.26	5.74-6.81	6.21-8.59	6.15-9.34	4.69-8.52	3.29-5.68
Rose (per 10)	2.99-6.92	3.23-8.93	2.96-7.67	3.90-8.60	3.88-10.24	6.74-12.82	7.64-13.49	9.04-15.18	6.04-13.91	3.13-8.20
Agapanthus (per 5)	-	-	-	-	-	-	2.94	2.89	2.93	-
Ageratum (per 5)	-	-	2.64	-	4.07	4.27	4.83	4.27	4.21	2.30
Alstromeria (per 5/10)	-	2.39-2.96	-	-	3.76-4.26	-	-	-	-	-
Anemone (per 10)	-	-	-	-	2.53-2.59	2.71-3.27	3.13-3.85	2.21-2.52	-	-
Daffodil (per 10)	-	-	-	-	-	2.43-4.11	1.62-2.25	1.03-1.49	1.64-1.96	-
Delphinium (per bunch)	-	3.63-4.53	-	5.40-6.90	4.18-5.09	-	-	-	-	-
Freesia (per 10)	-	-	-	4.26-4.80	4.07-4.52	4.53-4.85	3.13-3.49	2.03-2.57	1.64-2.37	-
Gerbera (per 5)	1.51-2.94	1.99-3.16	3.47-4.39	3.96-4.57	4.20-4.97	3.40-5.70	3.43-5.00	2.10-5.10	3.79-4.68	3.90-6.04
Gypsophila (per bunch)	1.69-1.73	3.82-4.42	5.86-6.31	3.78	7.06	9.38	8.18	7.84	9.74	1.71-2.04
Iris (per 5)	2.23	4.40	3.51-3.96	3.90-5.43	3.84-5.38	5.89-6.58	5.20-5.22	2.45-2.98	2.36-3.06	2.82-3.84
Lily (per 5)	2.20-3.35	1.86-3.98	4.36-5.85	4.22-6.41	3.42-4.82	5.16-7.54	6.24-9.13	5.82-6.83	4.20-6.10	1.96-4.75
Ranuncula (per bunch)	-	-	-	-	-	4.19-5.35	4.60-5.14	3.27-3.85	-	-
Snap Dragon (per 5)	1.43-2.23	1.62-2.57	2.85-2.95	3.16-4.66	3.92-4.79	4.77-5.45	5.59-6.47	4.17-5.20	3.50-4.20	-
Statice (bunch)	1.84-2.16	1.84-2.16	1.96-4.98	2.33-8.00	2.58-7.36	-	-	3.69	7.13	1.30-2.51
Stock Double (per 5)	-	-	-	-	-	7.24-7.97	4.31-5.41	3.12-4.08	3.18-3.88	2.29-2.48
Tulip (per 5)	-	-	-	-	4.40-5.08	5.67-7.14	4.62-4.99	4.14-4.80	-	-

Source: "Horticulture News" 1994 issues

1993 Prices:

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

	Jan/Feb	Feb/Mar	Mar/Apr	Apr/May	May/June	June/July	July/Aug	Aug/Sept	Sept/Oct	Oct/Nov
Carnations:										
- Spray (per 10)	2.72-3.11	1.84-2.62	2.76-3.47	4.52-4.91	4.48-5.34	5.62-6.24	4.37-5.78	4.23-4.91	3.40-4.16	3.12-3.70
- Standard (per 10)	3.69-4.33	1.67-2.80	2.84-3.16	5.98-6.86	4.85-6.32	5.66-6.28	5.54-6.18	4.64-5.64	3.72-4.38	3.01-3.51
Chrysanthemums (per 5)	3.29-4.44	3.30-4.42	3.85-4.50	3.96-5.21	4.06-5.36	5.53-6.79	5.25-7.15	6.20-7.97	5.41-6.60	3.68-5.01
Rose (per 10)	5.14-8.35	2.79-5.13	2.53-5.41	4.58-6.46	4.48-8.41	5.90-10.42	5.98-10.81	8.39-11.42	6.17-8.40	3.47-5.99
Agapanthus (per 5)	-	-	-	-	-	2.85	2.38	-	-	-
Ageratum	0.91	-	-	-	2.93	4.09	3.46	3.69	3.69	3.89
Alstromeria (per 5)	1.73	2.31	2.52-2.67	3.02-3.65	3.67-4.12	4.01-4.23	4.16-4.23	3.94	3.48	-
Anemone (per 10)	-	-	-	-	2.19	2.28	2.19	1.65-1.92	1.17-1.59	1.31
Daffodil (per 10)	-	-	-	-	1.02-2.60	1.54-2.89	1.06-1.57	1.81-2.48	1.83-2.85	-
Delphinium (per bunch)	3.07	3.27-4.34	3.77-5.45	5.45-5.87	4.53-5.11	-	-	-	--	-
Freesia (per 10)	-	2.23	3.41	4.16	4.18	4.09-4.19	2.73-2.94	2.47-3.10	2.24-2.76	2.71
Gerbera (per 5)	2.31	2.67-3.69	3.41	4.63	4.51	4.73	4.98	4.70-5.33	2.90-4.59	1.98-2.99
Gypsophila (per bunch)	-	2.97	4.23	8.18	5.36	8.21	9.02	8.88	8.32	6.28
Iris (per 5)	-	3.21-3.51	3.45-3.66	4.41	3.46-4.41	3.89-4.67	5.21-5.43	3.62-4.11	4.23-4.98	1.82-2.29
Larkspur (per bunch)	-	1.59-2.21	2.36-2.41	3.25-3.33	3.82-3.94	-	-	-	-	-
Lily (per 5)	2.57-6.13	3.48-8.61	3.15-8.10	3.84-13.30	2.76-7.17	4.89-7.77	4.32-6.29	3.96-7.32	3.81-5.77	2.91-5.31
Ranuncula (per bunch)	-	-	-	-	-	4.09	0.00	-	-	2.43
Snap Dragon (per 5)	-	2.23	2.87	3.97	3.63	4.71	5.13	5.24-5.64	3.46-4.63	1.92-2.69
Statice sin.(bunch)	1.11-1.71	1.59-4.80	2.18-4.68	3.12-5.98	5.39-5.44	-	-	-	-	3.31-6.19
Stock Double (per 5)	-	-	-	5.26	5.36-6.01	5.64-6.61	4.96-5.54	5.49-5.94	3.08-4.75	2.95-3.83
Tulip (per 5)	-	3.88	4.43	4.43	5.39	5.28	5.13	4.98-5.85	4.01-4.94	2.84-3.31

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Source: "Horticulture News" 1993 issues

1.15 LOGS

The following information has been kindly provided by Ministry of Forestry Advisors. The prices and rates shown are those current at January 1996, and are only guidelines, being subject to a wide range of factors including location and size of woodlot, access and internal roading, log quality and changing market conditions. Farmers are advised to ring their local Ministry of Forestry office for detailed information.

Log prices are for Radiata Pine unless shown otherwise.

1.15.1 Market Outlook

The New Zealand economy continued to perform strongly in 1995. The New Zealand dollar has fluctuated significantly against the key forestry currencies - Australia, Japan and the United States - during the past twelve months. This has created some difficulties for New Zealand exporters by reducing price competitiveness and lowering export returns. The New Zealand dollar is expected to continue to strengthen throughout the forecast horizon.

New Planting

During 1995 MOF conducted a survey amongst forest nurseries which indicated that there were sufficient seedlings to establish 85,200 hectares of new planted forestry in 1995. This estimate assumes that an additional 28,500 hectares of harvested area will be restocked in the 1995 planting season. A likely new planting scenario is for planting levels to moderate over the next three to four years, coincident with New Zealand's economic cycle. The MOF's long run expectation is for an average new planting rate in excess of 50,000 hectares through to 2020.

Forestry and Logging

New Zealand's roundwood removals have increased markedly over the past 5 years, averaging an 8 percent increase annually. Announced processing capacity increases, allied with export market outlooks and increasing harvest availability, suggest this rate of increase has the potential to be maintained through 1995-1996.

Log Exports

The export market for New Zealand logs is dominated by Japan and Korea. These two markets purchase 95 percent of New Zealand logs. Prices in the Japanese market continue to show weakness with the average New Zealand log price slipping from NZ\$178 per tonne in June 1994 to NZ\$140 per tonne in June 1995. Prices are likely to remain soft through to mid-1996 given the overall weakness in the Japanese economy. For log markets as a whole, the MOF forecasts continued growth in log exporting over the coming five years. The increase in wood available for harvest will outstrip new processing capacity coming on-stream and the further utilisation of currently idle capacity in the sawmilling industry.

Woodchips

The MOF anticipates an increase in woodchip export volumes in the year to March 1996, in line with industry expectations. However, as new fibreboard capacity comes on stream in late 1996, chips are expected to be diverted into the mills reducing export volumes in the latter years of the forecast horizon.

**Over 80% of new
forestry plantings
are being made
by farmers and
small investors.**

The Ministry of Forestry offers a range of specialist publications covering all aspects of forestry and forest industries. From planting and processing to investment information. Just call our office near you.



Northland 0-9-430 3010

Auckland 0-9-303 3269

Rotorua 0-7-348 0089

Wellington 0-4-472 1569

Nelson 0-3-544 8350

Christchurch 0-3-379 1040

Dunedin 0-3-477 8454

Sawn Timber

Sawn timber markets tend to be correlated with log markets in terms of price movements, though generally with a short lag. New Zealand exports of sawn timber to the Australian market are largely influenced by interest rates and the level of home building. Conversely, in Asian markets, where radiata pine is used predominately as a packaging material, exports tend to parallel economic growth. New Zealand's sawn timber industry is badly exposed to weakness in the Australian market. In the year to June 1995 Australia imported 42 percent of New Zealand's sawn timber. However, the proportion of structural sawn timber exported to Australia is far higher. Japan, the second largest market, imports primarily packaging grade timber and generally in flitch form. The United States, the third largest market, imports mainly mouldings and shop grade timbers.

Woodpulp

International wood pulp prices have continued to rise rapidly in 1995. The MOF anticipates pulp prices being relatively close to their peak. There remains considerable doubt as to how long the peak will be sustained and rapidity with which downward price movements may occur. These forecasts anticipate a gradual easing over the next three years as the additional capacity cuts in and the global economy softens.

Newsprint

In New Zealand, significant changes in newsprint production are likely to occur over the next three years, with the announcement that the Tasman Pulp and Paper's Kawerau mill are looking at converting one of the newsprint machines to produce fine coated paper. The newsprint reduction would eliminate the need to export into Asian spot markets and reduce the volume of exports into Australia.

Conclusion

The fibre-based and solidwood markets for New Zealand forestry products markets can be characterised, in very broad terms, as being at opposite ends of the price spectrum. Globally, pulp and paper markets are approaching or have in some cases exceeded, their historical maximums, while key log and sawn timber markets, Japan and Australia, are in recession. Harvesting levels will continue to increase as the forestry resource matures, with log exporting likely to remain close to current volumes and the sawmilling and panel industries expected to increase output to absorb the bulk of the harvest increases.

For further information, please contact the *Ministry Of Forestry*. Chris Brown, Senior Analyst International Policy, PO Box 1610, Wellington, Tel: (04) 472-2314

1.15.2 Export Log Prices

December Quarter 1995

Grade	\$NZ per JAS (f.o.b)
Pruned - Japan, Korea	\$200 to \$230
Unpruned A - Japan	\$130 to \$140
Unpruned K - Korea	\$110 to \$125
Unpruned J - Japan	\$110 to \$120
Pulp - Japan	\$75 to \$90

Source: Ministry of Forestry, 1995

1.15.3 Domestic Log Prices

December Quarter 1995

Grade	\$ per tonne delivered
P1	\$160 to \$210
P2	\$110 to \$135
S1	\$90 to \$115
S2	\$80 to \$115
L1 and L2	\$70 to \$95
S3 and L3	\$65 to \$70
Run of bush	\$65 to \$95
Pulp	\$40 to \$65

Source: Ministry of Forestry, December 1995

1.15.4 Log Grade Specifications

Domestic Log Grades

<i>Log Grade</i>	<i>Pruned/ unpruned</i>	<i>Small end diameter (mm)</i>	<i>Lengths (m)</i>	<i>Max knot (mm)</i>	<i>Sweep class</i>
P1	Pruned	400+	4.0 to 6.1	NA	1
P2	Pruned	300 to 399	4.0 to 6.1	NA	1
S1	Unpruned	400+	4.0 to 6.1	60	1
S2	Unpruned	300 to 399	4.0 to 6.1	60	1
S3	Unpruned	200 to 299	4.0 to 6.1	60	1
L1	Unpruned	400+	4.0 to 6.1	140	1
L2	Unpruned	300 to 399	4.0 to 6.1	140	1
L3	Unpruned	200 to 299	4.0 to 6.1	140	1
Pulp	Unpruned	100+	4.0 to 6.1	NA	2

Note: Sweep class is defined by maximum permissible sweep

Export Log Specifications:

Log Grade	Minimum Small end	Average Small end diameter (mm)	Maximum Long end diameter (mm)	Maximum Knot diameter (mm)	Length (m) (mm)	Percentage allowed	Sweep
Pruned Pruned peelers	300	unrestricted	unrestricted	NA	4.0,6.0	Shipper's option	1/4 s.e.d
Unpruned C&I construction peelers	300	unrestricted	unrestricted	80	4.0,6.0,8.0	Shipper's option	1/4 s.e.d
Korean H peelers	160 to 200	260	unrestricted	70 to 80	4.0	5%max	1/4 s.e.d
Japan H peelers	200	unrestricted	500	80	6.0,8.0	Shipper's option	1/4 s.e.d
Japan A	200	340	800	*	4.0	10% max	1/4 s.e.d
					8.0	balance	1/2 s.e.d
					12.0	50% min	s.e.d
Japan J	200	260	unrestricted	*	4.0	10% max	1/4 s.e.d
					8.0	balance	1/2 s.e.d
					12.0	50% min	s.e.d
Korea K	200	260	unrestricted	*	3.6	balance	1/4 s.e.d
					5.4	10% max	1/4 s.e.d
					7.3	balance	1/2 s.e.d
					11.0	40% min	s.e.d
China C	200	260	unrestricted	*	4.0	15% max	1/4 s.e.d
					6.0,8.0,10.0	Shipper's option	1/2 s.e.d
Japan pulp	100	unrestricted	unrestricted	unrestricted	4.0,6.0,8.0	Shipper's option	unrestricted

Note: s.e.d = Small end diameter

* = 1/3 s.e.d up to 150mm max. Excessive number of large knots not permitted.

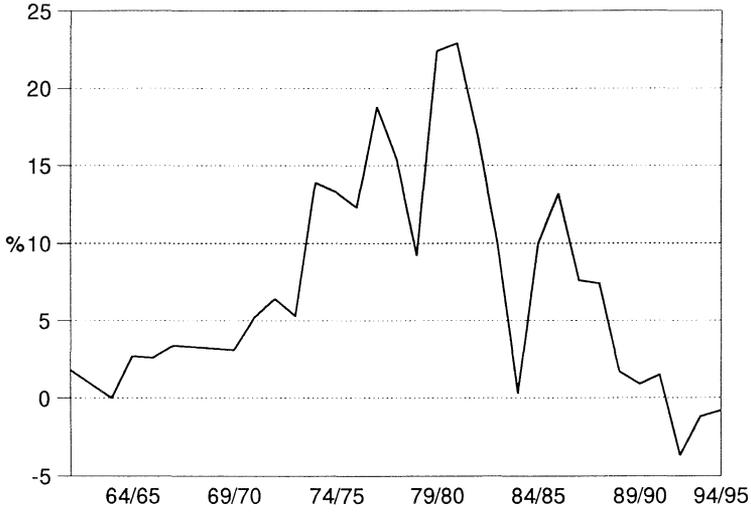
SECTION 2

FARM AND ORCHARD EXPENSES

2.1 INPUT PRICES - GENERAL INFORMATION

2.1.1 Input Price Movements

Sheep and Beef Farm Input Price Movements 1960/61 to 1994/95



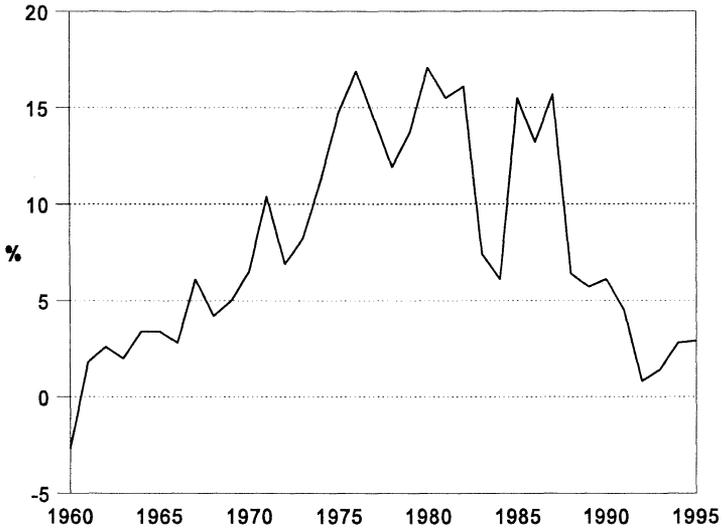
Source: N.Z. Meat and Wool Boards' Economic Service

2.1.2 Price Discounts

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

2.1.3 Rate of Inflation in New Zealand 1960 to 1995

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



Source: Reserve Bank

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/salaries commonly paid to farm employees, Mr L.Orr of *Central Employment*, Pukekohe, and Ms P. Robinson of *Central Employment*, Gore, have kindly provided the following figures:

Note: The average working week equates to approximately 50 hours.

Dairy: (Wages/Salaries include rent free accommodation)

Single worker - \$13,000 to \$20,000, depending on experience and whether contract milking.

Married Person (limited experience) - \$23,000 to \$28,000

(Couples - both working on the farm \$40,000)

Manager (up to 180 cows) - \$26,000 to \$35,000

Manager (with staff supervision) - \$28,000 to \$50,000

Management Position

- Married couple with spouse milking until Christmas (220 to 250 cows)
- \$40,000 to \$50,000
- or with spouse working full-time on farm
- \$45,000 to \$65,000

Contracts:

A common contract includes \$1.10 to \$1.25 per kg milkfat and paying some shed expenses. Conditions of these contracts vary greatly.

Lower Order Sharemilking positions:

- 20% milk cheque with no costs except labour
- 25% milk cheque but paying farm bike expenses, some shed costs and labour
- 30% milk cheque but paying all machinery, shed and labour costs
- 35 to 40% milk cheque with more negotiable conditions

Sheep and Beef: (Wages/Salaries include rent free accommodation)

Single worker \$13,000 to \$21,000, "fully found" *

Married Shepherd \$22,000 to \$25,000
(Southland: \$23,000 to \$26,000)

Stock Manager \$28,000 to \$32,000
(Southland: \$27,000 to \$31,000)

Manager \$28,000 to \$50,000
(Southland \$30,000+)

General hand tractor driver from \$23,000 to \$28,000

Head Shepherd \$24,000 to \$28,000

* "fully found" means the employer provides full board, in addition to the wage rates shown.

Note: These figures come from the average to the upper end of the salary scale.

2.2.2 Wages and Salaries - Horticultural Employees

Some typical wage rates are as follows:

Orchard Workers (Canterbury)

Permanent Staff:

Foreman	\$11.40 per hour
Assistant Foreman	\$10.77 per hour
Permanent Leading Hand	\$10.13 per hour
Permanent Leading Hand II	\$9.40 per hour
Adult Unsupervised	\$8.69 per hour
Permanent Adult Learning	\$8.20 per hour
Permanent Junior under 19	\$7.41 per hour
Adult unsupervised, acting as supervisor	\$9.97 per hour

Casual Staff:

Casual	\$7.54 per hour
Casual - Experience Level 1	\$7.83 per hour
Casual - Quality Assurance	\$8.36 per hour
Casual Supervisor	\$9.22 to \$9.52 per hour, depending on experience
Tractor Driver	\$7.54 per hour
Forklift Operator	\$8.36 per hour
Penalty Rate	\$6.54 per hour

Note: These hourly rates are exclusive of holiday pay. The pay rates are negotiated annually as part of the collective employment agreements for casual, qualified casual and permanent employees. Any variation to these rates can only be upward and must be approved by the Operations General Manager. The exception is the casual penalty rate which is a temporary reduction in wage to penalize performance below minimum standards.

Orchard/Packhouse Workers (Auckland)

General staff

(packhouse staff paid towards lower end of scale of scale graders paid towards the higher end of scale)	\$8 to \$9 per hour
Casual (some experience)	\$7.74 per hour
Casual - Foreman	\$8.50 to \$9.00 per hour
Tractor Drivers	\$10 per hour

Tomato Glasshouse Workers (Canterbury)

Casual Youth (depending on age/experience)	\$6.50 per hour
Casual Adult	\$7.50 per hour
Permanent adult	\$7.50 to \$10.60 per hour

Market Garden (Hastings)

Adult casual inexperienced	\$7.70 per hour
Adult casual experienced	\$8.00 to \$8.50 per hour
Permanent experienced	\$10.80 per hour
Casual Supervisor	\$10.00 per hour

Note: Market garden wages are estimates based on 1995 figures

Contract Field Workers: (Bay of Plenty-1995 figures)

Experienced workers employed on contract (orchard work - spray/ prune/ thin/ pick, etc.) earn in the vicinity of \$10 per hour, and up to \$15 per hour for top people and those in supervisory roles.

Berryfruit Workers

A 1992 survey carried out by the NZ Berryfruit Growers Federation provided information on wages paid to workers on berryfruit orchards:

Whilst no up to date figures were available at time of printing (February 1996) it is estimated that rates would have risen by 5 to 10% over those quoted here.

	Manager (per year)	Foreman (per hour)	Permanent Adult (per hour)
Ave	\$29,250	\$10.11	\$8.03
Range	\$22500 to \$33000	\$7.78 to \$16.00	\$7.00 to \$9.50
	Permanent Youth (per hr)	Casual Adult (per hr)	Casual Youth (per hr)
Ave	\$5.65	\$7.81	\$6.05
Range	\$4.50 to \$6.50	\$6.67 to \$10	\$4.50 to \$8.00

Fruit picking rates were as follows:

Strawberries

Ave	59¢ per kg
Range	45¢ to 80¢
Auckland lowest	
Horowhenua highest	

Boysenberries

Ave	47¢ per kg
Range	28¢ to 66¢
Nelson lowest	
Waikato highest	

Raspberries

Ave	\$1.29 per kg
Range	\$0.75 to \$3.00
Indiv. Quick Frozen ave	\$1.80
Bulk Frozen ave	\$1.15

Blueberries

Ave	\$1.77 per kg
Range	\$1.00 to \$4.00
Mid Season ave	\$1.57
Early/Late ave	\$2.20

2.2.3. Recommendations for Contract of Employment for F.E.T.A. Cadets

The Agriculture Industry Training Organisation is the Industry Training Organisation (I.T.O.) for the farming industry. One of its primary roles is training of young people through the facilitation and co-ordination of the Farm Cadet Scheme, providing both on farm and off farm training leading towards National Certificates in Agriculture and Farm Business Management.

1. Remuneration

(also refer *Section 2.2.1* for current wage rates).

- The minimum adult wage as set by Government legislation increased from \$6.125 per hour to \$6.25 from 22nd March 1995. The minimum wage for those aged 16 to 20 years increased on the same date from \$3.65 to \$3.75 per hour.
- Increases for training and/or experience:

1 years NCA	+ 5 percent
2 years NCA	+ 10 percent
3 years NCA	+ 15 percent
FBM A	+ 20 percent
FBM B	+ 25 percent

2. Accommodation, food, clothing and perquisites

Where board and lodging is not provided a market related allowance is generally paid over and above wages and salaries. A non-taxable wet weather gear allowance of \$6.00 per week is also paid in addition to wages and salaries as outlined above.

3. Hours of Work

The wages and salaries outlined earlier are based upon the maximum ordinary hours for dairy farm employees being 98 hours per fortnight, and for sheep, beef, pig and arable farms 80 hours. If employees are working a greater number of hours it is important they are compensated either in terms of hourly rates and/or salary.

Breaches of the minimum wages legislation exposes employers to penalties and lessens the image of the industry.

4. Employment Contracts

For the protection of both employer and employee a formal and recognised Employment Contract should be entered into. (Contact your local Agriculture I.T.O. Field Officer for further information). Such Employment contracts specify the responsibilities of both parties in relation to:

- Wages and Salaries
- Job Description
- Hours of Work
- Leave Entitlements
- Equal Pay
- Parental Leave and Employment Protection

2.2.4 Drawings

Drawings or Personal expenditure for farmers and growers :

Northern North Island:

- Dairy \$25,600 to \$31,000
- Sheep and Beef \$17,000 to \$28,000
- Deer \$30,000
- Kiwifruit \$19,050

Lower North Island:

- Sheep and Beef \$23,000 to \$45,000
- Dairy \$28,000 to \$30,000
- Pipfruit \$22,500

Canterbury and Northern South Island:

- Sheep and Beef \$15,500 to \$23,773
- Mixed Cropping and Livestock \$25,000
- Dairy \$19,000 to \$31,000
- Apple Orchards \$10,000 to \$31,000

Otago and Southland:

- Sheep and Beef \$21,000 to \$42,000
- Dairy \$40,000

Source: MAF Farm Monitoring Report, January 1996.

2.3 ANIMAL EXPENSES

2.3.1 Animal Health - Average Costs

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

Dairy Cows

Total animal health costs can range from \$25 to \$48 per cow depending on the farm locality, herd size etc. Below are the ranges for each region:

Northern North Island	\$34.38 to \$36.76 per cow
Lower North Island	\$31.25 to \$48 per cow
Canterbury and Northern South Island	\$25.20 to \$33.32 per cow
Otago and Southland	\$45 per cow

See individual items for accurate budgeting.

Sheep and Cattle

Total animal health costs typically range from \$1.00 to \$3.00 per stock unit per year depending on the farm, season etc.

Northern North Island	\$1.39 to \$2.99 per stock unit
Lower North Island	\$1.32 to \$2.08 per stock unit
Canterbury and Northern South Island	\$1.23 to \$2.28 per stock unit
Otago and Southland	\$1 to \$2.30 per stock unit

See individual items in this section for accurate budgeting.

Deer

Total animal health costs typically average around \$4 to \$5 per stock unit.

Source: MAF Farm Monitoring Report, January 1996

2.3.2 Drenches/Vaccines/Bloat Control Drenches/Anthelmintics

Sheep Drenching Costs - Examples:

Tradename:	<i>Nilverm</i>	<i>Rycoben</i>	<i>Levicare</i>	<i>Ivomec</i>
Dose rate:	All 1 ml per 5 kg live weight, except Ivomec, 1 ml per 4 kg			
Cost per ml:	0.51 cents	0.81 cents	0.48 cents	2.3 cents
Cost per 50 kg ewe:	5.1 cents	8.1 cents	4.8 cents	29 cents

Cattle Drenching Costs - Examples:

Tradename:	<i>Rycoben</i>	<i>Systemex</i>	<i>Fenben HI-MIN</i>	<i>Ivomec Injection</i>
Dose rate:	1 ml/20 kg	1 ml/20 kg	15 ml/50 kg	1 ml/50 kg
Cost per ml:	4.8 cents	5 cents	0.66 cents	60.4 cents
Cost per 500 kg cow:	\$1.20	\$1.25	99 cents	\$6.04

<u>Product</u>	<u>Dose Rate</u>	<u>Unit Size</u>	<u>Retail Price</u>
<i>Ancare:</i>			
Levicare (sheep)	1 ml per 5kg	30 litre	\$144
(cattle)	9 ml per 45 kg		
Levicare HI-MI (sheep)	1 ml per 5kg	30 litre	\$162
(cattle)	4.5 ml per 45 kg		
Levitape (lambs)	1 ml per 5 kg	10 litre	\$324
Levitape HI-MI (lambs)	1 ml per 5 kg	10 litre	\$324
Lypor (cattle)	6 ml per 100 kg	1 litre	\$71
Fenben (sheep)	1 ml per 5 kg	20 litre	\$120
(cattle)	15 ml per 50 kg		
Fenben HI-MIN (sheep)	1ml per 5kg		
	15 ml per 50 kg	30 litre	\$198
 <i>Bayer:</i>			
Citarin L 4% (sheep over 35 kg)	8ml		
(cattle)	9ml per 45kg	20 litre	\$80
 <i>MSD Agvet:</i>			
Ivomec Liquid (sheep)	1ml per 4kg	5 litre	\$163.63
		20 litre	\$459.38
Ivomec Liquid (sheep, selenised)	1 ml per 4 kg	20 litre	\$459.38
Ivomec Injection (cattle)	1ml per 50 kg	200 ml	\$144.38
		500 ml	\$301.88
Ivomec Plus Injection (cattle)	1ml per 50 kg	200 ml	\$144.38
		500 ml	\$301.88
Ivomec Injection (pigs)	1ml per 33 kg	100 ml	\$76.13
Ivomec SR Bolus for cattle		per bolus	\$21.88
Ivomec Pour-on	1 ml per 10 kg	250ml pack	\$45.06
		1 litre	\$145.25
		2.5 litre	\$301.88
		5 litre	\$595
Ivomec Cattle Oral	1 ml per 20 kg	1 litre	\$236.25
Eqvalan Paste (for horses)	1 syringe per 600 kg		\$15.75
 <i>Mallinckrodt Veterinary:</i>			
Sheep and cattle:			
Nilverm, selenised	1ml per 5kg	20 litre	\$100.63 to \$105
Mitre, selenised	1ml per 5kg	20 litre	\$140
Combat, selenised	1 ml per 5kg	20 litre	\$261.63
Systemex, selenised	1 ml per 5kg	20 litre	\$158
Systemex, low dose cattle	1ml per 20kg	2.5 litre	\$126.88

Nufarm:

Sheep and cattle:

Levamisole All Min	1 ml per 5 kg	20 litre	\$130
Mineralised Levamisole	1 ml per 5 kg	20 litre	\$125
Sheep and lambs:			
Nemadet	1 ml per 5 kg	20 litre	\$150
Nemadet Extra	1 ml per 5 kg	20 litre	\$160

Young's Animal Health (NZ) Ltd:

Leviben (sheep)	1 ml per 5 kg	20 litre	\$267
Rycoben (sheep and lamb)	1 ml per 5kg	20 litre	\$162
Eradox	-	20 litre	\$158
Rycozole	1 ml per 5kg	20 litre	\$101
Rycoben (cattle and deer)	1ml per 20kg	5 litre	\$241
Rycotape	-	10 litre	\$328
Eradox low dose	-	5 litre	\$201

Vaccines

(Bl = Blackleg, MO = Malignant Oedema, Tet = Tetanus, PK = Pulpy Kidney, BD = Black Disease, IBR = Infectious Bovine Disease, BVD = Bovine Disease, JD = Johnes Disease).

<u>Product</u>	<u>Dose Rate</u>	<u>Unit Size</u>	<u>Retail Price</u>
Vetivax Lepto	Cattle: 2 ml	2 ml	\$0.60 per dose

Mallinckrodt Veterinary:

Nilvax (sheep)	2ml per 10kg	500 ml	\$32.73
Nilvax S (PK, Bl, MO, Tet, BD) (sheep)	2 ml per 10 kg	2000 dose	\$523.6
Multine 5 in 1	2 ml per 10 kg	500 ml	\$25.81
Lamb vaccines	2 ml per 10 kg	500 ml	\$43.05
Footvax	1 ml (2 doses 6 weeks apart)	250 dose	\$109.38

Young's Animal Health (NZ) Ltd:

Ryvax 5 in 1	Sheep: 2ml per dose	500 ml	\$27.56
Ryvax 4 in 1	Sheep: 2 ml per dose	500 ml	\$25.38

Bloat Control

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<i>Ancare:</i>		
Blocare 4511	200 litre	\$868

Dominion Chemicals Ltd.:

Paraffin Oil	2 litre	\$9.30
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<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<i>Elanco Animal Health:</i>		
Rumensin anti bloat capsules		\$13.95 per capsule

Nu Farm:

Bloataid Dual	20 litre	\$132.25
Bloataid Super	100 litre	\$667.00
Bloataid Tracer	100 litre	\$695.75
Bloatoid Tracer HiSe	100 litre	\$718.80
Diazinon 40	10 litre	\$193.20
Extender 100	100 pack	\$316.00

Growth Promotants

Elanco Animal Health:

Compudose 200 (steers and non-breeding heifers)		\$5.70 per implant
Compudose 400 (steers and non-breeding heifers)		\$8.90 per implant
Rumensin Premix		
(Coccidiosis control and productivity enhancer for dairy and beef cattle)		\$350 per 20kg bag

2.3.3 Dips/Sprays/Ointments/Dressings

(see also contract dipping costs, *Section 2.4.7.*)

<u>Product</u>	<u>Dose Rate</u>	<u>Unit Size</u>	<u>Price</u>
<i>Ancare:</i>			
Flypel (Lambs and hoggets)	7.5 ml	5 litres	\$188
(Ewes and rams)	10 ml		
<i>Bayer:</i>			
Tiguvon Spot On (calves <10wks)	2.5ml	20 litres	\$99.75
(adults >227kg)	10ml		
Bayticol Pour On (cattle)			
(calf <200kg)	20ml		
(adult >400kg)	50ml		
<i>Deer</i>			
(Calf up to 6 mths)	10ml	10 litres	\$224.75
(yearlings and adult)	20ml		

Mallinckrodt Veterinary:

Dips:

Grenade Dilute 1:2500,	2L wash per sheep	5litre	\$205.63
Trigon DFF	-	5litre	\$236.25
Supreme DFF	-	5litre	\$354.38

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

Warbex	5ml per 50 kg BW	5litre	\$249.38
Wipe-out	2ml per 10 kg BW	10litre	\$205.63
Stampede Easy Dose	5ml per 100kg BW	2.5litre	\$201.25

Nufarm:

Diazinon 40, various dilutions used		10 litre	\$193.20
Farmguard NuZinc (Sheep, cattle, deer and goats)	3 g/100kg daily	20 kg	\$76.00
Farmguard ZincOxide	-	20 kg	\$73.60
Farmguard Mono Zinc	6 kg/100 litres water in footbath	20 kg	\$34.50
Farmguard Zinc Sulphate Heptahydrate	10 kg/100 litres water in footbath	20 kg	\$23.00

Young's Animal Health NZ Ltd:

Sheep Dips -	<u>5 Litre</u>	<u>10 Litre</u>	<u>20 Litre</u>
Zenith	\$498.75	-	-
Seraphos 500	-	-	\$612.50
Diazinon 40	-	\$148.75	-
Lice and Fly Pour-ons-			
Avalanche	-	\$249.38	-
Cyphor	-	-	\$271.25
Cypafly	-	-	\$367.50
Fly Strike Treatments-			
Defiance	\$70.00	-	-
Seraphos 500 (fly and lice dip)	\$183	-	\$647
Seraphos 1250 (fly and lice)	\$391	\$710	-
Cypor Sheep and Goat (lice pouron)	\$88	-	\$305
Destruct (cattle sprays)	\$250	-	-
Maggo, \$33.25 per litre			

Disinfectants:

Savlon - 5 litre	\$25.64
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Technik Products:

Omnicide - disinfectant for control following a disease outbreak (5 litre)	\$138
Technicide - for use in housing and with animal equipment (20 litre)	\$85
Septex - everyday use around farm (20 litre)	\$74.46

2.3.4 Metabolics/Antibiotics

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

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
Calcium Borogluconate 37% (Milk Fever)	500 ml	\$9.36
Glucalmag - milk fever complicated by grass staggers	500 ml	\$9.28
Glucalmax - milk fever complicated by acetonaemia or grass staggers	500 ml	\$10.65
Glucalphos - milk fever complicated by acetonaemia or grass staggers and sleepy sickness in sheep	500 ml	\$10.54

Ketol - ketosis in cattle and sleepy sickness in sheep and goats	5 litre	\$48.56
Magnesium Sulphate 20%	500 ml	\$6.13
Scour Powder (calves and cows)	500 g	\$9.71

Magnesium Treatment

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

<i>Product</i>	<i>Mg</i>	<i>Weight</i> (g/10g of Mg)	<i>Costs</i> (¢/10g Mg)
Calmag (Mg oxide)	55%	18	7.5
Australian Mg oxide	55%	18	3.8
Magnesium Chloride	12%	85	8.5
Magnesium Sulphate	10%	100	11

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 prills at 1 kg per ha	\$0.70
Selenium bolus (Permasel) \$4.26 each (2 required per cow)	\$8.52
Selenium injection (Deposel) (84c per ml x 5ml minimum dose)	\$4.20
Selenium injection (Se-Hypo) (40c per injection, 1 per month required)	\$2.80
Selenium drenched daily 1.2c per day x 210 days	\$2.52

Source: Coastal Veterinarian Group, Opunake

Copper Treatment

Costs per cow (for season):

Copperplan injection, 98c per dose x 2	\$1.96
Copacap, 20gm bolus	\$4.50

Costs per calf:

Cobalt injection (Prolaject) 3ml @ 34c	\$1.02
Copper capsule (Copacap 10gm)	\$2.64

Source: Coastal Veterinarian Group, Opunake

Antibiotics (for cattle)

Intra-mammary tubes

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

	<u>Price per tube</u>
Lactating Orbenin LA	\$4.25
Mastalone	\$4.86
Streptopen Milking Cow	\$2.88
Streptopen High Potency	\$3.83
Vetimast (only 1 tube required)	\$6.68
(ii) Dry Cows: Cepravin (generally sold in boxes of 80 tubes)	\$3.38

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

	<u>Price per 100 ml</u>
Propen S (about 30 to 50 ml per dose)	\$44.46
Injectable Ceporex (no milk withholding period)	\$83.00
(1 ml per 25 kg live weight per day required, over 3 to 5 days)	

2.3.5 Veterinary Expenses

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

Farmed Animal Practices - Average Fees:

General:

Farm visit + 1st exam	\$26.82
Re-visit	\$21.03
Farm visit A/H	\$31.05
Travel per km	\$0.61 to \$0.80
Lab Test	\$8.16
Hourly rate	\$89.15

Cattle:

Pregnancy test	\$1.58
Non cycling exam	\$3.49
Blood test per animal	\$4.96
Hot iron debudding	\$2.76
Adult dehorning	\$8.13
Calf castration	\$9.02
Vasectomy	\$54.69
Caesarean	\$121.99
Semen Test	\$48.41

Horses:

Equine visit + 1st exam	\$35.75
Insurance exam	\$40.58
A/H visit	\$39.81
Hourly rate	\$37.09
Pregnancy Diagnosis, (Manual)	\$28.81
Pregnancy exam, (Ultrasound)	\$43.90
Anaesthetic - induction	\$77.66
Surgical hourly rate	\$161.44
Castration	\$153.75

Deer:

Pregnancy Test	\$2.37
TB test per hour	\$75.45
Develveting per hour	\$11.95

Goat:

Castration	\$20.65
Pregnancy Diagnosis	\$13.12

Pig:

Castrate Boar	\$41.81
Caesarean	\$108.28

Sheep:

Caesarean	\$64.46
Pregnancy Diagnosis, (ultrasound)	\$0.37
Pregnancy diagnosis (wet/dry)	\$0.37
Semen test	\$24.33
Brucellosis test	\$6.34

Source: Survey by R.H.Duckworth, December 1995 (Executive Director of the New Zealand Veterinary Association Inc.)

TB Testing:

MAF Qual now offering “user pays” TB testing for deer (All South Island)

- \$50/hour plus
 - 1ml tuberculin per head at 15c
 - 25c clipper hire per head
 - 50c/km charged for travel

Calf debudding (gas):

\$3 per head, 10% discount if paid cash on day. 50c/km charged for travel.

Facial Eczema Tolerance Testing Fees (for Rams):

AgResearch: Ramguard

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

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

2.3.6 Animal Health Equipment

Allflex NZ Ltd.:

Phillips automatic 150ml drench gun, cattle	\$145.00
Phillips 20ml adjustable dose automatic drench gun	\$124.55
Phillips 60ml automatic drench gun	\$158.15
Phillips 10ml automatic injector	\$122.22
Phillips 5ml lever action automatic injector	\$126.66
Phillips 5ml automatic vaccinator	\$87.45
‘Vaxomatic’ 5ml disposable automatic vaccinator	\$15.95

Electro-tek Engineering Ltd.:

Calving Chain Handles	\$11.10
Calving Ropes	\$8.40

Instrument Supplies:

Drench Gun	\$75.00-\$125.00
Vaccinators	\$13.50-\$17.00

Peta Enterprises:

Bloat Dispenser, pack 1 (24 hour), 1 dispenser	\$77.15
Bloat Dispenser, pack 2 (12 hour), 2 dispensers	\$164.70
Multi-purpose Solid Dispenser (for Mg, salt, trace elements, etc.)	\$138.12
Zinc Dispenser, for zinc sulphate	\$147.57

Shoof International: (Includes freight)

Automatic drench gun (20 to 70 ml)	\$125
Manual drench gun (20 to 150 ml)	\$79 to \$90
Drench Back packs 4.5 litre	\$39.95
5 litre	\$49.95

Bolus Guns	\$55
Auto Injector	\$12
Automatic syringes	\$55 to \$95
Re-useable Syringes	\$11.95 to \$99
Disposable syringes - packs of 100 (1 to 10ml)	\$17.95 to \$29.95
- packs of 50 (20 and 30ml)	\$22.50 and \$39.50
- 25 pack (50ml)	\$23.50
Needles - re-useable (12 pack)	\$5.50 to \$10.95
(depending on size)	
- disposable (100 pack)	\$14.50

Bloat Knife	\$15.75
Trocar Plastic Screw	\$26.95
Trocar Stainless (includes 4 canulas)	\$69
Mastitis Tests -electronic	\$695
RMT (5 litre container)	\$31.95
Paper (25 pack)	\$5.95

Drench Gun Services:

Gas Gun Phillips 50ml	\$639.83
120ml Gun	\$190.02
60ml Gun	\$212.51
30ml Gun	\$152.99
20ml Gun	\$133.88
Vaccinator - 1ml	\$82.46
- 2ml	\$141.02

2.3.7 Dog Expenses

Dog Registration and Hydatid Control Fee

These vary depending on the Local Body involved. Fees for pups depends on age. Examples of some Local Body fees are:

Horowhenua District Council:

Farm Dogs	\$28.00 per dog
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Manawatu District Council:

The following applies to all dogs in the district over the age of 3 months.

Standard registration fee - \$43.75 per dog (applies to all six weekly treatment dogs).

Reduced registration fee - \$26.25 per dog (applies to all movement control policy dogs).

Reduced registration fee - \$17.50 per dog (applies to all selected owner policy dogs).

Selwyn District Council:

Working dogs

- 6 weekly dosing - First dog \$60, Second and subsequent dogs \$40
- movement control - First dog \$40, Second and subsequent dogs \$20

Dog feed - see *Section 2.3.14*

2.3.8 Breeding Expenses

Dairy farmers are currently spending about \$26 a cow per year on breeding and testing (combined). The ranges for each region are as follows (per cow per year):

Northern North Island	\$23.13 to \$28.57
Lower North Island	\$20.63 to \$29.73
Canterbury and Northern South Island	\$24.64 to \$25.55
Otago and Southland	\$27.00

Source: M.A.F. Farm Monitoring Report, January 1996

Livestock Improvement Corporation:

Nominated Semen Options (all regions):

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 Semen Catalogue along with complete pricing details.

Total cost \$18.70 per animal

Insemination component will be charged as for other yearling inseminations, using the nominated or PREMIER SIREs services. These fees do not include veterinarian farm visit fees which, if they apply, are charged by the veterinarian to the client direct.

- DIY training \$275 for a five day course.
- A.B. technician nominated insemination charges, \$4.50 per insemination. Some locations, timing of services, or non-dairy, may incur additional charges.
- 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.
- Semen storage, no charge for the first 20 straws. Additional straws will be charged at a rate of \$3 per client per month plus 2.5 cents per straw per month.
- Semen despatch fees - fees for despatching nominated semen sold by *Livestock Improvement* (charged to the client).
 - i). DIY clients will be charged a despatch fee of \$20 per order.
 - ii). Late despatch fee of \$20 per order when orders for *Livestock Improvement* nominated brands semen are received within 30 days of the required date or after the bank has gone into the field.
- Handling fee, \$28 per order for semen in storage that is transferred from one client to another.

Artificial Breeding:
Livestock Improvement Corporation
Premier Sires Artificial Breeding

	Auckland	Per Cow Cost Taranaki	South Island
(Technician Service)			
1st 100	17.00	15.50	20.10
2nd 100	16.50	15.50	19.50
3rd 100	16.00	15.50	19.00
4th 100	15.40	15.50	18.50
Thereafter	14.90	15.50	17.90
		Per Insemination Cost	
1st 100	13.20	11.90	14.90
2nd 100	12.80	11.90	14.50
3rd 100	12.40	11.90	14.10
4th 100	12.00	11.90	13.70
Thereafter	11.60	11.90	13.30
(D.I.Y. Operators)			
1st 100	12.20	10.90	13.90
2nd 100	11.80	10.90	13.50
3rd 100	11.40	10.90	13.10
4th 100	11.00	10.90	12.70
Thereafter	10.60	10.90	12.30

Premier Genetics N.Z. Ltd.:

Cattle Embryo Transfer Fees

One Donor - programme and flush (including drugs)	\$500
Two Donors - programme and flush (including drugs)	\$450/donor
Three Donors - programme and flush (including drugs)	\$400/donor
Four or more Donors - programme and flush (including drugs)	\$350/donor
Non surgical transfers - per embryo	\$80
Surgical Transfers	\$100

Special Rate: (Out of season only)

Five or more donors (includes flushes, transfers into recipients, freezing and drugs)
\$600/donor

Freezing - charge per embryo	\$40
Thaw and Implant (charge per embryo)	\$100
● 1 to 9 embryos	\$80
● 10 to 20 embryos	\$60
● more than 20 embryos	\$60

Surgical Transfers add \$25 per recipient
Embryo Splitting price on request.

Note: Travel and accommodation expenses are additional. The above fees do not include synchronisation of recipients, which will normally be carried out by the farmer's own veterinary practitioner.

Bull Semen Collection:

On Farm Collection	- Attendance Fee	\$70
	- Under 200 Straws	\$3.50 per straw
	- 200 straws and over	\$3 per straw
	- Travel	0.65c per km
On Centre Collection	- Entry Fee	\$550
	- Collection Fee	\$2 per straw (domestic use)
	- Grazing after 42 days	\$42 per week
Storage - 0.4c/straw/month, minimum charge \$15 per year		
Despatch	- For despatch	\$17
	- Liquid Nitrogen	\$4
	- Freight	At cost

Inducing Dairy Cows

A Taranaki veterinary club charges the following for inducing:

First visit fee	\$25 for the first half hour
Drug per animal (1st shot 5ml dexavet)	\$6.00
Second visit fee	\$25 for the first half hour
Drug per animal (2nd shot 5ml dexavet)	\$5.50
Cost per cow	\$61.50

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

Bull Appraisal

Appraisal of two bulls, including semen sampling, should cost about \$100.

Sire Replacement

See Stock Purchases, on following page.

Pregnancy Detection

Refer to *Section 2.4.8*

2.3.9 Ostrich and Emu Incubation

Smaller sized incubator (suitable for the eggs produced across one season from 1 to 2 pairs of either species)	\$2500 to \$3500
Mid-sized incubator (3 to 6 pairs)	\$5000 to \$10000
Large incubator (5 to 15 pairs)	\$12000 to \$20000

2.3.10 Stock Purchases

Beef Cattle

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

For example:

Run Bulls at Name Auctions -

Angus	\$3,500 to \$20,000
Hereford	\$3,000 to \$10,000
Charolais	\$2,500 to \$8,000
Run Bulls from second tier studs are usually in the range of	\$2,500 to \$5,000

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

Dairy Cattle -See *Sections 1.5.5, 1.5.6 and 1.5.7*

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

Rams. The following figures are some approximate values for flock rams:

Dorset Down	\$200 to \$400
Corriedale	\$200 to \$450
South Dorset Down	\$250 to \$400
Perendale	\$200 to \$400
South Suffolk	\$200 to \$400
Border Leicester	\$200 to \$300
Suffolk	\$250 to \$450
Borderdale	\$250 to \$400
Romney	\$250 to \$500
Coopworth	\$200 to \$450
Merino	\$300 to \$800

Note: These values are only useful as a guide for budgeting purposes. Up to date figures should be obtained wherever possible.

Exotic Breeds: (Oxford Down, Texel, Finnish Landrace)

The following figures are some approximate values for flock rams:

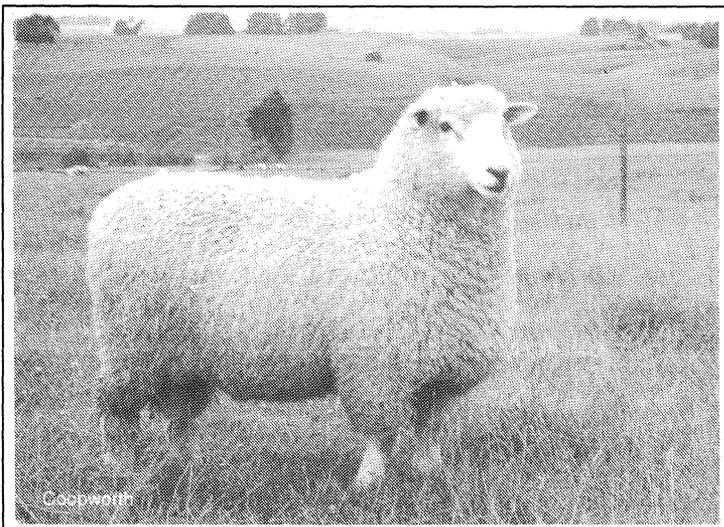
<i>Texel:</i>	Average Pick	Range
Purebred	\$375	\$250 to \$500
7/8	\$350	\$300 to \$400
3/4	\$300	\$250 to \$400
½ (Dorset Cross)	\$350	\$250 to \$400

Oxford Down:

Purebred	\$200 to \$350
7/8	\$200 to \$350
3/4	\$200 to \$300
½	\$150 to \$250

Finnish Landrace: ½ bred \$250 to \$350

*With Coopworths
You Can
Budget
with Confidence*



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

Deer

- Stags

The average price for breeding stags (red deer) is in the region of \$3,000 to \$5,000. Some very high producing stags have been sold for up to \$25,000. The average price for Wapiti breeding stags is between \$3,000 and \$5,000 with some top stags reaching \$30,000.

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

Goats - See *Section 1.7.6*

Ostrich and Emu - See *Section 1.9.2*

2.3.11 Herd Testing Charges

General

Dairy farmers are currently spending about \$26 a cow per year on herd testing and breeding (combined). The ranges for each region are as follows:

Northern North Island	\$23.13 to \$28.57 per cow
Lower North Island	\$20.63 to \$29.73 per cow
Canterbury and Northern South Island	\$24.64 to \$25.55 per cow
Otago and Southland	\$27 per cow

Source: M.A.F. Farm Monitoring Report, January 1996.

Livestock Improvement

Livestock Improvement's basic fee enables clients to indicate the preferred date for the first test, and how many tests they require. If clients specify the dates they would prefer to have for each test then a 12.5% premium is applicable. Herd test clients are automatically enrolled in MINDA although the fees for MINDA are not shown in the Herd Test fees. The fees will be shown separately on invoice statements broken into

1. Fixed fees for dairy herds.
2. MINDA for non-dairy herds
3. Optional MINDA Herd Report Fees
4. MINDA Disk Downloads

Auckland/Waikato Region - 1995/96:

A.) Sample Officer or Self-Sample assist	Herd Fee	\$200
	Visit Fee	\$120
	Per cow per test fee	\$1.25
B.) Self-Sample (without labour)	Herd Fee	\$200
	Visit Fee	\$30
	Per cow per test fee	\$1.25

U.L.T.I. fees - 6 month contract, charged in six separate monthly instalments.

Technician option;	Sample officer	\$345 herd fee per month
	Self-sample assist	\$3.30 per cow per month
	Self-sample	\$290 herd fee per month plus \$3.30 per cow per month

D.I.Y. Option;	Sample officer or	\$345 herd fee per month
	Self-sample assist	\$2.95 per cow per month
	Self-sample	\$290 herd fee per month plus \$2.95 per cow per month

Taranaki Region - 1995/96:

A.) Sample Officer OR Self-Sample assist;	Herd Fee	\$200
	Visit Fee	\$150
	Per Cow test fee	\$1.25
B.) Self-Sample (without labour)	Herd Fee	\$200
	Visit Fee	\$60
	Per cow test fee	\$1.25

U.L.T.I. 6 month contract, charged in six monthly instalments.

Technician Option -	Sample Officer or	\$360 herd fee per month
	Self-sample assist	\$3.15 per cow per month
	Self-sample	\$310 herd fee per month plus \$3.15 per cow per month
D.I.Y Option-	Sample officer or	\$360 herd fee per month
	Self-sample assist	\$2.80 per cow per month
	Self-sample	\$310 herd fee per month plus \$2.80 per cow per month

South Island - 1995/96:

A.) Sample Officer OR Self-Sample Assist	Herd Fee	\$200
	Visit Fee	\$180
	Per Cow test fee	\$1.50
B.) Self-Sample (without labour)	Herd Fee	\$200
	Visit Fee	\$90
	Per cow visit fee	\$1.50

ULTI, six month contract, charged in six monthly instalments.

Technician Option -	Sample Officer or	\$380 herd fee/month
	Self-sample assist	\$3.85 per cow per month
	Self-sample	\$325 herd fee/month plus \$3.85 per cow per month
DIY Option-	Sample Officer or	\$380 herd fee per month
	Self-sample assist	\$3.35 per cow per month
	Self-sample	\$325 herd fee per month plus \$3.35 per cow per month

The INVESTA-MATE discount applies to herds which use Premier Sires on at least 70% of the cows in the herd, and which herd test at least four times a year.

Discount levels

1st year	2.5%
2nd year	5.0%
3rd plus years	7.5%

2.3.12 Dairy Shed Expenses

Shed Expenses per Cow

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:

Depending on the farm, size of herd etc, *total shed expenses* typically range from \$12 to \$24 per cow per year. This does not include animal health. Below are the ranges from each region (per cow per year):

Northern North Island	\$12.81 to \$18.00
Lower North Island	\$14.38 to \$16.22
Canterbury and Northern South Island	\$12.04 to \$24.08
Otago and Southland	\$13.00

Source: M.A.F. Farm Monitoring Report, January 1996.

See also *Section 2.3.1* for animal health and *Section 2.5.1.* for electricity.

Detergents and Sanitizers

Diversey:

Mycorinse detergent	180 litre	\$682.67
Low Foam Mycosan dairy sanitizer	20 litre	\$103.47
Mycosan S dairy sanitizer	20 litre	\$103.51
Deosan Acid Bright Low Foam	20 litre	\$66.67
Deosan Alternate 50C	20 litre	\$72.89
Deosan Coldbrite	20 litre	\$90.67
Deosan D90	15 kg	\$114.67
Deosan Whirl	18 kg	\$88.00

Klenzade:

Klenz Iodophor - sanitizer	20 litre	\$89.24
Iodovat - kold klenz	20 litre	\$110.50
Q Klenz - sanitizer and cleanser	20 litre	\$97.75
Low Foam Q Klenz	20 litre	\$97.75
Klenz Alltemp	20 litre	\$84.44
Klenzphos H.C.milk stone remover	20 litre	\$134.48
Stainless Steel Detergent	20 kg	\$116.62
Kleer Klenz - alkaline cleaner	20 kg	\$97.75
Principal	20 litre	\$99.87
Klenzaid	20 litre	\$79.70
Chloride of Lime	9 kg	\$42.84
Caustic Soda	20 kg	\$61.09

Milka-Ware:

Dairy Acid	100 litre	\$436.22
Dairy Alkali	100 litre	\$363.55
Dairy Idophor	20 litre	\$112.03
Liquid Scour	5 litre	\$22.90

Nu Farm:

Iodophor Daily Sanitiser	20 litre	\$96
Lo-Count Super	100litre	\$364
Lo-Count Alkali	10 kg	\$58.80

Dairy Ointments, Soaps and Teat Sprays

Agmax Industries Ltd:

Teatspray (concentrate)	100 litre	\$497.78
Iodine	20 litre	\$107
Sorbitol	20 litre	\$76.50

Ancare:

Teatcare Plus	200 litre	\$977
Teatcare	20 litre	\$145

Diversey:

Teatspray	20 litre	\$124.44
Teat Ex	20 litre	\$159.11

Klenzade:

Blu Gard	20 litre	\$154.67
Teat Guard plus	20 litre	\$148.58

Milka-Ware:

Teat Spray	100 litre	\$720.38
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Nu Farm:

Teat Dip and Spray	100 litre	\$472
Teatspray Plus	20 litre	\$133.47
Udder Cream	3.5 kg	\$33.24

Dairy Shed Equipment

Actoagriculture:

Mastest Mastitis test kit		\$78.67
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Agrifeeds Ltd.:

Herd Test Bucket		\$157.50
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Alfa-Laval Agri:

Cup Removers only	Electronic	\$1300 (per unit installed)
	Liners	\$4.90
Shells (Teatcups)		\$20

Vacuum Pumps	Masport Master	\$1790
	Masport Super	\$2237
Vacuum Pump Oil	20 litre	\$73.80
	4 litre	\$16.00
Claws	HCC 150	\$140
	Topflo (TF 350)	\$295
EP100B Electronic Pulsator		\$235
Vacuum Pumps:		
Milka-Ware (Utile) full range		\$1609 to \$5562
Masport full range		\$1068 to \$4242
Milka-Ware water ring (Alflex)		\$3012 to \$4310
Liners: No's 1 to 16		\$4.75
	Milka-Ware European	\$5.25
	Reid/Monokura/Smith	\$6.00
	Sealed Milk Unit	\$7.95
Claws: Star Claw		\$143.20
	Milka-Ware Starflo	\$149.20
	Milka-Ware Starlite	\$152.20
	Maxi Claw - auto shut off	\$240
	Sight Claw (Visi)	\$160.20
Yellow Line Rubberware:		
Air Tubes		\$6.60-\$89
Twin Tubes		\$7.12-\$102.22
Claw Tubes		\$1.48-\$55.01
Milk Tubes		\$8.55-\$148
Suction Tube		\$72.10-\$143
Milka-Ware multi blade centrifugal pump		\$1550
Flomax Centrifugal pumps (0.75HP and 1.5HP)		\$1587 & \$1691.25
Milk Pump controllers - variable speed		\$2616.70 to \$3335.15
Filters		\$376-\$570
Filter Socks (packs of 100)		\$25.94 to \$107.20
Milk Coolers: Single Bank Plate Coolers (18 plate - 104 plate)		\$944 to \$2900
	Superflo Coolers (2000L/H - 9000 L/H)	\$4224 to \$10695
Receiving Cans: Milka-Ware Systemax 2000 C/P		\$1950
	Systemax 2000 Tee Type C/P	\$2050
Sustem Loop Can		\$1925
Receiving Can OBE 4 Ports		\$548 to \$630
Test Buckets		\$198-\$240
Mastitis Detectors		\$27.20
Automatic Cup removers		\$1700
Jetter Wash		\$58.20-\$145
Washline Injector Milka-Ware		\$812
Air Injector Valve		\$220.50
Injector Electronic Control		\$425

Nu Pulse New Zealand Limited:

Vacuum Pump System	\$280 - \$390
Milk Transport System	
Fully controlled Flexible Impellor Releaser	\$280 - \$350
Fully controlled Diaphragm Releaser	\$300 - \$390
Partially controlled Diaphragm Releaser	\$290 - \$340
Partially controlled Centrifugal Releaser	\$180 - \$200
Milk Line System	
Single Milkline	\$300
Double Milkline	\$470 - \$520
Wash System	\$160
Cluster Assembly	\$270
Pulsation	\$220
Water Heater	\$100 - \$130
Installation	\$100 - \$200

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

Dairy Shed Inspection Fees

Annual basic inspection fees for dairy sheds cost about \$100 to \$150 per shed, depending on the area.

2.3.13 Calf Rearing

Cost of Calf Rearing (*Source: I.M.Brookes, Massey University, January 1996*)

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 l @ 27¢	\$95
Pasture:	0.5 kg DM per day for 56 days	28 kg @ 10¢	\$3
			\$98

(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 l @ 27¢	\$57
Calf nuts:	1.0 kg per day for 56 days	56 kg @ 50¢	\$28
Pasture:	0.5 kg DM per day for 56 days	28 kg @ 10¢	\$3
			\$88

(iii) Ad Lib Milk

Daily gain over 10 weeks - 1.1 kg per day

Live weight at 10 weeks - 110kg

Whole milk:	8 litres per day for 42 days	336 l @ 27¢	\$91
Calf nuts:	1.0 kg per day for 20 days	20 kg @ 50¢	\$10
Pasture:	2.0 kg DM per day for 28 days	56 kg @ 10¢	\$6
			\$107

Milk Replacers: see *Section 2.3.14*

Calfateria

Agri-feeds Ltd.:

Tubing	30m	\$14.00
Replacement teats	- small	\$1.84 each
	- large	\$2.84 each
Calf bottle feeders		\$9.19

McInnes Manufacturing Ltd.:

Milk Feeders:

Milk Bar Teat		\$1.69
Milk Bar Uni		\$17.99
Milk Bar Uni with frame		\$35.00
Milk Bar mini		\$67.50
Milk Bar Junior		\$117.39
Milk Bar Quad		\$416.25
Milk Bar mobile - 20 and 24 teat		\$860.75
	- 30 and 36 teat	\$994.40

Shoof International:

Replacement teats		2.50 each
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Other Calf Rearing Equipment

McInnes Manufacturing Ltd.:

Bird Proof Meal Bar		\$173.51
Munch Trough		\$66.80
Snack Bar		\$36.56
Portable Water Trough		\$93.24

Shoof International:

Debudders	Electric, standard	\$125
	Quality	\$209
	LPG	\$245
	Gas cordless debudder	\$299

2.3.14 Feed and Nutrition

Milk Replacers

Shoof International;

'Littermilk' Milk Replacer for piglets, kids, fawns and lambs, 10 kg		\$85
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Technik Products:

Calf milk replacer supplement with essential soluble vitamins and minerals plus growth promoter		
	- 2 kg	\$23.65
	- 5 kg	\$44.40
	- 10 kg	\$84.53

Mineral/Nutritional Supplements (See also *Section 2.3.4* for metabolics)

Agrifeeds Limited: (ex Tauranga)

	<u>Drum Size</u>	
	250 kg	
Promag/Himag - cattle		\$195.13
Calcium Enriched Molasses (Vet prescription only)		\$177.63
Molasses -feedgrade		\$113.75
Molasses -Blackstrap		\$120.75
Equestri-Feed (horses)		\$185.00
	<u>Bag Size</u>	<u>Bag Price</u>
Causmag XLM/AL4	20 kg	\$20.13
Causmag Palatable Magnesium	20 kg	\$19.69
Copper Sulphate	25 kg	\$55.13
Magnesium Sulphate	25 kg	\$17.50
Magnesium Chloride	25 kg	\$21.88
Supa Zinc	25 kg	\$83.13
Zinc Sulphate - Heptahydrate	25 kg	\$22.75
Zinc Sulphate - Monohydrate	25 kg	\$31.50
Agrimag 94	25 kg	\$15.75
Ferrous Sulphate	50 kg	\$39.48
Sodium Bicarbonate	25 kg	\$19.94

Dominion Chemicals Ltd.:

	<u>Size</u>	<u>Price</u>
Energo-Mag	250ml	\$19.20
More-Mag	5 litre	\$106.68
Garlic	1kg	\$10.70
Livamol	10kg	\$37.20
Levucell Calf	1kg	\$42
Levucell SC2	5kg	\$107.50
Levucell SC20	5kg	\$707
Molasses Blackstrap	25kg	\$33.60
Molasses Palabind	25kg	\$30.50
Seaweed	25kg	\$150

Livestock Supplies (N.Z.) Ltd: (ex-store)

Trace Elements - Manganese Sulphate, feed grade	\$35.00 per 25 kg
Magnesium Supplements	
Cal Mag, superfine drenching	\$14.20 per 25 kg
Nutrimag Australian, superfine drenching/dusting	\$22.50 per 25 kg

PCL Feeds:

Calves - Megacalf	\$748 per tonne
- Megacalf plus Bovatec	\$728 per tonne
- Hi-Pro Calf pellets	\$689 per tonne
- Weanwell pellets	\$640 per tonne
- Weanwell pellets plus Rumensin	\$620.25 per tonne

Dairy Rations - Premium dairy hi energy pellets	\$635 per tonne
- Premium dairy hi energy meal	\$625.50 per tonne
- Economy dairy pellets	\$519 per tonne
- Economy dairy meal	\$509 per tonne
- By-Pass protein pellets	\$650 per tonne
Mineral supplement for Pigeons and caged birds 2 kg	\$11.64
Injectable Fe plus Vit B12 for pigs 220ml	\$20.00
Seltec - Se supplement of 300ppm, 25kg	\$27.00
Vigour - emulsified vitamins A,D and E in liquid form, 10kg	\$380.00

Supastok Feeds Ltd:

	Bulk price Per tonne	Price per 40 kg bag
Dairy Cattle:		
Supamilk steam flaked dairy high energy	\$360	\$18.50
Magnesium @ 20kg/tonne	\$14	-
Sodium Bicarbonate @ 40kg/tonne	\$40	-
Calf:		
Steam flaked calf grower + rumensin	\$430	\$21.00
Steam flaked calf finisher + rumensin	\$490	\$24.90
Calf growa crumbles + rumensin	\$430	\$21.00
Beef Cattle:		
Steam flaked stud beef	\$460	\$22.50
Horse:		
Horse grain balancer	\$550	\$26.55
Steam flaked weanling	\$655	\$28.90
Steam flaked yearling	\$560	\$25.30
Steam flaked horse concentrate	\$495	\$21.30
Grains:		
Steam flaked barley	\$440	\$20.90
Steam flaked wheat	\$450	\$21.30
Steam flaked maize	\$570	\$26.10

Note: For bulk price, minimum delivery one tonne.

Salt

Agrifeeds Ltd:

Coarse G11 (25kg)	\$8.31
Medium G23 (25kg)	\$10.06
Rock (50 kg)	\$39.38

Dominion Chemicals Ltd:

Red Rockie salt lick (10 kg)	\$11.10
Phos Rich salt lick (10 kg)	\$15.90

Livestock Supplies (N.Z.) Ltd.: (ex-store)

Ocean Thrift Cattle Lick 40kg bag	\$30
Ocean Thrift Cattle Blocks 20kg	\$13.85
Rock Salt, 50 kg	\$24.80
Agricultural Salt	\$21 per bag

Concentrates - Meal/Crumble/Pellet/Nut

Harvey Farms Pty Limited:

	<u>Price per tonne</u>
Topcalf Cereal Mix Plus	\$703.50
Topcalf Pellets and Nuts Plus	\$677.25
Topcalf Pellets and Nuts	\$687.85
Topcow springer - pre calving feed	\$603.75
Topcow Maximum - high energy dairy	\$619.50
Topcow sustain - by pass protein	\$630.00
Topcow Optimum - maize and grass silage balancer	\$645.75
Topcow Thrifty - economic supplementary feed	\$533.40

Southfert Co-op:

Rapeseed Meal	\$23 per 50 kg
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(Discount rates for bulk, 1 tonne or over)

Supastok Feeds Ltd:

	<u>Price per tonne</u>
Stamina dairy ration crumb/pellet/nut	\$360
Econo dairy ration crumb/pellet/nut	\$310
Horse and pony pellets	\$360
Pigs: Supagro breeder protein concentrate	\$700
Supagro weaner protein concentrate	\$1120
Supagro Grow/finisher protein concentrate	\$825
Deer: 12% protein deer nuts	\$380
16% protein deer nuts	\$380
20% protein deer nuts	\$450
Sheep nuts	\$360
Goat pellets	\$360

Emu and Ostrich Feeds

Commercial feed range	\$0.60 to \$0.70 per kg delivered
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(Consumption - 600 to 1200g per day)

Poultry Feeds and Premixes

NRM Feeds Ltd: (Prices are in bulk and delivered onto farm between the Rakaia and Waiau rivers.)

	<u>\$ per tonne</u>
Chick Mash	\$446
Chick Crum	\$457
Pullet Grower Mash	\$351
Pullet Grower Crum	\$357
Pullet Grower Low Energy Mash	\$324

	<u>\$ per tonne</u>
Pre-Lay Mash	\$370
Late Lay Mash	\$378
Hi-Lay Super Mash	\$385
Hi-Lay Super Pellet	\$391
Hi-Lay Super Crums	\$391
Hi-Lay Super Crums P.G.	\$397
Hi Lay Supreme Mash	\$396
Hi-Lay Supreme Pellet	\$402
Hi-Lay Supreme Crum	\$402
Broiler Starter Crum	\$611
Broiler Finisher 1 Pellet	\$566
Broiler Finisher 2 Pellet	\$551
Broiler Finisher 3 Pellet	\$533
Broiler Breeder Starter Crums	\$469
Broiler Breeder Grower Crums	\$381
Broiler Breeder Layer Crums	\$415

Technik Products:

Roxolin	
Feed additive for laying poultry and growth promotion in pigs	\$88 per 10 kg

Pig Rations

NRM Feeds Ltd: (Delivery within Canterbury included at \$15 per tonne bulk)

	<u>Bulk per tonne</u>
Pig creep crumbs	\$785
Pig Starter meal/pellets	\$537/\$548
Pig Flexiwean meal/pellets	\$502/\$513
Pig rapid grow meal/pellets	\$418/\$429
Pig early finisher meal/pellets	\$389/\$400
Pig breeder meal/pellets	\$364/\$375
Dry Sow pellets/nuts	\$349
Lactating Sow pellets/nuts	\$396

Supastock Feeds:

	<u>40kg sack</u>	<u>Bulk per Tonne</u>
Pig Starter	\$26.35	\$563
Pig Weaner	\$23.00	\$480
Pig Grower	\$19.50	\$392
Pig Finisher	\$16.95	\$328

Pig Feed Components:

- Proteins - Meat and bone meal - average \$400 per tonne
 - Dried blood - \$800 per tonne
- Grain - Barley - Contracted and delivered \$225 to \$232 per tonne
 - Pea (2nds) - \$360 per tonne
- Other byproducts - Fish (Chile) \$995 per tonne
 - Skim milk \$1,700 per tonne
- Vegetable feedstuffs - Soya meal \$670 per tonne
 - Soya oil \$1,662 per tonne
- Other feedstuffs - L-Lysine \$5,300 per tonne
 - D-L Methionine \$6,600 per tonne

Technik Products:

- Porcstart - colostrum gel for use as a high energy base to support suckling of new born piglets - 80cc \$46.90
- Raspberry flavour - supplement for inclusion in pig feeds - 25 kg \$425

Dog Feeds

Tux: Dog biscuits	10 kg	\$18.81
	20 kg	\$37.19
	40 kg	\$63.44
Meaty bites	20 kg	\$32.00

Hay and Straw (For contract hay baling see *Section 2.4.1.*)

Depends on area, season and quality.

Summer 1995/96 prices for average/good quality bales were approximately as follows:

Canterbury

		<i>Conventional</i>	<i>Big Round Bale</i>
		<i>(10 to 15 bale equivalent)</i>	
Hay:	Meadow	\$2.50 to \$4.50	\$25 to \$40
	Lucerne	\$4.00 to \$6.00	\$40 to \$60
Straw:	Ryegrass	\$1.00 to \$1.50	\$12 to \$22

Hawkes Bay

Hay:	Meadow	\$3.00 to \$3.30	\$30 to \$45
	Lucerne	\$7 to \$7.50	-
Standing	\$1.50	-	-

Taranaki

Hay:	Behind Baler	\$5.00 to \$5.50	\$75 to \$90
	Standing	\$2.50 to \$3.00	-
Silage	Baled	\$50 to \$60	

Waikato

Hay:	Behind baler	\$6.00	\$50 to \$70
	Standing	\$3.00	-

Southland

Hay:	Behind baler	\$3.50 to \$4.00	-
	Standing	\$1.00 to \$1.50	-
Silage	Baled		\$30 to \$50
	Standing	8c to 10c per kg DM	

Grazing Fees

Payment for grazing varies according to the class and age of livestock, the time of year, seasonal conditions and the district. Rates for 1995/96 are approximately:

Dairy Cattle

Calves (weaning to May)

Bay of Plenty: \$3.00 to \$3.50 per head per week.

Taranaki: \$3.75 and Canterbury \$3.00 per head per week respectively.

In the Waikato grazing for Friesian calves costs 85c per kg of liveweight gain.

Yearling heifers (May to May)

Bay of Plenty: \$4.50 to \$5.00 per head per week or if on a liveweight gain basis \$5.60 to \$6.50 (e.g. 250 kg for the 12 month period).

Waikato: Friesians \$1.25 to \$1.35 per kg of liveweight gain, Jerseys up to \$1 per kg of liveweight gain.

Hawkes Bay: \$4.50 per head per week and Taranaki \$5.75 per head per week.

Canterbury: \$0.90 to \$1.10 per kg of liveweight gain and Southland \$4.50 to \$5.00 per head per week.

Cows (winter)

Bay of Plenty: \$9 to \$12 per head per week.

Waikato: Friesians up to \$16 per head per week and Jerseys up to \$1.50 per kg of liveweight gain.

Taranaki and Southland: \$10 to \$12 per head per week.

Canterbury: \$6 to \$12 per head per week and in the Hawkes Bay grazing costs are approximately \$10 per head per week.

Sheep and Beef

		Cost per Head per Week:			
		<i>Canterbury</i>	<i>Southland</i>	<i>Waikato</i>	<i>BOP</i>
Sheep					
-summer	- ewes	20 to 50¢	20 to 50¢	60¢	-
-winter	- hoggets	50 to 60¢	65 to 75¢	-	-
	- ewes		50¢ to \$1.00	75 to 100¢	-
Breeding Cows		\$3 to \$6	\$6 (\$3 summer)	\$3.50 to \$5.00	\$5.00
Dry Cattle	- weaners	\$2 to \$5	\$3 (\$1 summer)	\$5.00 to \$7.00	\$3.00
	- steers	\$3 to \$5	-	-	\$4.00

Deer (Southland)

Hinds	- Red/Wapiti	\$3.00/\$4.50 per head per week
Stags	- Red/Wapiti	\$5.00 per head per week
Weaners	- Red/Wapiti	\$1.50/\$2.50 per head per week

Maize Silage-Buying In

Waikato farmers are paying about \$2,500 to \$2,600 per ha standing up to \$3,800 for excellent quality silage, for maize silage. Or 12 to 18¢ per kg of dry matter.

Animal Feeders*Agri-feeds Ltd:*

Agri-feeders	125kg	\$113.75
	250kg	\$131.25

Shoof International:

Pigs:

Meal Feeders	3 space	\$195
	4 space	\$229
	5 space	\$259
	6 space	\$299
Milk Feeders	3 space	\$75
	8 space	\$139
Waterers	- self filling, cast iron	\$52.95
	- for weaners	\$69

2.3.15 Wool and Shearing Expenses

Sheep Farmers are currently spending about \$2.72 per stock unit (South Island) and \$2.94 per stock unit (North Island) on shearing and shed expenses in total per year. These figures are based on total stock units wintered. The regional ranges are as follows:

Otago and Southland	\$2.40 to \$4.30
Canterbury and Northern South Island	\$1.25 to \$2.94
Northern North Island	\$2.31 to \$4.31
Lower North Island	\$2.35 to \$3.13

Source: MAF Farm Monitoring Report, January 1996.

Canterbury: When budgeting for shearing (full wool) costs, a figure of approx. \$1.62 per head may be used for the average contract situation. This figure takes account of an organisation fee, wages paid to shed hands etc, travel costs and levies. Actual costs will vary from farm to farm. See below for contract and "open" rates.

Shearing Rates

Note: Approximate range only. Travel has not been incorporated into these rates.

North Island: (per 100 sheep)

Contract Rates:

	Manawatu	Wairarapa	Wanganui
Full Wool	\$153	\$153-\$166	\$136-\$162
Lambs	\$148	\$144-\$158	\$144
Second shear ewes	\$38-\$73	\$149-\$162	-
Full belly crutch	\$77-\$81	\$70	\$74
Half belly crutch	-	\$61	-
Tail crutch	\$38	-	\$48

Open Shearing Rates:

Full Wool	-	\$79-\$87.50	\$79-\$83
Crutching	-	-	\$46
Second shear ewes	-	-	\$31
Half belly crutch	-	-	\$37

South Island: (per 100 sheep)

Contract Rates:

	Canterbury	Central Otago	Southland
Full Wool ewes	\$162	\$178-\$199	\$166
Lambs	\$153	\$158	\$156
Merino ewes	\$201	\$219	\$232
Merino wethers	\$232	\$241	\$232
Full belly crutch	\$81	\$79	\$79
Half crutch	\$78	\$74	\$79
Buttonhole crutch	\$57	\$61	\$54

Open Shearing Rates:

Full wool	\$96	-	\$99
Lambs	\$95	-	\$95
Full belly crutch	\$95	-	\$51

Blade Shearing (Canterbury):

Open:	Belly Crutched	\$118 per 100 sheep
	Crutched	\$131 per 100 sheep
	Full Wool	\$162 per 100 sheep
	Full Wool (merino wether)	\$136 per 100 sheep
Semi-Contract:	Belly Crutched	\$201 per 100 sheep
	Crutched	\$210 per 100 sheep
	Full Wool	\$219 per 100 sheep
	Full Wool (merino wether)	\$241 per 100 sheep
Full-Contract:	Belly Crutched	\$228 per 100 sheep
	Crutched	\$236 per 100 sheep
	Full Wool	\$245 per 100 sheep
	Full Wool (merino wether)	\$270 per 100 sheep

Other Shearing Costs are as follows: (Open)

Shed hand rate	\$11.81 per hour
Presser rate	\$11.81 to \$12.25 per hour
Classing rate	\$24.50 to \$33.25 per 100

Plant*Actoagriculture:*

Shear Leader electric shearing plant - single phase	\$1,433
Shear Leader electric shearing plant - three phase	\$1,400
Lister electric dagging plant with flexible tube	\$931
Lister 2 speed shearing plant with flexible tube	\$913
Nova dagging plant	\$920
12 Volt Nova dagging plant	\$793
Shogun handpiece	\$532
Laser deer clipper	\$653
Laser sheep shear	\$653

New Zealand Shearing Supplies:

Sunbeam Handpieces	- Supergrip	\$697.35
	- Regal Eclipse	\$712.35
Heiniger Handpiece	- Omega	\$748.30

Williams & Kettle Ltd:

Sunbeam super eclipse handpiece	\$595
Lister Shogun handpiece	\$515

Combs and Cutters*Actoagriculture:*

Combs:	
Standard Wide (Convex, straight sided comb)	\$30
Magnum plus	\$36.33
Lightning	\$36.33
Lister	\$36.33
Cutters:	
XL II	\$6.00
Colt narrow cutters	\$5.20

N.Z Shearing Supplies:

Sunbeam Combs		\$36 to \$42
Cutters	-Super AAA/ Big Gem Cutter	\$6.56
Lister Combs		\$35
Cutters	-XL II cutters	\$5.99
Heiniger Combs		\$38 to \$46

Williams & Kettle:

Combs:	\$36 to \$40
Cutters:	\$6 to \$8

Electric Grinders

Actoagriculture:

Double Ended electric grinder - single phase	\$1,433
Double Ended electric grinder - three phase	\$1,400

New Zealand Shearing Supplies Ltd.:

Heiniger - Double ended electric grinder	\$1310.88
Sunbeam - double ended electric grinder, complete 1 phase	\$1692.69
Lister - double ended electric grinder, complete 1 phase	\$1436.84
3 phase	\$1246.57

Emery Papers

Actoagriculture:

Ramshead Emery papers - fine/ coarse	\$5.53 to \$6.20
Ekamant emery papers - fine/ coarse	\$5.47

Heiniger (Allflex NZ Ltd):

Coarse	(10 Sheets)	\$60
Fine	(10 Sheets)	\$53.75

Woolpresses

Allflex NZ Ltd:

HSW - manual	\$3315
FM1 - hydraulic	\$5330
High Country - automatic pinning and no tramp, built-in electronic weighing system.	\$12,025
Super Press - automatic pinning, no tramp, 3 phase motor, built-in electronic weighing system.	\$14,040

Lyco NZ Ltd:

Diamond MKII 220V-2.25HP (low power draw)	\$7,780
Scales for Diamond (also for stock general use)	\$1,480
Power Tech 'S' 220V 3HP	\$11,400
Power Tech 'S' 10HP 3 Phase	\$12,190

Wool Tables

Lyco NZ:

Fleecemaster round standard	\$725
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Electronic Weighing Systems

Allflex N.Z. Ltd:

FX1 - suitable for weighing fleeces to cattle beasts	\$1170 to \$1326
Woolpress weighing platform - allows each bale to be weighed as it is pressed 200 x 840mm	\$422.50

Other Woolshed Expenses

Stencils: Numerals/Alphabet	\$17.95/\$31.95
Tally counters	\$14.00 to \$32.95
Hand Shears	\$40.95 to \$49.95
Footrot shears (serrated)	\$58.95
Trolleys; Workmaster bag and bale trollies	\$322

Actoagriculture:

Spraymark - black stencil spray	\$7.07
0-9 Plastic number stencil	\$30.93
A-Z plastic letter stencil	\$56.87
Simple description stencil - 2/S, HGT, LBS, BIN, B/P, EWE	\$15.33
Extenda wool sweep - twist lock	\$30.67
Bale clips - 100 pack	\$5.40
- 300 pack	\$12.00
Bag and bale hooks, all sizes	\$11.20

Ashley Wool and Sack:

Packs (capless) - new (each)	\$5.50
- recycled (each)	\$3.50

New Zealand Shearing Supplies:

Bale Hooks	\$11.03
Bale Clips - container of 100	\$4.94
- container of 300	\$11.81
Hand Shears - dagging, plain / with stops	\$29.00 / \$35.09
- sheep shears, plain / with stops	\$36.49 / \$42.13
Stencil blocks	\$5.43
Spraymark	\$6.96
Wool Sweeps	\$15.01 to \$42.66

Shoof International;

Hand Shears - general purpose	\$22.95
- 'Ritchey Tagg' - dagging	\$39.95
- straight	\$48.95
- curved	\$49.95

Williams & Kettle Ltd:

Woolbale hooks	\$11.20 to \$17.95
Woolshed broom	\$19.95
Bale clips, pack of 500, Maspro	\$19.95
Tally counter	\$19.95
Shearing glue, 250ml	\$6.90
Moccasins	\$31
Comb strop	\$15.45
Pendulum - Heiniger	\$105.50
Grinder Disc	\$299

Fleece Testing Charges

S.G.S. Wool Testing Services: (Timaru)

Testing of Side Samples:

Yield and Micron (water scoured for yield; fibre diameter by O.F.D.A.) -

1 to 100 samples - \$4.25 each

101 to 500 samples - \$3.50 each

More than 500 samples - \$3.00 each

(with histogram - 50 cents extra per sample)

Micron only (fibre diameter measured by O.F.D.A.) -

1 to 100 samples - \$3.25 each

101 to 500 samples - \$3.00 each

More than 500 samples - \$2.75 each

(with histogram - 50 cents extra per sample)

S.G.S. Wool Testing Services: (Wellington)

Core Testing for Certification:

Yield Test \$42.00 per sample

Yield and Fineness \$46.00 per sample

Lot Build \$5.00 per sample

Condition test for scoured wool or yarn \$30.00

Loose wool bulk \$27.00

Staple Length \$40.00

Wool Measurement Service - Lincoln University:

	Number of Samples		
	1-99	100-249	250+
Fleece Measurements:			
Yield and Micron (OFDA)	\$5.50	\$4.50	\$4.00
Micron (OFDA)	\$3.75	\$3.50	\$3.25
Predictive Colour	\$2.50	\$2.50	\$2.25
Bulk (Core and Loose)	\$5.75	\$5.25	\$5.00
Scoured Measurements:			
OFDA micron only	\$3.75	\$3.50	\$3.25
OFDA micron and yield	\$5.50	\$4.50	\$4.00
Yield and clean weight	\$4.25	-	-
Bulk (core and loose) only	\$5.75	-	-
Bulk in addition to yield or micron	\$3.25	-	-
Scoured colour only	\$7.50	-	-
Scoured colour in addition to yield or micron	\$5.00	-	-
Medullation score in addition to yield/ micron	\$1.00	-	-
OFDA curvature in addition to micron	}	0.50c (for all or any)	
OFDA spinning fineness in addition to micron			
OFDA medullation (opacity) in addition to micron			
OFDA distribution graphs of micron, curvature or medullation (opacity)			0.25c

Greasy Measurements:			
Yellow Predictive Colour	\$2.50	\$2.50	\$2.25
Staple Length	\$2.00		
Staple Strength	\$6.00		
Speciality Fibre Measurements:			
Micron, medullation and kemp by Projection Microscope			\$30
Unspecified Work:	Additional data analysis		\$20 per hour
	Other measurements		Please enquire

Wool Charges - See *Section 2.10.3* for "Farm to Auction" charges.

Fibre Testing Charges

Whatawhata Fibre Testing Centre:

Cashmere Diameter and Down Yield	\$17.50
Cashmere Down Yield	\$12.25
Cashmere Diameter	\$4.38
Cashmere Down Yield, Fibre Diameter, Scour yield	\$19.69
Wool Fibre Diameter	\$4.38
Fibre diameter and Washing yield	\$5.69
Wool Washing Yield	\$3.50
Wool Bulk and Yield	\$9.84
Wool Bulk and Fibre diameter	\$11.38
Wool Bulk only	\$8.75
Wool Diameter and Colour	\$6.56
Wool Colour and Yield	\$5.69
Wool Yield, Fibre Diameter and Colour	\$7.44
Wool Colour	\$5.69
Wool staple strength and Length	\$7.00
Wool staple length	\$2.19
Wool Scoured Yield, Colour, Bulk and Diameter	\$14.00
LotTst, Fibre Diameter, Colour, Yield	\$10.50
LotTst, Yield, Colour	\$30.63
Mohair yield, Diameter, Medullation, Kemp (full and yield)	\$19.69
Mohair Diameter, Medullation/Kemp	\$17.50
Mohair Medullation and Kemp	\$12.25
Mohair Diameter Only	\$4.38
Mohair Scoured Yield and Diameter	\$8.75
Mohair Scoured Yield	\$3.50
Warehouse Cashmere/Cashgora Bale/lot Test	\$25.38
Bale/lot Fibre Diameter	\$10.50
Bale/lot Scoured Yield	\$17.50
Bale/lot Mohair FD, Medullation, Scoured yield	\$25.38
Bale/lot Mohair Diameter	\$10.50
Bale/lot Medullation/Kemp	\$17.50

Full Test: Down yield, diameter, colour (full test report)	\$15.00
Down Yield and Colour	\$10.00
Fibre Diameter and Colour (full test report)	\$4.00
Fibre diameter (flock listing): minimum of 20 samples submitted	\$4.00
Full Test plus scoured yield (Mohair only)	\$18.00

Fibre Handling and Classing Charges - see *Sections 2.10.3 and 2.10.4*

2.3.16 Stock Management

Lambing Equipment

Actoagriculture:

Pritchard lamb teat - fluttervalve	\$2.27
- standard	\$1.87
Chestnut shepherds crook	\$26.73
Aluminium shepherds crook,	\$20.67
Tethering peg	\$7.33 to \$10.60

Mating Management Aids

Donaghys:

Stafix Ram/Goat Harnesses	\$23.00
Crayons - Soft	\$3.07 each

Tailing and Marking Requisites

Allflex NZ Ltd:

The Elastrator Instrument	\$35.00
Castration and Docking System	\$61.50

Electro-Tek Engineering:

Earmarker -sheep	\$81 to \$155
-cattle	\$104 to \$167
Docking Rings (500 per packet)	\$8.40

Shoof International: (freight included)

Earmarkers; Medium to large	\$60 - \$98
Triangle	\$119
Small	\$29.95
Baby pig ear notcher	\$42.95
Shepherds Crook	\$45
Rubber rings -100 pack	\$3.50
-500 pack	\$14.95
Castration Ring Applicator	\$24.95

Ear Tags

Leader Products (N.Z.):

Two Piece Flexible - prices vary with size of tag:

	<u>Price per Piece</u>	
	Plain	Stamped
Male - sizes M1 to M5	31¢ to 51¢	42¢ to 68¢
Female - sizes F1 to F5	25¢ to 65¢	47¢ to 80¢
Bell tag	51¢	67¢

	<u>Price per 100 tags</u>				
	Plain	Lettered 1 side	Lettered 2 sides	Numbered and name	Numbered only
Leader tags	\$16	\$24	\$25	\$25	\$24
Multitags	\$16	\$24	-	\$26	\$24
Swiveltags	\$17	\$30	\$35	\$35	\$30



LEADER EARTAGS

**LEADERMATIC SHEEP TAG APPLICATOR
and the original LEADER SHEEP TAGS . . .
THE PERFECT COMBINATION IN TAGGING**

TWO PIECE

FLEXIBLE

*Ideal for Beef and Dairy
Cattle, Goats, Pigs, Deer
and Stud Sheep.*

LEADER PRODUCTS (N.Z.)

P.O. Box 12-464, Penrose, Auckland

277 Church Street, Onehunga, Auckland.

Telephone: (09) 634 2026 Facsimile: (09) 634 4570

Leader's in the field!

Allflex NZ Ltd:

All prices are for stamped tags:

	Price per tag	Pack size	Pack price
Farmacy Brass Tag	32¢	25	\$8.00
Farmacy Kurl Lock	32¢	25	\$8.00
Farmacy Nickel	50¢	25	\$12.50
Goat/Hog female	55¢	25	\$13.75
Hi VU	\$1.66	25	\$41.50
Large female	73¢	25	\$18.25
Large male	79¢	25	\$19.75
Maxi female	92¢	25	\$23.00
Medium female	55¢	25	\$13.75
Medium male	59¢	25	\$14.75
Racemaster	34¢	100	\$34.00
Sheep female	37¢	25	\$9.25
Sheep male	42¢	25	\$10.50
Ultra large female	80¢	50	\$40.00
Ultra large male	85¢	50	\$42.50
Ultra medium female	59¢	50	\$29.50
Ultra medium male	63¢	50	\$31.50

Ear Tag applicators and accessories

Allflex NZ Ltd:

Ultra tagger applicator	\$28.94
Ultra-matic applicator	\$56.72
Retract-o-matic applicator	\$56.72
Total tagger applicator	\$28.94
One Shot applicator	\$54.57
Roto tagger applicator	\$15.60
“Rapid Fire” Fleximatic applicator	\$78.00

Leader Products (N.Z.):

Standard Applicators (for type 1 and 2 systems)	\$20
New Flexomatic (for type 1 system only)	\$68
Leader tags applicator	\$50
Standard Leader applicator pliers	\$38
Multitag applicator	\$20
Swivel tag applicators	\$25

Docking Pens

Wire Makers Ltd:

Complete Pen with Single Side Race 2.4m x 2.4m	\$453.75
Complete Pen with Double Side Race	\$532.25
- extra panel, 2.4m	\$66.10
- extra panel with drafting gate, 3 m	\$96.00

Bull Leaders

Electro-tek Engineering Ltd:

\$21 - \$46

Scales and Platforms (See also fleece and bale weighers, *Section 2.3.13*)

Allflex NZ Ltd:

Electronic Weighing Systems:

FX1 - suitable for weighing fleeces to cattle beasts \$1170 to \$1326

FX11 - provides additional statistical information e.g. averages, max/min
\$1323 to \$1508

FX31 -2 screen display, memory can store up to 255 mob files \$2403.55 to \$2617

Steel cattle platform 600 x 2100mm \$504.78

Alloy cattle platform 600 x 2000mm \$572

Agrisales:

Indicator with battery AG700-01/02/03 \$667/\$1339/\$1800

Standard 2000 kg and 3000 kg loadbars (pairs) \$868 and \$1540

Cattle Platform \$609

Printer 230V \$642

Prattley Engineering:

(South Island prices. Prices are slightly higher in the North Island)

Sheep weigh crate with 3 way draft \$1015

3 way autodrafting sheep crate \$8756

Wiremakers: Hayes

Weighing Platform - Sheep/Pig/Deer \$794

Weighing Platform - 1500 kg scale \$1411

Animal Crushes and Crates

Allflex NZ Ltd: (Donalds)

Crush - Head Bail Automatic \$1510.13

Crates - Non-draft sheep crate, front and rear doors, fits loadbars \$780

- Two-way drafting crate, auto closing and opening rear door,
fits loadbars. \$986.70

- Three-way drafting crate, fits loadbars \$1040

- Calf crate, automatic trip action, suits loadbars \$1050

Easybail Enterprises Ltd:

Galvanised Bail \$1430

Painted \$1295

Race Gate \$452

Painted \$410

Heenan Workshop: Canterbury (1995 prices)

Two options available both involving the Heenan Workshop Gold Series Model

- Purchase standard model for \$5600 - PTO driven but will require extension hose kits for between work room and hydraulic source.

5m hose length	\$170
10m hose length	\$260
15m hose length	\$350
 - Purchase standard model and a power pack, either
 - Petrol motor power pack \$1650
 - Electric motor power pack \$1130But will possibly also require extension hose kits as listed above.
- A semen collection facility can be added into the deer handler for \$500.

Pregnancy Diagnosis/Back fat/Rib Eye Sonography

(See Section 2.4.8 for charges if a contractor is used)

Canbay Pig Development Co.

Renco Leanmeater back fat tester	\$1250
Renco PT 1 pregnancy tester	\$915
Renco PT 2 pregnancy tester	\$595

Medtel

Aloka SSD-500, veterinarian ultrasound machine	\$25,000
Aloka SSD-210 DXII, portable linear ultrasound system	\$9,000
Aloka UST-5813, electronic linear transrectal probe 5MHz	\$10,000
Aloka UST-588U-5, high density linear probe 5MHz	POA
● Pregnancy diagnosis (horse/deer/cattle)	
● Horse tendon scanning	
● Ovia ultrasound (horse/deer/cattle)	
● Back Fat/Rib Eye sonography (sheep/deer/pig)	

Dog Trainers

<i>Agtronics:</i> electronic dog trainer - single unit	\$718
- dual unit	\$1233
- hire rate, per week	\$40.00
Voice recognition bark collar	\$199.50
Vibration bark collar	\$165.75

Cowsling

Shoof International;

Daisy Lifter	\$225
Hip Clamp - Economy	\$199
Anilift - heavy duty PVC	\$669

Calving Aids

Shoof International:

Calving chains	\$34.95 to \$146.50
Ropes	\$18.50 to \$29.95
Obstetric Eye Hook (6cm and 8cm)	\$29.95 and \$32.95
Rope Threaders - heavy stainless steel	\$42
Calf Pullers-HK E11	\$325
HK E20	\$450
HK E21	\$695
Calving Jack	\$550

Calf Covers

Palmer Canvas and Synthetics Ltd:

		<u>Number</u>	
		10	50
Polyethylene Fabric	\$90	\$413	\$765
Polyethylene Fabric Lined	\$124	\$588	\$1115
Canvacon Fabric	\$122	\$563	\$1020

PCL Feeds:

Calf covers	\$8.50 each
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Shoof International;

Foil Canvas	\$69
Thermal cover - 'Super'	\$119

Straitline Canvas Ltd:

	<u>Length</u>	<u>Number</u>		
	<u>Wither to Tail</u>	10	50	100
Animac Polyethylene Calf Covers	400/650 mm	\$74	\$305	\$570
Deluxe Calf Covers	800mm	\$91	\$382	\$713
	1100mm	\$132	\$569	\$1063
Jute Calf Covers	650mm	-	\$591	\$1118
	1100mm	-	\$888	\$1679

Horse Shoeing

Standard Hack	- Includes Shoes	\$40 to \$60
Draught Horse	- Includes Shoes	\$130

Saddles and Covers

Stock saddles	\$350 to \$2500
General Purpose saddles	\$199 to \$2400
Indian stock and snaffle bridles	\$29.95 to \$49.95
Horse covers - summer	\$79.95 to \$119
- winter	\$79.95 to \$185

2.4 CONTRACTING CHARGES

2.4.1 Hay Making

Some examples of contractors' charges are as follows:

Taranaki:

Mower/conditioner		\$109 per hour
Tedding/raking		\$48 to \$61 per hour
Baling	Conventional	\$0.86 per bale
	Large Round (15 bale equivalents)	\$11.30 per bale
	Large Round (1.2m diameter)	\$8.75 per bale
	(1.4m diameter)	\$9.19 per bale
	(1.5m diameter)	\$9.63 per bale

Waikato:

Baling	Small square	\$0.70 per bale
	Large Round bales - 10 small bale equivalents	\$7.00 per bale
	- 12 small bale equivalents	\$9.45 per bale
	- 14 small bale equivalents	\$9.80 per bale
Mowing		\$105 per hour
Raking		\$57 per hour

In the **Hawkes Bay**, typical contracting rates are 70 to 74¢ per conventional bale, \$8 per big square bale (8 to 10 small bale equivalents) and \$9.19 for a 12 to 14 bale equivalents sized bale.

Canterbury:

The following are the charges of one Canterbury contractor.

Baling:

Conventional Bales		\$0.74 per bale
Medium Squares (10 to 12 bale equivalent)		\$7.44 per bale
Round Bales (2 metre)	\$9.19 to \$9.63 (net wrap)	per bale
Mower Conditioner		\$30.26 per hectare

2.4.2 Silage

Charged in several different ways depending on contractor.

In **Canterbury**, one contractor charges \$61 per load which is approximately equivalent to 4 to 7 tonnes depending on wilt, this includes choppers, trucks and loaders. Another contractor charges \$8.75 to \$10.50 per tonne to put into a stack, the price excludes the cost of covering.

Baled Silage - some typical contractor rates are \$14.44 for round individually wrapped bales. Tube wrapping \$11.38 plus \$5.25 per bale for wrap and \$12.25 to \$13.13 per bale for a round bale tube wrapper.

Other contractor charges are \$263 to \$503 per hour depending on the machine used. This equates to \$2.45 to \$2.84 per cubic metre. This price includes 2 trucks, a loader, a rake, a tractor and chopper.

In the **Waikato**, one contractor charges \$0.80 per small bale equivalent. The bales are in three different sizes of

- 10 small bale equivalents \$8 per bale
- 12 small bale equivalents \$9.45 per bale
- 14 small bale equivalents \$11.03 per bale

\$109 per hour is charged to compact silage in a pit with a tractor.

Another contractor charges \$333 per hour where the farmer is responsible for mowing and covering the silage. For maize silage to harvest and stack \$336 per hectare is charged.

Taranaki:

Wrapped silage

- 1.2 diameter bale \$7 to \$8.75 per bale
- Tube wrapped silage \$6.13 per bale plus \$61 per hour for loading and gathering the bales.

Another contractor charges \$16.54 per bale for a 10 small bale equivalent sized bale or \$118 per hour for pit silage.

2.4.3 Cultivation

Typical contractor's rates are as follows:

Canterbury	<u>Rate per hectare</u>
Ploughing	\$52.50
Plough and roll	\$54.25
Chisel plough	\$20.13
Chisel plough and harrow	\$22.31
Chisel plough and power harrow	\$27.56
Grub	\$20.13
Grub and harrow	\$22.31
Grub and power harrows	\$28.00
Power harrows	\$12.69
Direct drill	\$46.38
Minimum till drill	\$38.50
Conventional drill	\$29.75
Heavy roll	\$14.88
Mousetail	\$13.13

One **Waikato** Contractor charges the following for cultivation work,

- Hoeing \$96 per hour
- Rotor Tilling \$70 per hour
- 3 in 1 (hoe, seed, roll) \$52.50 per hour
- Under sowing maize \$57 per hour
- Ripping \$17.50 per hour

Another contractor charges the following:

- Cultivation (includes hoeing, ripping and power harrowing) \$254 per hectare
- Planting maize \$64 per hectare
- Side dressing maize \$54 per hectare

Typical **Hawkes Bay** contracting rates:

Ploughing	\$72 per hectare
Discing and rolling	\$39 per hectare
Power Harrowing	\$76 per hectare
Rotary hoeing	\$79 per hour
Inter row cultivation of squash	\$43 per hectare
Side dressing squash or maize	\$47 per hectare
Toplifting carrots	\$26 per tonne
Planting - squash	\$77 per hectare
- sweetcorn	\$77 per hectare

Typical **Taranaki** contract rates are as follows:

Ploughing	\$83 to \$105 per hectare
Drilling	\$66 per hectare
Rolling	\$74 per hectare
Roller Drill	\$66 per hectare
Rotary Hoeing	\$87.50 per hectare
Panorating	\$74 per hour
Roller Tilling	\$57 per hectare
Power Harrowing	\$87.50 per hour

2.4.4 Windrowing

In the **Waikato** contractor charges are about \$57 per hour.

In **Taranaki** rates for windrowing are \$48 to \$61 per hour.

2.4.5 Heading

The following are contract prices for one **Canterbury** contractor.

Header Only	\$299 per hectare
Lifter Work (e.g., grass seed and peas)	\$126 per hectare
Header and truck	\$127 per hectare
Heading, trucks, put in silo	\$143 per hectare
Clover	\$164.50 per hectare

Rates vary with the type and quality of crop and the tonnage expected from it (i.e. the lower price is for crops on light soils with low yields). Smaller size paddocks and heavier crops are charged at the higher rate. Allowance should be made for travelling time for trucks, labour and for bagging. Surcharge for work on hill country is taken into account in the higher price range.

In the **Hawkes Bay** an average rate for harvesting is \$184 per ha for small grain and \$192.50 per ha for maize.

2.4.6 Oversowing

Waikato: Aerial seeding with a helicopter, \$131 to \$262.50 per tonne is charged depending on application rates and area sown.

2.4.7 Dipping

Sheep Dipping (*Canterbury*), 28 to 35c per head for application only depending on numbers. With chemical included - depending whether full fly protection, part or none and only lice 52c to \$1.20 per head.

2.4.8 Pregnancy Diagnosis / per Muscle and Fat Detection

Stockscan:

Cattle	- less than 100 stock	\$1.70 per head
	- greater than 100 stock	\$1.60 per head

60¢ per km is charged to the nearest main centre and a setting up fee is charged if there is less than 50 stock.

Sheep	- wet, dry, ageing(500 to 700 per hour)	30¢ per ewe
	- multiple births (300 to 400 per hour)	50¢ per ewe dries/singles/twins 60¢ per ewe/triplets

Deer	- Realtime Ultrasound, pregnancy testing for deer	\$1.31 per head
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Muscle and Fat Detection

Eye muscle depth only	\$2.00 per head
Eye muscle area (width x depth)	\$2.50 per head
Eye muscle area and fat measure	\$3.00 per head
Fat measure only	\$1.00 per head
Small mobs (20 to 50 per hour)	\$15 per hour

2.4.9 Miscellaneous Contracting

Canterbury:

Gorse cutting	\$41 per hour
Shelter Belt Trimmers	\$86 per hour
Digging of offal pits trenches drains etc. (minimum of 1 hours work required)	
● 12 tonne machines	\$61 per hour
● 4.5 tonne machines	\$52.50 per hour

Waikato:

Effluent Spreading	\$68 per hour
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Gisborne:

Excavator	\$65 per hour
Dozer	\$53 per hour
Trenching, includes excavator and bulldozer for backfilling	\$2.50 per metre
Digger	\$75 per hour

Note: Fencing Contractor rates see *Section 2.19.1*

Shearing rates see *Section 2.3.15*

Fertiliser spreading charges see *Section 2.6.3*

Spraying costs see *Section 2.9.16*

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:

	Dairy Farms (Per cow costs)	Sheep and Beef Farms (Total Farm costs)
Northern North Island	\$22.86 to \$26.63	\$1,700 to \$3,300
Lower North Island	\$22.70 to \$24.38	\$1,200 to \$4,800
Canterbury and Northern South Island	\$18.06 to \$24.08	\$1,622 to \$5,500
Otago and Southland	\$20.00	\$1,800 to \$4,300

Source: M.A.F. Farm Monitoring Report, January 1996.

2.5.2 Regional Charges

Manawatu - Central Power:

Domestic Customers:

	Network Connection (c/day)	Anytime Variable (c/unit)	Controlled Variable (c/unit)	Night Variable (c/unit)	Daytime Variable (c/unit)
Standard contract-	57	10.7	8.6		
Economy 8 contract-	62		8.6	3.8	11.9

Variable contract - all units 19.8c/unit, minimum charge of \$19.50 per month applies.

Non-Domestic:

	Network Connection (c/day)	Anytime Variable (c/unit)	Controlled Variable (c/unit)	Night Variable (c/unit)	Day Variable (c/unit)
Standard contract-	65	11.6	8.6	-	
Economy 8 contract-	70		8.6	3.8	13

Medium Customers: (>15kva 400v General Supply) - Line Prices

Network Capacity - Monthly demand

\$6.30/kva/month

Transmission - Monthly demand

\$6.20/kva/month

Large Customers: (Customers with dedicated transformers)

	11kv Supply First Mva (\$/kva/month)	11kv Supply Subsequent kva (\$/kva/month)	400v Supply (\$/kva/month)
Network Capacity			
• Annual Contract Capacity	5	3.88	5.30
• Transformer Charge	0.40	0.40	
Transmission Charge			
• Annual Contract Capacity	2.50	2.50	3.10
• Winter Demand	2.72	2.72	2.80

Canterbury - Southpower Farm Tariffs.

General Business:

	Supply Charge (c/day)	Day Units (c/unit)	Interruptible Units	Night Units
BB1 Business unlimited	29.244	13.149	-	-
BN1 Nightsaver 11pm to 7 am	29.244	13.535	-	4.338
BD1 Daysaver 2 hr max.	29.244	13.149	9.866	-
BD2 Daysaver plus 4 hr max.	29.244	13.149	8.596	-
BO1 Open 24 hr	60.000	14.236	-	5.600
BW1 Weekender 9pm to 7am	60.000	14.236	-	8.462

Irrigation Rates:

Standard Irrigation (IA1)	Capacity charge	12.932 cents (per kilowatt per day)
	Capacitor rebate	6.455 cents (per kva per day)
	Unit charge (first 500 hours)	7.304 cents
	Unit charge (after 500 hours)	4.962 cents
Alternative Irrigation (IB1)	Capacity charge	6.466 cents (per kilowatt per day)
	Capacitor rebate	6.455 cents (per kva per day)
	Unit charge (first 500 hours)	14.466 cents
	Unit charge (after 500 hours)	4.962 cents

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 m, then prices start to level out.

2.6 FERTILISER AND LIME

2.6.1 Fertiliser

BOP Fertiliser Limited:

Price per tonne bulk

Supergro Phosphate Fertilisers:

N	P	K	S		<i>Mt Maunganui</i>
0	9	0	12	Superphosphate	\$159.24
0	15	0	7	Super Plus	\$292.31
0	13	0	0	Reactive Rock	\$166.24
0	12	0	7	Reactive Rock + S	\$171.34

Potash Fertilisers

0	8	8	10	15 % Potash Super	\$190.45
0	7	10	10	20% Potash Super	\$199.51
0	6	15	8	30% Potash Super	\$217.54
0	5	25	6	50% Potash Super	\$253.69
0	12	10	5	20% Potash Super Plus	\$305.96
0	9	8	7	15% Potash RPR	\$196.42
0	9	15	0	30% Potash RPR	\$222.48
0	0	50	0	Muriate of Potash	\$349.17

Sulphur Fertilisers

0	8	0	20	Sulphur Super 20	\$169.28
0	7	8	17	15% Potash Sulphur Super	\$199.28
0	6	15	14	30% Potash Sulphur Super	\$225.83
0	4	25	10	50% Potash Sulphur Super	\$260.80
0	0	0	100	Durasul	\$396.55
0	7	0	30	Sulphur Super 30	\$171.08

Magnesium Fertilizers:

N	P	K	S	Mg		
0	7	0	9	5	Serpentine Super	\$155.53
0	6	8	8	4	15% Potash Serpentine Super	\$187.31
0	5	15	6	4	30% Potash Serpentine Super	\$214.96
0	3	25	4	3	50% Potash Serpentine Super	\$251.84
0	8	0	11	5	Magphos	\$190.19
5	4	5	12	3	Crop Fertilizer	\$210.53
0	7	8	9	5	15% Potash Magphos	\$221.40
0	6	15	7	5	30% Potash Magphos	\$248.49
0	0	0	0	52	Magnox	\$434.66

An investment with growing returns.



A small investment in N-Rich Urea will quickly pay back big returns in improved crop and pasture performance. A good reason to call your local merchant now to place your order.

Petrochem
N
RICH
Urea

CALLING PETRO 3000



The High Performer

NPKS Pasture and Crop Fertilisers

5	7	0	15	Ammoniated Super	\$197.30
4	5	12	12	Pasture 4	\$235.66
6	6	6	13	Pasture 6	\$218.51
18	20	0	2	DAP	\$533.54
11	15	0	13	DAP Sulphur Super	\$388.57

Nitrogen Fertilizers:

46	0	0	0	N-Rich Urea (bagged)	\$464.12
46	0	0	0	N-Rich Urea (bulk)	\$464.12
21	0	0	24	Sulphate of Ammonia	\$268.73

Special Mixtures:

To obtain an approximate price for a mixture when incorporated at the rates below, add the mixture price of the additive shown to the base fertiliser price.

	Quantity per tonne	Add per Tonne
Boron	25kg	\$44.00
Copper Sulphate	12.5kg	\$28.50
Selenium (Selcote Ultra)	1.5kg	\$5.75
Magnox	50 kg	\$16.00
Cobalt Sulphate	0.5kg	\$16.60
Molybdenum	50g	\$8.50

Special mixtures despatched in less than 4 tonne quantities will incur a surcharge.

Dominion Chemicals Ltd.:

Solid Fertilisers:

<u>Product</u>	<u>Unit</u>	<u>Cost</u>
Ammonium Nitrate	tonne	\$1160
Ammonium Sulphate	25kg	\$30.00
Blood and Bone	50 kg	\$51.50
Calcium Nitrate	tonne	\$984
Diammonium Phos.	tonne	\$1776
Dolomite	50 kg	\$27.50
General Purpose	50 kg	\$31.00
Gypsum Fine	25kg	\$10.50
Gypsum Coarse	25kg	\$10.50
Lime	40kg	\$7.20
Magphos	50 kg	\$25.00
Monoammonium Phos.	tonne	\$1795
Monopotassium Phos.	50 kg	\$141
Potassium Nitrate	50 kg	\$55.50
Potassium Sulphate	50 kg	\$55.00
Super Phosphate	50 kg	\$22.00
Urea	40kg	\$35.20

Trace Elements:		
Ammonium Molybdate	25kg	\$1116.00
Borax Pentahydrate	25kg	\$36.50
Borax Solubor	25kg	\$123.00
Boric Acid	25kg	\$48.00
Calcium Chloride 74%	25kg	\$23.75
Cobalt Sulphate	25kg	\$795.80
Copper Hydroxide	tonne	\$1440.00
Copper Sulphate	25kg	\$52.50
Iron Sulphate	50 kg	\$20.00
Kieserite	25kg	\$28.50
Magnesium Sulphate	tonne	\$654.00
Manganese Oxide	25kg	\$36.00
Manganese Sulphate	25kg	\$32.50
Salt Coarse	tonne	\$342.00
Salt Medium	tonne	\$342.00
Selcote Ultra	25kg	\$107.50
Selenium Prills	25kg	\$54.00
Shandong 60 mesh (Magnesium Oxide)	tonne	\$499.20
Shandong .2-3mm	tonne	\$502.80
Sodium Molybdate	25kg	\$892.75
Sulphur Prills	tonne	\$804.00
Zinc Sulphate	25kg	\$26.25

Chelates:

Powders:		
Calcium 10%	20kg	\$421.80
Cobalt 14%	1kg	\$90.60
Copper 14.5%	20kg	\$398.80
Iron Chelate 13.2%	20kg	\$291.80
Magnesium 6%	20kg	\$331.80
Manganese 12%	20kg	\$363.80
Zinc 14%	20kg	\$308.40
Liquids:		
Calcium 3%	20 litre	\$148.00
Copper 6.5%	20 litre	\$192.00
Magnesium 2.5%	20 litre	\$116.00
Manganese 5%	20 litre	\$130.00
Zinc 6%	20 litre	\$142.00

Specialty Items:

Gibberellic Acid	12g	\$70.20
Nitric Acid	35kg	\$72.12
Phosphoric Acid 85%	35kg	\$58.80
Potassium Hydroxide	25kg	\$57.50
Potassium Permanganate	1kg	\$5.00
Silver nitrate	100g	\$60.00
Zeolite Coarse	25kg	\$10.00
Zeolite Fine	25kg	\$18.75
New slow release, 24% Cu (suitable for trace elements in fertiliser or animal feeds)		
\$1200 (bulk) per tonne		

Farmers Fertiliser Ltd:

Note: For bagged product, add \$45 per tonne.

					<u>Price per tonne bulk</u>	
					<i>Whangarei</i>	<i>New Plymouth</i>
<i>Supergro Fertilisers</i>						
N	P	K	S			
0	9	0	11	Superphosphate	\$172	\$168
0	7	0	8	Reverted Superphosphate	\$143	\$147
0	5	0	5	Super Lime 1/1	\$113	\$119
0	13	0	0	RPR - North Carolina	\$173	\$173
0	7	8	9	15 Potash Super	\$201	\$197
0	7	10	8	20 Potash Super	\$209	\$205
0	6	15	7	30 Potash Super	\$225	\$221
0	5	25	5	50 Potash Super	\$258	\$254
0	0	50	0	Muriate of Potash	\$355	\$353
21	0	0	24	Ammonium Sulphate	\$293	\$288
46	0	0	0	N-Rich 25	\$515	\$515
6	7	0	12	Nitroboost 25	\$204	-
6	6	6	12	Crop	\$227	\$224
4	5	12	10	Dairy Pasture Mix	\$248	\$241
28	0	0	0	Calcium Ammonium Nitrate	\$489 (bagged)	-
<i>High Analysis Fertilisers</i>						
18	20	0	2	Di-Ammonium Phosphate	\$525	\$525
12	5	14	3	Nitrophoska Blue	\$633	\$618
12	10	10	1	Nitrophoska 12-10-10(bagged)	\$644	\$604
0	0	40	18	Sulphate of Potash (bagged)	\$613	\$608
0	0	0	99	Durasul Sulphur Prills	\$393	\$425

Fluid Fertilisers NZ Ltd.:

N	P	K	S	Type	Size	Price
9	5	6	0	Reaction	20 litre/200 litre	\$95/\$730
5	4	11	0	Reaction	20 litre/200 litre	\$95/\$730
0	14	4	4	Reaction	20 litre/200 litre	\$95/\$730
0	6	9	5	Reaction	20 litre/200 litre	\$115/\$900
0	8	4	6	Blood and Bone Formula	20 litre/200 litre	\$105/\$780
0	8	3	6	Fish formula	20 litre/200 litre	\$85/\$630
10	0	3	6	Solfert	20 litre/200 litre	\$65/\$380
0	8	4	9	Solfert	20 litre/200 litre	\$65/\$425
				Super Seaweed	20 litre/200 litre	\$55/\$980
0	0	0	14	Super Sulphur	20 litre/200 litre	\$95/\$730
				Qualigrass	20 litre/200 litre	\$80/\$580
				Tracemol	25 litre/200 litre	\$144/\$950

Harquest:

Liquid Fertilisers:

Tall-Gro, Bio-Gro certified concentrated liquid fish fertiliser. \$300 per 200 litre drum plus freight if outside the Nelson region.

Gro-Tech 2000. Concentrated liquid fish base with added carbohydrates, amino acids and humates. NPK 8 3 3 \$400 per 200 litre drum plus freight if outside the Nelson region.

Hortlink Marketing Ltd:

Blood and Bone	50 kg	\$31.50
Dolomite Lime	25 kg	\$7.88
Sulphate of Iron	25 kg	\$17.08

Liquid and soluble fertilisers:

N	P	K	S			
10	2	6	1	Nitrophoska foliar	5 litres	\$36.65
10	10	27	0	Phostrogen	3.9kg	\$39.49
20	30	20	0	Schultz Instant All Purpose	11.3kg	\$90.03
10	60	10	0	Schultz-Instant Bloom	11.3kg	\$102.21

Liquid Cut Flower Food/Preservative:

Schultz Instant	3.78 litre concentrate	\$39.50
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Controlled Release Fertilisers :Nutricote

16	4.4	8.3		3-4 month release Standard	25kg	\$113
13	5.7	10.8+TE		3-4 month release + Trace Elements	25kg	\$126.63
18	4.4	8.3		8-9 month release Standard	25kg	\$113
13	5.7	10.8+TE		8-9 month release + Trace Elements	25kg	\$123.63

Livestock Supplies (N.Z.) Ltd.:

Trace Elements;		
Boron 25kg		\$32
Copper Sulphate 98% Free flowing		\$49.50
Copper Sulphate 98% Standard		\$43.75
Maganese Sulphate, fert grade		\$32.50
Hepto Zinc		\$25
Mono Zinc		\$35
Zinc Oxide		\$118.75
Magnesium Supplements;		
Calcined Magnesite, dusting	25kg	\$14.25
Cal Mag, superfine plus,	20kg	\$20.50
Magnesium Sulphate Epsom Salt	25kg	\$17.50
Magnesium Chloride	25kg	\$18.75
Clacined Magnesite	25kg	\$13.50
Swede & Kale Mix:		
Swede Mix	40kg	\$14.70
Double Boron Swede Mix	37kg	\$21.20
Kale Mix	40kg	\$11.75
All Swede and Kale mixes contain Boron, Cal Mag, Zinc, Copper and Selenium.		
Cobalt/Selenium:		
Livestock Supplies 1-year Selenium	25kg	\$37.00
Selcote Ultra	25kg	\$76.00
Cobalt Sulphate	25kg	\$712.50

Ravensdown Fertiliser Co-Operative Ltd:

Notes: Approximate retail prices (for bulk) are given.

For bagged product in 50 kg bags add \$41.60 per tonne

Phosphorus and sulphur availability information and trace element quantities are provided at the end of this price list.

Pastoral Fertilisers:

N	P	K	S		<u>Price per tonne bulk</u>		
					<i>Awatoto (Napier)</i>	<i>Hornby (Chch)</i>	<i>R'bourne (Dunedin)</i>
0	9	0	12	Superphosphate	\$160	\$162	\$158
0	21	0	1	Triple Super	\$416	\$418	\$412
0	15	0	15	TSP 15 S (15% Sulphur)	\$350.10	-	-
13	16	0	13	DAP 13 S (13% Sulphur)	\$435.25	-	\$411.65
0	13	0	1	N.C.Reactive Phosphate Rock	\$165	\$170	\$141
0	7	0	9	Drilling Super	-	-	\$141
0	7	0	9	Serpentine Super	-	-	\$141
0	13	0	1	R.P.R. 8 S (8% Sulphur)	\$171.70	-	-
0	11	0	11	R.P.R. 11 S (11% Sulphur)	\$172.60	-	\$167.33
0	11	0	11	R.P.R. 11 S + Cobalt (1.5kg)	\$215.87	-	-
0	10	0	17	R.P.R. 17 S (17% Sulphur)	\$174.94	-	\$170.47
0	11	0	11	R.P.R./Sulphur Super	\$170.45	-	\$167.33
0	9	0	12	Boron Super	\$185.40	\$187.35	\$184.75
0	9	0	12	Cobalt Super (1.5kg)	\$207.28	\$209.28	\$205.36
0	9	0	12	Molybdate Super (500g)	-	\$175.63	\$171.66
0	9	0	12	Molybdate Super (250g)	\$168.82	\$170.82	\$166.83
0	9	0	12	Selenium Super (4kg)	-	\$171.52	-
0	9	0	12	Selenium Super (2kg)	\$170.28	-	\$168.28
0	8	0	20	Sulphur Super	\$168.60	\$170.80	\$165.10
0	7	0	28	Sulphur Super Extra	\$174.35	\$176.80	\$168.98
0	5	0	50	Maxi Sulphur Super	\$183	\$186	\$173.50
0	8	0	20	Moly Sulphur Super	-	\$180.43	\$174.76
0	7	0	28	Moly Sulphur Super Extra	-	\$180.42	\$178.64
0	8	0	20	Sulphur Super + Selenium	-	-	\$171.38
0	7	0	28	Sulphur Super Extra + Selenium	-	-	\$175.26
0	7	0	33	33% Sulphur Super	-	-	\$170.53
0	8	8	10	15% Potash Super	\$186.50	\$188.50	\$183.90
0	7	10	10	20% Potash Super	\$194	-	-
0	6	15	8	30% Potash Super	\$209	\$211	\$205.80
0	5	25	6	50% Potash Super	\$239	\$241	\$235.00
0	6	15	8	30% Potash Moly Super (500g)	-	\$220.63	-
0	6	15	14	30% Potash sulphur Super	-	\$214.36	\$207.97
0	6	8	7	15% Potash Serpentine Super	-	-	\$163.50
0	0	50	0	Potassium Chloride	\$334.90	\$336.90	\$328.90
7	5	7	14	Higro	\$229.21	-	-

YOU DON'T HAVE TO LOOK FAR TO FIND NEW ZEALAND'S TOP QUALITY FERTILISERS

- | | | |
|----------------|----------------|------------------|
| 1. Winton | 27. Methven | 48. Pongaroa |
| 2. Edendale | 28. Rakaia | 49. Pahiatua |
| 3. McNab | 29. Dunsandel | 50. Mangatainoka |
| 4. Kaitangata | 30. Leeston | 51. Feilding |
| 5. Clinton | 31. Whataroa | 52. Tapuata |
| 6. Inverteil | 32. Darfield | 53. Ormondville |
| 7. Clydevale | 33. Amberley | 54. Waipukurau |
| 8. Milton | 34. Cheviot | 55. Marton |
| 9. Lawrence | 35. Waiau | 56. Aramoho |
| 10. Heriot | 36. Kaikoura | 57. Waverley |
| 11. Lumsden | 37. Hokitika | 58. Raetihi |
| 12. Mossburn | 38. Stillwater | 59. Ohakune |
| 13. Outram | 39. Ikamatua | 60. Taihape |
| 14. Alexandra | 40. Westport | 61. Utiku |
| 15. Oturehua | 41. Takaka | 62. Wairoa |
| 16. Ranfurly | 42. Blenheim | 63. Gisborne |
| 17. Palmerston | 43. Taratahi | |
| 18. Alma | 44. Manakau | |
| 19. Oamaru | 45. Koputaroa | |
| 20. Kurow | 46. Shannon | |
| 21. Waimate | 47. Himatangi | |
| 22. Fairlie | | |
| 23. Hinds | | |
| 24. Mayfield | | |
| 25. Ashburton | | |
| 26. Tinwald | | |



Ravensdown Fertiliser
Co-operative Limited

RAVENSBOURNE WORKS: PO Box 499, Dunedin. Tel 0-3-471 0511, Fax 0-3-471 0640

SEADOWN WORKS: PO Box 409, Timaru. Tel. 0-3-688 2097, Fax 0-3-688 2095

HORNBY WORKS: PO Box 16 081, Hornby, Christchurch. Tel. 0-3-349 6189, Fax 0-3-349 9174

NELSON WORKS: PO Box 3028, Richmond, Nelson. Tel. 0-3-544 6109, Fax 0-3-544 4879

AWATOTO WORKS: Private Bag, Napier. Tel. 0-6-835 5469, Fax 0-6-835 3268

CREATIVE 7889

Cropmasters:

18	20	0	2	Cropmaster DAP	\$514	\$516	\$508
20	10	0	13	Cropmaster 20	\$411.50	\$413	\$415.50
18	8	18	0	Cropmaster 18	-	-	\$436.85
15	10	10	8	Cropmaster 15	\$413.30	\$415	\$407.30
13	14	15	1	Cropmaster 13	\$456.80	-	\$450.80

Ammo-Phos:

11	22	0	1	Ammo-Phos MAP	\$530	\$532	\$526
9	19	7	1	Ammo-Phos/Hycrop	\$530	\$503	-
8	15	15	1	Ammo-Phos/Hycrop	\$468	\$468.40	\$463.40
8	12	22	1	Ammo-Phos/Hycrop	\$431	-	-
8	15	15	1	Ammo-Phos/Hycrop Pea Fert.	-	\$477.56	-

Nitrophoska: (\$ per tonne for bags)

12	10	10	1	Nitrophoska	\$563	\$565	\$559
12	5	14	3	Nitrophoska Blue TE	\$552	\$554	\$547
12	5	14	5	Nitrophoska Blue Extra	\$1,055	\$1,007	\$1,007
15	4	13	5	Nitrophoska Permanent (slow release, 25kg bags)			\$3.08/kg

Potash Gold (Potassium Sulphate blends):

15	10	10	12	Potash Gold	\$459.80	\$461.30	-
14	7	14	6	Potash Gold	\$478.25	-	-
8	15	13	6	Potash Gold	\$528.30	\$530	-
0	7	8	13	20% Potash Gold Super	\$234.20	\$236	-
0	6	15	14	35% Potash Gold Super	\$286.85	-	-
0	0	42	18	Potassium Sulphate (granular)	\$511	\$512	-

Nitrogen Fertilisers:

21	0	0	24	SULF-N45 (granular ammonium sulphate)	\$301	\$302	\$295
21	0	0	24	Ammonium Sulphate (standard)	-	\$241	\$234
26	0	0	14	Ammonium Sulphate Nitrate	\$362	\$363	\$357
27	0	0	0	Calcium Ammonium Nitrate (\$/tonne for bags)	\$425	\$427	\$420
46	0	0	0	N-Rich Urea	\$453	\$456	\$456

Horticultural Fertilisers

					<u>Price per tonne, bagged</u>		
N	P	K	S	Mg	<i>Napier</i>	<i>Nelson</i>	
0	0	0	23	0	Zinc Sulphate (Monohydrate)	\$1,234	-
0	0	0	13	10	Magnesium Sulphate	\$544	\$590
0	0	0	22	16	Kieserite	\$691	\$689
0	0	0	0	11	Dolomite	\$288	\$147.37
13	0	38	0	0	Potassium Nitrate (crystalline)	\$965	\$1,011
0	0	0	23	0	Ferous Sulphate 19% Fe	\$482	-
0	0	0	13	0	Manganese Sulphate 32% Mn	\$806	-
0	0	0	0	55	Calcined Magnesite	\$433	\$453

					<u>Prices per tonne, bulk</u>	
16	4	16	4	0	Asparagus Fertiliser	\$425.79
11	3	11	10	0	Berryfruit Fertiliser	\$352.75
7	3	17	8	0	Hop Fertiliser	\$286.82
12	2	14	9	0	Kiwifruit Fertiliser	\$390.33
15	0	18	8	0	Kiwifruit Fertiliser No P	\$445.25
7	4	7	16	12	Market Garden Fertiliser	\$296.49
10	2	10	6	2	Orchard Fertiliser	\$277.41
10	2	5	7	2	Orchard Low K	\$264.30
6	3	12	7	1	Orchard Low N	\$257.01
0	0	0	0	0	Lime	\$56.00
0	0	0	18	0	Calcium Sulphate (Gypsum)	\$218.00

Liquid Fertilisers:

N	P	K	S		<u>Price per tonne, bulk</u>
20	0	0	0	Liquid Nitrogen	\$352.55
7	2	4	1	Liquigro Foliar	\$657.63
6	1	6	1	Liquigro Trickle	\$392.44
3	0	6	0	Liquigro Tomato No.1	\$388.93
6	0	6	0	Liquigro Tomato No.2	\$489.72

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:		<i>Total P</i>	<i>Cit.sol.P</i>	<i>PAP</i>
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.

<u>Trace Element</u>	<u>Form of Additive</u>	<u>Additive per tonne</u>	<u>Element per ha</u>
Boron	Sodium borate	25kg per tonne	0.94 kg B per ha
Cobalt	Cobalt sulphate	1.0kg per tonne	0.053kg Co per ha
Copper	Copper sulphate	25kg per tonne	1.56 kg Cu per ha
Selenium	Sodium selenate prills	4kg per tonne	0.01 kg Se per ha
Molybdenum	Sodium molybdate	0.25kg per tonne	0.025kg Mo per ha
Magnesium	Calcined magnesite	80kg per tonne	11 kg Mg per ha

Rural Research Limited:

Liquid Fertilisers - Nitrosol Liquid Blood and Bone fertiliser.

N	P	K	S	Name	Quantity	Price
8	3	6	2	Nitrosol	5 litre	\$41.25
8	3	6	2	Nitrosol	20 litre	\$120
8	3	6	2	Nitrosol	60 litre	\$315
8	3	6	2	Nitrosol	200 litre	\$800
(North Island)						
8	3	6	2	Nitrosol	200 litre	\$850
(South Island)						
8	3	6	5	Nitrosol + S	200 litre	\$820
(North Island)						
8	3	6	5	Nitrosol + S	200 litre	\$870
(South Island)						

The prices detailed above include the cost of freight from the factory to local merchants throughout New Zealand.

Southfert Co-op Ltd:*Southfert Phosphate Fertilisers:*

N	P	K	S		<u>Bulk Price</u> (per tonne)
0	9	0	11	Superphosphate	\$163.90
0	20	0	1	Triple Super	\$389.06
0	15	0	6	HIP	\$281.74
0	14	0	1	Reactive Phosphate Rock	\$174.51

Southfert Potash Fertilisers:

0	7	7	9	15% Potash Super	\$191.98
0	6	15	8	30% Potash Super	\$214.97
0	0	50	0	Muriate of Potash	\$339.98
0	0	40	17	Sulphate of Potash	(bagged) \$796.33

Southfert Sulphur Fertiliser:

0	8	0	22	22% Sulphur Super	\$172.74
0	7	0	33	33% Sulphur Super	\$176.38
0	4	0	50	50% Sulphur Super	\$181.79
0	10	0	17	Tussock	\$178.05
0	11	0	11	Double Eleven	\$176.18

Southfert Magnesium:

0	7	0	9	5	Serp. Super/Drilling	\$148.20
0	6	7	8	4	Turnip Fertiliser	\$178.67
0	6	7	8	4	15% Potash Serp. Super	\$178.67
0	5	15	6	4	30% Potash Serp. Super	\$204.98
0	6	0	20	4	Serpentine Gold	\$161.30

Southfert Special Mixtures:

0	9	0	11	Moly Super 300gms Mo per tonne Super	\$174.93
0	9	0	11	Cobalt Super 1.5kg per tonne	\$215.38
0	9	0	11	Copper Super 25kg per tonne	\$201.86
0	9	0	11	Selenium Super 2kg per tonne	\$175.76
0	9	0	11	Boron Super 50kg per tonne	\$219.65

High Analysis:

18	20	0	1	Southcrop DAP	\$509.60
20	10	0	13	Southcrop Green	\$411.01
16	8	10	10	Southcrop Blue	\$397.28
14	15	13	1	Southcrop Pink	\$471.64
9	10	25	1	Southcrop Yellow	\$428.48
21	0	0	24	Ammonium Sulphate	\$305.03
11	10	0	13	Triple Boost	\$340.00
46	0	0	0	N Rich Urea	\$446.78

Trace Elements:

	Pack Size	Price
Cobalt Sulphate	25kg	\$774.33
Copper Sulphate	25kg	\$40.00
Zinc Sulphate	50kg	\$43.28
Selcote Ultra Selenium	25kg	\$86.15
Calcined Magnesite	25kg	\$12.60
Fertiliser Borate FB48	25kg	\$31.92
Granular Borate	25kg	\$32.49
Sulphate of Iron	50kg	\$35.07
Ulexite	25kg	\$23.49

Watkins N.Z. Ltd.:

N	P	K	S	Mg		Price per 50kg
27	0	0	0	0	Calcium Ammonium Nitrate	\$32.17
18	20	0	2	0	Diammonium Phosphate	\$35.59
11	3	7	16	2	TE Grange	\$24.71
0	0	50	0	0	Muriate of Potash	\$28.46
12	5	14	3	1	TE Nitrophoska Blue TE	\$40.60
12	10	10	1	0	Nitrophoska 12.10.10	\$40.09
0	7	8	9	5	Potash Magphos 15%	\$23.80
0	6	15	7	5	Potash Magphos 30%	\$21.53
0	0	0	20	15	Kieserite	\$41.00
0	0	25	18	6	Patent Kail	\$52.23
21	0	0	24	0	Sulphate of Ammonia	\$22.85
0	0	40	17	0	Sulphate of Potash	\$44.21
0	9	0	12	0	Superphosphate	\$19.16
16	0	10	19	0	TE Turf Extra	\$25.50
7	7	0	0	0	Blood and Bone(40kg)	\$34.00

Slow release fertilisers;

Magamp (22.75kg bag)	\$115.35
15gram fertiliser tablets (10kg bag)	\$73.50

Water soluble fertilisers;

Plant Starter (25kg bag)	\$100.00
Potash Special (25kg bag)	\$100.00

Organic Fertilisers;

Simply Organic-granules/pellets (25kg)	\$11.80
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Yates New Zealand Limited:

Slow Release Fertilisers

N	P	K	Name	Pack Size	Price
31	0	0	IBDU 3 in 1 granular	25kg	\$106
17	7.3	14	Multicote (111)	25kg	\$88
24	3.4	13	Multicote (312)	25kg	\$88
12	3	5	IBDU Woodace	15kg	\$111
20	4	4	Yates Plant Tabs	10kg	\$81

Soluble Fertilisers

31	4	8	Microfeed 311	10kg	\$49
16	3	27	Microfeed 214	10kg	\$49
			Solubor 20.5% Boron	5kg	\$40
			Solubor 20.5% Boron	25kg	\$111

2.6.2 Lime*Austin Chalk Co Ltd:* (Canterbury)

	<u>\$ per tonne</u>
Agricultural Lime	\$15
Horticultural Lime	\$140
Quick Lime - Hydrated	\$180

Hatuma Lime Co. Ltd: (Feilding)

	<u>\$ per tonne</u>
Agricultural Lime	\$16.50
Cropfine Lime	\$20.00

McDonald's Lime Ltd: (Otorohanga)

	<u>Price</u>
Agricultural Lime - bulk per tonne	\$15.00
- 1 tonne bulk bags	\$60
- 25kg bags	\$70
Supplimate Lime flour - bulk, per tonne	\$20
- 1 tonne bulk bags	\$70
- 25kg bags	\$80

Parkside Quarries Ltd: (Oamaru)

Agricultural Lime \$15 per tonne (bulk price, ex works Weston)	\$15.00
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2.6.3 Fertiliser Spreading/Application Costs

Ground Spreading

N.T. Wealleans Ltd: (Waikato)

<u>Rate kg per ha</u> (cwt per acre)	<u>Rate per tonne</u>
60 (0.5)	\$80.86
125 (1.0)	\$43.09
250 (2.0)	\$33.23
370 (3.0)	\$25.56
500 (4.0)	\$24.22
625 (5.0)	\$22.35
750 (6.0)	\$21.32
1250 (10.0)	\$13.39
2500 (20.0)	\$11.05

Typical Spreading Rates - Canterbury and Waikato

Canterbury:

Typical rates range from \$3.33 to \$3.50 per hectare with a precision spreader costing approximately \$11.38 per hectare. An additional \$1.09 may be charged for steeper land.

Waikato:

<u>Rate (kg/ha)</u>	<u>Cost (per tonne)</u>
under 250	\$6.56/ha
250	\$24.50
300	\$21
310	\$22.75
375	\$17.50 to \$19.25
437	\$ 19.25
500	\$15.75 to \$17.50
562	\$ 17.50
625	\$14 to \$15.75
687	\$ 15.75
750	\$12.25 to \$14.88
810	\$14
1000	\$10.50
1250	\$8.75
2500	\$7

Aerial Spreading:

The cost of aerial spreading of fertiliser varies greatly and depends very much on the location and condition of the airstrip and the rate of application. Most firms prefer to quote for individual situations rather than publish fixed rates. For the aerial spreading (fixed wing) of superphosphate, the following are approximate costs.

North Island contractor:

400HP Fletcher	\$500 per hour
Super	\$26 to \$38 per tonne
Lime (discount if over 500 tonne)	\$19 to \$25 per tonne

Willow Air (N.Z.) Ltd:

Super \$550 per hour
Selenium \$1 per hectare (extra)

Helicopter work

Helicopter Spreading \$100 to \$300 per tonne
(Depending on application rate and area)

2.6.4 Testing of Soil, Water, Plant and Feeds

Agriculture N.Z.:

Consultancy Soil Fertility and Fertiliser Recommendation.

Charging for this service may vary from district to district. However, the following may be used as an approximate guide:

Prices range from \$98.00 (one sample per property) to \$590.00 (10 samples per property) with additional samples costing \$45.00 each. Service includes soil test and fertiliser advice according to crop or pasture type etc. These prices apply where the farmer collects the soil samples and delivers them to an Agriculture NZ office.

AgResearch Laboratory Analyses

Soil Test Profiles

Basic Soil Test : - pH, Ca, P, K, Mg, Na,S, an indication of the basic fertility of a soil through the measurements of major available nutrients, acidity and estimates of cation and anion storage capacity, and bulk density \$50.00

Soilless Media Test - NH₄, NO₃, pH, Ca, K, Mg, Na, Soluble Salts. A measure of available nutrients, acidity (pH) and soluble salts in a glasshouse soil. \$52.50

Glasshouse Soil Test - pH, P, Ca, K, Mg, Na, Soluble Salts. A measure of major available nutrients, acidity and soluble salts in a glasshouse soil. \$57.90

Basic Test PLUS:Anion Storage Capacity and Organic Sulphur - an indication of the soil capacity to retain phosphate and sulphur, \$74.75

Organic Sulphur - a measure of the organic sulphur reservoir in the soil.

Note: Prices include free *lablink* overnight post back to laboratory. Volume discount available on 10 or more samples = 10%

Agriculture:

Super Animal Health Profile - N, P, S, Mg, Ca, Na, K,Mn, Zn, Cu, Fe, Mo, Co, Se.

To provide major and all trace element analyses relating to animal nutritional requirements. \$74.25

Animal Health Profile - N,P, S, Mg, Ca, Na, K, Mn, Zn, Cu, Fe, Mo.

To provide major and trace element analyses relating to animal nutritional requirements. \$60.75

Suspected Copper Deficiency - Cu, S, Fe, Mo. To provide the analytical data required to diagnose the potential copper deficiency of livestock. \$33.75

Mixed Pasture Nutrition

Individual or Additional Soil Analyses:

Soil Acidity (pH)	\$7.00
Phosphate	\$7.00
Total Phosphorus	\$15.00
Sulphur	\$10.00
Cation Storage Capacity	\$24.00
Phosphate Retention	\$7.00
Soluble Salts	\$7.00
Mineral Nitrogen - NH ₄ , NO ₃	\$15.00
Nitrate - NO ₃	\$10.00
Reserve K	\$24.00
Soil Texture Analysis	\$58.00
Preparation fee of \$10 charged on samples submitted for individual elements only.	

Plant Analysis Profiles:

Agriculture

Super Animal Health Profile - N,P,Mg,Na,Mn,Zn,Cu,Fe,Mo,Co,Se	\$66.00
(To provide major and all trace element analyses relating to animal nutrition requirements)	
Animal Health Profile - N,P,S,Mg,Ca,Na,K,Mn,Zn,Cu,Fe,Mo	\$54.00
(To provide major and trace element analyses relating to animal nutritional requirements)	
Suspected Copper Deficiency (livestock) - Cu,S,Fe,Mo	\$30.00
(To provide the analytical data required to diagnose potential copper deficiency)	
Mixed Pasture Nutrition - N,P,S,Mg,Ca,K	\$30.00
(To determine the major elements in mixed pasture relating to fertiliser nutrition)	
Clover or Lucerne - N,P,S,Mg,Ca,K,Mn,Zn,Cu,Fe,B,Mo	\$54.00
(To provide the major and trace elements analysis of legumes, their nutritional requirements and the requirements of the nitrogen fixing rhizobial bacteria)	
Cereal Nutrition Profile - N,P,S,Mg,Ca,K,Mn,Zn,Cu,Fe	\$42.00
(To determine the major and trace elements in cereals which are required for their nutrition and the production of high quality grain)	

Horticulture

General Profile - N,P,S,Mg,Ca,Na,K,Mn,Zn,Cu,Fe,B	\$48.00
(A complete major and trace element analysis suite relating to the nutrition of horticultural crops)	
Vegetables - N,P,S,Mg,Ca,K,Mn,Zn,Cu,Fe,B,Mo	\$54.00
(A complete analytical suite covering all major and trace elements relating to the nutrition of vegetable crops)	
Kiwifruit - N,P,S,Mg,Ca,Na,K,Mn,Zn,Cu,Fe,B,Cl	\$57.00
(A complete analytical suite covering all major and trace elements relating to the nutrition of kiwifruit)	

Feed Quality Analysis Profiles:

Hay and Pasture	\$45.00
(Analysis for crude protein,estimation of metabolisable energy and digestibility)	

Meals and Compound Feeds	\$55.10
(Analysis for fibre, crude protein, estimation of metabolisable energy and digestibility)	
Silage	\$99.10
(Analysis for pH, true dry matter, crude protein, fibre, free ammonia, estimation of metabolisable energy and digestibility)	
Nutrient Profile: Individual elements or profiles the same as those for plant analysis are available (refer to plant analysis price list for details).	

Water Analysis Profiles:

Domestic Water Chemistry Profiles	\$68.00
(Analysis of pH conductivity, alkalinity, chloride hardness, dissolved solids, CO ₂ , Ca, Mg, Fe, Mn, Cu, Zn, and nitrate nitrogen)	
Profile as above plus Microbial	\$103.00
Horticultural water profile	\$73.00
(Analysis as in domestic water chemistry profile to ascertain the suitability for use as irrigation supply).	
Profile as above plus Microbial	\$108.00
Individual element or additional water analysis	\$5.00 to \$15.00

Analytical Services Laboratory (a division of R.J.Hill Laboratories Ltd.)

Soil:

Basic Soil Analysis	- bulk density, pH, P, K, Ca, Mg, Na, cation exchange capacity, base saturation.	\$34
Special Soil Analyses-	soluble salts, phosphate retention, organic matter, available	
Nitrogen, sulphate	- sulphur, reserve magnesium, aluminium, boron	\$10 each
	- resin, P, organic S, total N, total P	\$14 each
	- reserve K	\$17 each

Nutrient Solutions:

Basic Solution Analysis	- nitrate-nitrogen, P, K, S, Ca, Mg, Na, Cl, Fe, Mn, Zn, Cu, B, pH, conductivity	\$38
Special Solution Analysis	- Mo, silica, ammonium-nitrogen	\$10 each

Growing Media:

Basic Media Analysis	- pH, conductivity, nitrate-nitrogen, ammonium-nitrogen, P, K, Ca, Mg, Na.	\$38
Special Media Analysis	- trace element's (DTPA-extractable Fe, Mn, Zn, Cu, B)	\$30
	- physical analysis (air filled porosity and water holding capacity)	\$30
N.D.I.		\$70
Toxicity		P.O.A.

Plants:

Basic Plant Analysis - N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, B.	\$57
Special Plant Analysis	
- Mo, Co, Se, sulphate-sulphur, Cl, Al, nitrate-nitrogen.	\$10 each
- I	\$14

Feedstuff:

Basic Feedstuff Analysis - DM, protein, fibre, ash, ME	\$75
Special Feedstuff Analysis - DM only, ash only, pH (of silage)	\$15 each
- ammonium-nitrogen (of silage)	\$20
- fibre only	\$25
- protein only	\$35
- soluble carbohydrate, or soluble carbohydrate and starch	\$50
- mineral analysis	P.O.A.

In order to derive metabolisable energy, a full analysis is required, therefore this result is only available as part of the basic analysis profile.

These prices apply to silages, hay and forage samples where the routine analysis methods used yield Relative Standard Deviations (RSDs) of typically 5%. For compound feeds or instances where a high precision analysis is required then alternative procedures should be used.

2.7 FREIGHT AND CARTAGE

2.7.1 Road Transport Rates

Road Freight rates are normally dependent on both 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.

The publication of this list is intended as a guide only, each operator determines their own rates on parameters according to their individual costs.

(i) General Freight:

Estimated January 1996 rates (\$ per tonne unless otherwise stated):

	10	30	40	<u>km</u> 50	60	70	80
General Goods	\$19.69	\$32.57	\$38.00	\$42.82	\$47.40	\$51.34	\$54.43
Bagged Lime and Fertiliser	\$16.36	\$25.06	\$28.70	\$32.16	\$35.59	\$38.86	\$49.86
Bulk Lime	\$6.87	\$11.10	\$13.01	\$14.78	\$16.59	\$18.00	\$19.43
Bulk Fertiliser	\$10.77	\$19.10	\$23.07	\$26.66	\$30.22	\$33.36	\$36.28
Wool (per bale)	\$3.94	\$6.01	\$6.98	\$8.01	\$8.92	\$9.75	\$10.29
Bulk Grain	\$11.35	\$18.68	\$21.85	\$24.55	\$27.07	\$29.40	\$31.61
Metal	\$12.13	\$24.50	\$29.67	\$35.23	\$40.72	\$46.36	\$51.90

(ii) Small Goods Rates:

Weight	up to 16km	17 to 32km	33 to 48km	49 to 64km	over 64km
up to 32 kg	\$6.73	\$6.73	\$6.73	\$6.73	\$6.73
102 kg	\$6.73	\$7.33	\$7.99	\$10.03	\$12.44
508 kg	\$14.94	\$20.02	\$24.96	\$29.89	\$34.05
965 kg	\$24.00	\$32.32	\$39.96	\$47.41	\$54.77

(iii) Stock (dollars per head):

	10	30	50	<u>km</u> 70	100	130	160
Store lambs	\$0.5	\$0.90	\$1.20	\$1.47	\$1.78	\$2.06	\$2.34
Prime lambs	\$0.62	\$1.03	\$1.35	\$1.61	\$1.97	\$2.32	\$2.67
Hoggets	\$0.67	\$1.11	\$1.48	\$1.80	\$2.20	\$2.54	\$2.91
Store sheep	\$0.73	\$1.19	\$1.60	\$1.97	\$2.41	\$2.77	\$3.13
Fat sheep	\$0.75	\$1.30	\$1.79	\$2.24	\$2.87	\$3.42	\$3.88
Weaner cattle	\$3.29	\$5.79	\$7.88	\$9.37	\$12.45	\$14.30	\$15.75
Yearlings	\$3.91	\$7.01	\$9.73	\$12.06	\$15.10	\$17.29	\$18.88
18 mth cattle	\$5.10	\$8.92	\$12.57	\$15.20	\$18.44	\$20.84	\$22.80
2 Year cattle	\$6.05	\$10.59	\$14.28	\$17.85	\$22.54	\$25.55	\$27.99
Prime cattle	\$6.59	\$11.85	\$16.50	\$20.59	\$25.89	\$29.41	\$31.90
Deer	-	-	\$5.05	\$7.06	\$9.08	\$10.09	\$11.35

(iv) Timber:

See Section 2.22.3 for costs of transportation of timber.

2.7.2 Railway Transport Rates

Railfreight rates are confidential and are normally dependent on the type of goods, the size of the consignment and the distance involved.

2.7.3 Inter-Island Ferry Freight Rates

These freight rates can vary greatly and are confidential to *Tranz Rail Ltd.* For budgeting figures either contact a transport company to ask for costings or *Trans Rail Ltd.*, who may quote direct or recommend a transport company. The rates can vary according on the goods being freighted, the amount and often the customers ongoing business relationship is considered.

2.7.4 Air Freight Rates

Air New Zealand: Overnight Domestic Rates quoted

Minimum of 20 kg: ex Christchurch

To Timaru, Oamaru, Westport, Hokitika, Greymouth	\$0.90/kg
To Rest of South Island	\$1.50/kg
To Wellington and Palmerston North	\$1.65/kg
To Rest of North Island	\$1.90/kg

Minimum of 20 kg: ex Auckland

To Rotorua, Whangarei, Hamilton, Tauranga, Taupo	\$0.90/kg
To Rest of North Island	\$1.50/kg
To Christchurch	\$2.30kg
To Nelson, Blenheim	\$2.50/kg
To rest of South Island	\$2.80/kg

Delivery Options -

For each piece or for every 20kg (whichever is greater) the price is:

9.30am delivery	\$2.50
12.00am and 2.00pm deliveries	No Charge
(Auckland, Wellington and Christchurch only)	

International Rates quoted ex Christchurch and Auckland

Destination	Foodstuffs (per kg)				Flowers/Bulbs/Seeds (per kg)		
	Normal Rate/kg	100kg min	250kg min	500kg min	1000kg	45kg min	100kg min
Sydney	\$4.22	\$2.24	-	\$1.43	-	\$2.09	-
Melbourne	\$4.22	\$2.24	-	\$1.43	-	\$2.09	-
Brisbane	\$4.22	\$2.24	-	\$1.43	-	\$2.09	-
Perth	\$7.48	-	\$2.49	\$2.19	-	\$3.50	-
Singapore	\$12.87	\$3.23	-	\$2.90	\$2.75	-	\$3.53
Hong Kong	\$14.18	\$3.15	\$3.01	-	\$2.78	\$3.97	-

London	\$18.60	\$5.00	-	-	-	\$5.55	\$5.16
Los Angeles ¹	\$18.31	\$4.64	-	-	\$4.43	\$4.17	(250kg)
Los Angeles ²	\$17.46	\$4.14	-	-	\$3.93	\$3.67	(250kg)
Tokyo	\$10.98	\$4.43	-	-	-	\$4.40	-

¹ Ex Christchurch

² Ex Auckland

Note: For Courier Services see *Section 2.15.3*

2.8 SEEDS AND PLANTS

2.8.1 Seeds - Arable and Pasture

Grain

Approximate costs for seed grain are as follows:
(treated, certified, second generation)

Price

Wheat

Milling: Monad, Sapphire, Brock, Norseman \$762 to \$782 per tonne

Barley

Malting: Batan Vitaflo \$675 per tonne

Oats

Milling: Omih, White \$560 to \$575 per tonne

Greenfeed: Hatrick \$600 per tonne

Charisma (*Grasslands*) \$500 per tonne

Lupins Blue, White \$647.50 per tonne

Lentils Titore, Olympic, Invincible \$800 per tonne

Linseed \$1 per kg

Ryecorn \$503.13 per tonne

Maize

Various hybrids (treated) \$200 to \$230 per 25kg

Greenfeed \$1 to \$4 per kg

Peas

Feed, field and proprietary cultivars \$770 to \$1000 per tonne

For *Watties* Process Crop Seed Prices: (see also vegetable seeds later)

Peas \$1.18 to \$1.67 per kg

Whole Beans \$8.93 per kg

Broad Beans \$1.75 per kg

Italian Beans \$6.36 per kg

Green Beans \$6.36 per kg

Carrots \$64.00 per kg

Baby Carrots \$80.00 per kg

Seed is normally supplied by the Company and the cost deducted from final payout.

Pasture Seeds

Note: For cost of coated seed refer to *Section 2.8.2*

Ryegrass:

		<u>Price per kg</u>
Depending on cultivar and generation		\$1.71 to \$5.00
e.g	Nui	● basic \$2.36
		● Certified 1st generation \$2.01
	Concord	\$3.19
	Moata	\$2.98
	Yatsyn	\$4.68
	Embassy Perennial Ryegrass	\$4.00
	Exalta Italian Ryegrass	\$2.95
	Banks	\$5.00
	Cordura	\$3.81
	Ruanui	● basic \$2.63
		● Certified 1st generation \$2.01
		● Uncertified \$1.75
	Manawa	● 1st generation \$1.71
	Tama	● 1st generation \$2.23
	Italian	● uncertified \$2.19
	Dobson/Vedette (perennial)	\$3.70
	Ellett	\$3.55
	Impact (hybrid)	\$3.95
	Flanker (annual)	\$3.00

Grasslands Cultivars:

Greenstone Tetraploid Hybrid Ryegrass 'Endofree'	\$3.25
Greenstone Tetraploid Hybrid Ryegrass 'Endosafe'	\$4.10
Samson Perennial Ryegrass	\$4.50
Zero Nui Perennial Ryegrass	\$2.85

Cocksfoot:

Wana, Kara and Saborto (depending on generation)	\$5.38 to \$5.86
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Prairie Grass: (Matua)	\$3.15
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Gala Grazing Brome:	\$4.64
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Maru Phalaris:	\$8.65 to \$8.71
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Fescue:

e.g. Au Triumph (superstrike)	\$8.97
Advance (superstrike)	\$8.70 to \$9.98

Timothy:	Kahu	● Certified	POA
		● Uncertified	\$5.25
Crested Dogstail:			\$3.85
Browntop:			
			<u>Price per kg</u>
e.g.	Egmont		\$19.69
	New Zealand		\$4.16
Yorkshire Fog:	Melita		\$8.00
Clovers:			
White:	(depending on cultivar and generation)		\$6.00 to \$12.30
E.g.	Aran (large leaves)		\$9.50
	Prop		\$6.50
	Sustain		\$8.00
	Huia	● basic	\$7.39
		● 1st generation	\$4.73
		● uncertified	\$4.38
	Kopu	● superstrike	\$10.46
	Pitau	● 1st generation	\$9.45
	Tahora		\$6.83 (coated)
Red:	(depending on cultivar and generation)		\$5.90 to \$14.20
E.g.	Pawera	● basic	POA
		● 1st generation	\$14.18
		● uncertified	POA
	Hamua	● basic	POA
		● 1st generation	\$6.78
		● uncertified	\$5.91
	Turoa Mont Red	● 1st generation	\$7.96
		● uncertified	\$5.91
	Colenso (superstrike)		\$9.19
	Grasslands G27		\$13.10
Subterranean:	Wooгенellup		\$5.91
	Karridale		\$5.91
	Dalkeith		\$6.13
	Mount Barker		\$5.91
Alsike:			\$2.98

Refer to *Section 2.8.2* for cost of coated seed

Turf Seeds

		<u>Price per 25kg bag</u>
Ryegrass:	Allstar	● bare \$7.25
		● superstrike \$9.45
	Joust	● bare \$4.50
		● superstrike \$6.70
	Saturn	● bare \$5.34
	● superstrike \$7.74	
Fine Fescue:	Lobi	\$12.50 to \$14.70
	SR3100 - superstrike	\$25.50
	SR3200 - superstrike	\$32.00
	Chewings	\$7.40 to \$9.50
Browntop:	Egmont	\$15 to \$17.20
	N.Z.	\$7.00
Duraturf:	Park blend	\$4.75 to \$6.95
	Germinator	\$5.65 to \$7.85
	All purpose	\$8.80 to \$11.00
	Classic	\$12.50 to \$14.70

Price decreases as size of order increases.

Small Seeds

The following can only be a rough guide as the small seeds market is extremely variable, with almost daily fluctuations in prices. All prices are per kilogram of certified bare seed, for the 25kg packs.

Note: For cost of coated seed see *Section 2.8.2*.

		<u>Price per kg</u>
Rape:	Range of cultivars	\$1.62 to \$3.37
	Rangi	\$1.62
	Cert Giant Rape	\$1.75
	Wairangi	\$3.28
	Bonar	\$3.37
Swedes:	Highlander	\$6.91
	Other Varieties	\$6.78
Turnips:	Range of cultivars	\$5.78 to \$13.56
	York Globe	\$5.78
	Green Globe	\$5.78
	Appin	\$6.30
	Barkant	\$13.56
Kale:	Range of Cultivars	\$6.56 to \$9.80
	Gruner	\$8.58
	Kestrel	\$9.80
	Giant	\$6.56

	<u>Price per kg</u>
Forage Brassicas:	
Wairoa	\$5.34
Pasja	\$6.83
Winifred	\$5.03
Puna Chicory:	\$14.18
Lotus: Maku	\$15.00
Sunrise	\$13.00
Sheeps Burnett:	\$5.25
Lucerne: Range of cultivars	\$7.70 to \$14.79
e.g. WL320/WL322HQ	\$14.22
Grassland Otaio	\$14.00 to \$14.80
Uncert	\$7.70
WL 323	\$14.22
Forage Vetch: (Grasslands)	\$3.30

2.8.2 Coated Seed:

Prices shown are for coated seed (includes seed and the coating). Price ranges reflect the price differences between cultivars.

See also advertisement at front of Manual

Seed Coating - Drill

Seed coating can include insecticide/fungicide/N-fixing bacteria/Molybdenum/
Growth enhancement factors and bird repellency.

Coated Seed Ltd (Superstrike):

	<u>Seed/Coat ratio</u>	<u>\$ per kg</u>
Brassica	1:0.25	\$8.80 to \$19.30
Lucerne	1:0.25	\$9.10 to \$16.00
Ryegrass	no increase	\$3.90 to \$12.00
Clovers	1:0.75	\$5.50 to \$12.50

Seed Coating - Oversowing

Seed coating can include lime coat/fungicide/N-fixing bacteria.

Coated Seed Ltd:

	<u>Seed/Coat ratio</u>	<u>\$ per kg</u>
<u>Prillcote</u>		
Ryegrass	1:1	\$2.10 to \$3.75
Cocksfoot	1:1	\$3.90 to \$4.65
Clovers	1:0.75	\$3.45 to \$10.30
Lotus	1:0.75	\$8.95 to \$13.10

Seed Treatment - Drilling

Coated Seed Ltd

Grubbuster (specific grass grub control)

\$5.20 to \$17.30
(depending on type of seed)

The grass grub component equals \$70 per hectare at a 20kg per hectare sowing rate.

2.8.3 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. (*Yates N.Z. Ltd., Webling & Stewart*).

	Standard	Hybrid
Asparagus:		
Beans: Broad	\$113/25kg	
Dwarf French Beans	\$160-\$560/25kg	
Butter Beans	\$151/25kg	
Runner Beans	\$228-\$373/25kg	
Beetroot:	\$25-\$65/500g	\$48/500g
Broccoli:	\$90-\$107/500g	\$160 to \$685/500g
Brussel Sprouts:	\$135/500g	\$320 to 335/150g
Cabbage:	\$35/500g	\$265 to \$760/500g
Carrot:	\$32-\$90/500g	\$195/500g
Cauliflower:	\$125-\$600/500g	\$1420 to 1640/500g
Celery	\$180/500g	\$370/100g
Cress:	\$60/500g	
Cucumber:	\$50 to \$118/500g	\$80 ro \$810/500g
Egg Plant:	\$30/100g	\$75 to \$196/100g
Gherkin:	\$260/500g	\$60 to \$345/500g
Leek:	\$160 to \$262/500g	
Lettuce:	\$85 to \$145/500g	
Melon: Rock	\$12/100g	\$155 to \$284/100g
Water	\$32 to \$80/500g	\$225 to \$480/500g
Onion:	\$12 to \$31/100g	\$88 to \$263/100g
Parsley:	\$46 to \$150/500g	
Parsnip:	\$55 to \$60/500g	\$100/500g
Pea:	\$4 to \$5/kg	
Peppers:	\$25 to \$835/100g	\$396 to \$645/1000 seeds
Pumpkin:	\$10 to \$80/100g	\$80 to \$150/500g
Radish:	\$20 to \$25/500g	\$68 to \$180/500g
Spinach:	\$20 to \$45/500g	
Squash:	\$40 to \$320/500g	\$180 to \$300/500g
Swedes:	\$20/500g	
Sweet Corn:		\$23.50/500g
Tomato:	\$190 to \$280/500g	\$30 to \$200/10g
Turnip:	\$15/500g	\$260 to \$290/500g
Zucchini:	\$25/500g	\$96 to \$285/500g

2.8.4 Flower Seeds/Bulbs

Seeds:

There can be a wide range in cost of flower seeds, depending on the variety of seed. The following are indicative prices only.

Amaranthus	\$15.50 per 25g
Anemone	\$150 per 1000 seeds
Aster	\$37 to \$102 per 100g
Carnation	\$68 to \$79 per 100g
Chysanthemum	\$35 per 10g
Dwarf Chysanthemum	\$27.50 to \$46 per g
Cyclamen	\$135 to \$460 per 1000 seeds
Dahlia	\$40 to \$140 per 100g
Delphinium	\$70 to \$135 per 25g
Freesia	\$49.75 per 10g
Geranium	\$159 to \$398 per 1000 seeds
Gerbera	\$180 to \$500 per 10g
Gypsophila	\$7 to \$48 per 25g
Hollyhock	\$35 to \$210 per 100g
Lobelia	\$41.50 to \$95.50 per 25g
Lupin	\$5 to \$31 per 25g
Marigold - African	\$5.50 per 25g
- French	\$33 per 25g
Nasturtium	\$55 to \$100 per 500g
Pansy	\$140 to \$250 per 5g
Petunia	\$70 to \$159 per g
Polyanthus	\$24 to \$180 per g
Primulas	\$5 to \$156 per g
Sweet Pea	\$12.50 to \$40 per 500g
Sweet William	\$48 to \$73 per 100g
Wallflower	\$14.50 to \$24 per 25g
Zinnia	\$5.60 to \$195 per 10g

Bulbs:

Blue Mountain Gardens:

	<u>Price per 100</u>
Iris (Juno)	\$135
Iris (English)	\$50
Tulips	\$45to \$54
Narcissus	\$36 to \$66
Crocus species	\$63
Crocus hybrids	\$44

2.8.5 Fruit Trees and Plants

(see also *Section 2.22.1* for shelter plants)

Fruit Trees:

Prices are per tree but based on an order of 50 plus trees. It should be emphasised that a grower buying in bulk would be able to negotiate a substantially discounted price if buying hundreds (10%) or thousands of the same variety. (Range of Cultivars)

Almonds	\$8.35 to \$14.60	Apples:	\$15.50
Apricots	\$8.15	Cherries	\$8.15 to \$9.85
Citrus	\$9 to \$16.00	Plums	\$7.30 to \$14.40
Quinces	\$16.00	Nectarines	\$16.00
Peaches	\$7.30	Pears	\$7.80 to \$19.50
Figs	\$12.00	Nashis	\$14.50 to \$16.00
Persimmons	\$25.00	Tamarillos	\$6.00
Feijoas	\$3.50 to \$17.50		

Cheddar Valley Walnuts:

Persimmon (Fuju, Jiro, Hirotonashi, Yoko) 50 to 75cm \$22.22 each

Kumeu Kiwifruit Nurseries:

All field grown, available June to September 1996

- 2 year small	\$5.90
- 2 year medium	\$7.90
- 2 year large	\$9.90

Allenton Nurseries: (orchard and trade suppliers only)

Grape	\$6.20 each
Olive	\$5.20 each
Quince	\$8.15 each

Nut Trees:

Cheddar Valley Walnuts:

Discounts are normally available for purchases of more than 10 trees (10% discount) and more than 100 trees (20% discount).

	<u>Size</u>	<u>Price each</u>
Pecan	75 to 100cm	\$9.50
Chestnuts (Japanese and Spanish)	75 to 100cm	\$17 to \$23
	100 to 150cm	\$19.50 to \$27.50
Hazelnuts	50 to 75cm	\$9 to \$15
Walnuts	40 to 75cm	\$29.00
Hickory	10 to 25cm	\$6.00
Macadamias	25 to 50cm	\$17.00
Avocados	25 to 50cm	\$27.00

Halketts Nursery Ltd:

Hazelnuts	\$10.46
Sweet Chestnuts	\$12.69
Walnuts - English	\$13.56
- Black	\$14.83

Allenton Nurseries: (orchard and trade suppliers only)

Almonds - Burbank/Monovale	\$8.25
Sweet Chestnut	\$6.30 to \$9.50
Hazelnut	\$9.50
Walnut - common	\$7.20 to \$8.20
Stone Pine	\$3.50

Vines:

Grapes - grafted	\$3.50 to \$4.00 per plant
Kiwifruit - vary between \$5 and \$10 per plant according to the age of rootstock and whether the plant is grafted, more specific prices can be obtained from <i>Heatherdale Nurseries (Katikati)</i> .	

Berryfruit:

The Tree Centre (Hokitika):

Strawberry (punnets of 4)	\$4.95 each (small planterbag)
Blackcurrant	\$12.95 each (large planterbag), \$9.95 each (bareroot)
Redcurrant	\$12.95 each (large planter bag), \$9.95 each (bareroot)
Gooseberries	\$14.95 each (bareroot)
Blueberries	\$10.95 each (small planter bag)
Raspberry	\$4.50 each (large planter bag), \$3.50 each (bareroot)
Worcesterberry	\$10.95 each (small planter bag)
Tayberry	\$10.95 each (small planter bag)
Blackberry (thornless)	\$10.95 each (small planter bag)
Cranberry	\$12.95 each (large planter bag), \$10.95 (small planter bag)
Elderberry	\$12.95 each (large planter bag)

Other:

Kauri Creek (Wholesale) Ltd:

Citrus trees	\$8.75 ex nursery
Roses	\$7 ex nursery
Royalty Roses	\$9 ex nursery

2.8.6 Planting/Propagating Materials

Agpac Plastics:

Hydroponic Co-extruded Film - 600mm x 200m x 150 μ m to 12m x 50m x 150 μ m	\$112 to \$522.90 per roll
Agpac Black mulch Film - 740mm x 500m x 30 μ m to 1200mm x 500m x 50 μ m	\$69.40 to \$184.80 per roll
Black Polythene Planter Bags - sizes 0.75 to 95	\$32.15 to \$923.30 per 100

Athco Industries: (Auckland)

Planterbags:PB 3/4 to PB 95 , pack size-6000 to 100	\$24.54 to \$993.65 per 1000
Plastic labels 125 mm	\$30.00 per 1000
Seedling Punnets - Taglock	\$110 per 100
- Standard	\$95 per 1000
Propagation Trays small	\$1.03 each
Propagation Tubes 5.5cm	\$65 per 1000
7 cm	\$95 per 1000
Cell Trays 25ml, round,128 cells per tray	\$2.50
40ml, round, 72 cells per tray	\$2.50
Standard Planters 0.5 to 5, pack size 700 to 150	\$115.50 to \$477 per 1000
Square 'spacesaver' pots 10 to 15cm, pack size 1000 to 384	\$135 to \$310 per 1000
Commercial round pots 10 to 30cm, pack size 760 to 50	\$132 to \$560 per 1000
Large planters 4 to 25 litre, pack size 6000 to 100	\$24.54 to \$993.65

Flight Group Ltd.:

Propagation Trays		Tray Price	
	1-19	20-99	+100
	cartons	cartons	cartons
5 ml, circular cell	\$2.98	\$2.83	\$2.61
5 ml, square cell	\$3.28	\$3.12	\$2.87
13 ml, square cell	\$3.28	\$3.12	\$2.87
16 ml, square cell	\$3.28	\$3.12	\$2.87
30 ml, square cell	\$3.28	\$3.12	\$2.87
45 ml, circular cell	\$2.98	\$2.83	\$2.61
Cell tray base	\$2.98	-	-

Note: bulk discounts are available.

Lannen Plant Systems:

Plantek Seedling Trays - 25 to 256 cells per tray	\$7.35 to \$11.50 per tray
Landmark Trays - 50 to 512 plug tray and 84 Hexagonal	\$2.50 per tray
Water Absorbent Polymers - 25 kg bag	\$450
- 10 kg bag	\$190
- 5 kg pail	\$125
Pottputki Planting Tubes - 49 to 68mm	\$168 to \$216
- Kidney-shaped plant holder	\$84
- Plant holder with support	\$95
Ecopots - 433 to 1525 cell per square metre	\$3.90 to \$6.66 per carton
Plastic Growing Trays for Paperpots/Ecopots	\$6.30 to \$7.20
Paperpots, vary in size	\$2.12 to \$7.17 per carton

Quickheat:

Thermogro plant raising panels (230 volt)	
400 x 300mm	\$46.55
400 x 500mm	\$58.50
450 x 750mm	\$65.00
450 x 1200mm	\$79.40
600 x 750mm	\$69.00
600 x 1200mm	\$88.00
600 x 1520mm	\$109.80
Bulb Thermostats	\$44.00

Watkins N.Z. Ltd.:

Labels:

Price each

Standard tie-on labels (orders are in multiples of 25 per variety):	
- depending on size of order price varies	17 to 13 cents
Standard push-on labels (orders are in multiples of 125 per variety):	
- depending on size of order price varies	13 to 9cents
Maxi tie-on labels (orders are in multiples of 25 per variety):	
- depending on size of order price varies	31 to 27cents
Maxi push-on labels (orders are in multiples for 125 per variety):	21 to 17cents
Bedding Plant labels	6 to 8cents
Tiny Tags (orders are in multiples of 125 per variety):	7cents

Hardware:

- Watkins Pycos pots - vary from \$36 to \$194 per carton and price decreases as order increases.
- Watkins Squat pots - \$29 to \$218 per carton and price decreases as order increases.
- Teku light weight pots - \$128 to \$212 per carton and price decreases as order increases.
- Punnets - \$62 to \$114 per thousand.
- Petepots - vary from \$150 per 8000 to \$79 per 450.
- Paper pulp pots - vary from \$155 per 500 to \$191 per 8.
- Planter bags - vary from \$2.79 per 100 to \$113 per 100.
- Secateurs - vary from \$11 to \$15

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:

Sheep/Beef/Dairy Farms	
Northern North Island	\$830 to \$2,620
Lower North Island	\$750 to \$4,000
Canterbury and Northern South Island	\$1,200 to \$3,890
Otago and Southland	\$1,395 to \$24,000

Source: M.A.F. Farm Monitoring Report, January 1996.

Arable Farms - see examples in *Section 3*, Gross Margins for crops.

Orchards - see examples in *Section 3*, Gross Margins for fruit.

See individual items in this section for accurate budgeting.

2.9.2 Weed, Pest and Disease Control - General

Some herbicides, fungicides, and insecticides are produced by more than one chemical company and come in a range of strengths. Hence the trade names shown are to serve only as examples of the chemical concerned.

No preferential endorsement by Lincoln University is implied, nor is any criticism implied of any chemical which does not appear in this Manual.

The following coding has been employed to distinguish between the various Agrochemical companies:

A	Annand	M	Monsanto
B	BASF	N	Nu Farm
BY	Bayer	P	Pfizer
C	Ciba Geigy	PM	Pest Management Services
CF	Crawford	R	Rohm and Haas
D	Du Pont	RP	Rhone Poulenc
DE	Dow Elanco (formerly IWD)	S	Shell Agriculture
F	Fil	ST	Southern
I	ICI	W	Watkins
K	Key Chemicals	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 or direct from the publishers, Wham Chemsafe Limited, P.O.Box 11-092, Wellington).

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
2,4-D amine	2,4-D amine (40)	DE	20 litre	\$191
2,4-D Ester 80	2,4-D butyl ester (72)	N	20 litre	\$202
2,4-DB	2,4-DB (40)	DE	20 litre	\$242
Alachlor	alachlor (48)	S	20 litre	\$293
Activated Amitrole	amitrole (40) ammonium-thiocyanate (10)	N	20 litre	\$288
Amitrole	amitrole (40)	W	20 litre	\$313
Asulox	asulam (40)	RP	20 litre	\$535
Atradox BW	atrazine (90)	I	10 kg	\$137
Atrazine(Flowable)	atrazine (50)	N	20 litre	\$191
Avadex BW	triallate (40)	M	20 litre	\$332
Avenge 640	difenzoquat (64)	Y	1.5 kg	\$91
Axall	bromoxynil (7.5), ioxynil (7.5)	RP	20 litre	\$372
Banvel 200	dicamba(20)	N	5 litre	\$127
Banvine	2,4-D (20)	DE	1 litre	\$32
Basagran	bentazone (48)	B	20 litre	\$713
Betanal AM11	Phenmedipham (8.3) desmedipham (8.3)	DE	5 litre	\$258
Bladex	cyanazine (50)	S	10 litre	\$187
Boundary	norflurazon (40) doiron (40)	Y	5 kg	\$293
Bromoxynil	hydrocarbon liquids (44) bromoxynil (40)		5 litre	\$171
Buctril M	bromoxynil (20), MCPA (20)	RP	20 litre	\$383
Buster	ammonium phopshate (20)	B	5 litre	\$155
Buster	glufosinate ammonium (20)	W	20 litre	\$562
Caragard FW	terbuthylazine (25) terbumeton (25)	C	5 litre	\$134
Carbetamex	carbetamide (70)	RP	5 kg	\$153
Centurion, 240EC	clethodim (24)	N	5 litre	\$805
Chloro-IPC	chlopropham (40)	Y	20 litre	\$633
Combine	bromoxynil (20), ioxynil (20)	RP	20 litre	\$719
Commando	L-flamprop, isopropyl(20)	S	20 litre	\$553
Cougar 20G	diflufencarn (10), isoproturon (50)	RP	5 litre	\$197
Dacthal W75	chlorthal dimethyl (75)	Y	10 kg	\$486
Dicamba 20	dicamba (20)	I	20 litre	\$442
Dual 960 EC	metolachlar (96)	C	5 litre	\$139
Duplosan Super	dichlorprop (60)	B	10 litre	\$199
Duplosan KV	mecroprop-P (60)	B	10 litre	\$264
Escort 60DF	metasulfuron (60)	D	500 g	\$934
Frontier	dimethanamid (90)	Y	2 litre	\$141
Foresite	oxadiazon (40)	RP	4 litre	\$268
Foresite 380	oxadiazon (38)	W	4 litre	\$305
Fusilade WG	fluzafop-butyl (25)	I	5 kg	\$410
Gallant	haloxyfop (10)	DE	20 litre	\$793
Galtak	benazolin-ethyl	N	5 litre	\$588
Gardoprim FW	terbuthylazine (50)	C	20 litre	\$248
Gesagard WP	prometryn (50)	C	2 kg	\$87
Gesamil 50WP	propazine (50)	C	2 kg	\$81
Gesaprim 500FW	atrazine (50)	C	5 litre	\$40

Trade Name	Active Ingredient	(%)Company	Unit Size	Retail Price
Gesatop 500FW	simazine (50)	C	5 litre	\$56
Glean 75DF	chlorsulfuron (75)	D	200 g	\$270
Glyphosate	glyphosate (36)	N	20 litre	\$280
Goal	oxyflurofen (24)	R	5 litre	\$238
Gramoxone	paraquat (20)	I	20 litre	\$362
Granstar	methylbenzoate complex (75)	D	200 g	\$209
Grazon	trichlopyr (60)	DE	20 litre	\$994
Greenscape-organic	C8-C10 fatty acids (70)	Y	20 litre	\$193
Hi-Ester 2,4-D	2,4-D butyl ester (72)	DE	20 litre	\$219
Hyvar X	bromacil (80)	D	2.5 kg	\$198
Karmex	Diuron (80)	D	2.5 kg	\$66
Kerb Flo	propyryzamide (40)	R	5 litre	\$301
Krovvar	bromacil(40)& diuron(40)	D	2.5 kg	\$104
Lasso M/Tech	alachlor (48)	M	10 litre	\$168
Lexone 75 DF	metribuzin (75)	D	2.5 kg	\$268
Linuron DF	linuron (50)	D	2.5 kg	\$90
MCPA	MCPA (37.5)	N	20 litre	\$126
MCPB	MCPB (40)	N	20 litre	\$189
Marksman 480	dicamba (8)			
	atrazine (40)	N	10 litre	\$200
Mostox	dichlorphen (43.2)	R	5 litre	\$130
Nortron	ethofumesate (20)	Y	10 litre	\$1,142
No Sprout	chlorpropham (50)	Y	20 litre	\$953
Paraquat - see Gramoxone				
Permazol SDA	dalapon (37), amitrole (25)			
	sodium thiocynate (4.5)	RP	20 kg	\$304
Preeglon E	diquat (6), paraquat (12)	I	20 litre	\$273
Prefix D	chlorthiamid (7.5), dichlobenil (6.75)	S	5 kg	\$92
Proturf	dichlorprop (27.4), ioxynil (5.4), bromoxynil (36), MCPA (11.9)	RP	5 litre	\$88
Puma S	fenoxaprop-p-ethyl (7.5)	B	5 litre	\$485
Pyramin FL	chlorldazon(43)	B	1 kg	\$57
Ramrod FLO	propachlor (48)	M	9.47 litre	\$212
Reglone	diquat (20)	I	20 litre	\$391
Ronstar SG	oxadiazon (2.0)/simazine (0.5)	RP	20 kg	\$163
Roundup	glyphosate (36)	M	20litre	\$276
Salvo	dicamba (1.7), dichlorprop (23.3) MCPA (10.7), mecoprop (21)	S	20 litre	\$194
SDA	simazine,dalapon,amitrole	DE	500 g	\$17
Selecta 4CPA	4-CPA (40)	DE	5 litre	\$91
Semeron	desmetryn (25)	C	2 kg	\$145
Sencor 70 DF	metribuzin (70)	BY	2 kg	\$221
Simatox 900WG	simazine (50)	I	10 kg	\$153
Simazine Flowable	simazine (51)	N	20 litre	\$225
Sinbar	terbacil (80)	D	1 kg	\$105
Spraygrow	diquat (2.5), paraquat (15)	I	20 litre	\$316
Stomp 330E	pendimethalin (33)	Y	20 litre	\$540
Surflan FLO	oryzalin (75)	DE	5 litre	\$223
Surrender	benalkonium chloride (50)	Y	20 litre	\$420
Targa	quizalofop-p-ethyl (50)	S	5 litre	\$225

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Topogard FW	terbutryn (35)			
	terbuthylazine (15)	C	5 litre	\$205
Tordon Brush-	picloram (10)			
killer NF	triclopyr (30)	DE	20 litre	\$1,229
Tordon 2G	picloram (2)	DE	5 kg	\$64
Tordon 50D	picloram (2), 2,4-D (20)	DE	20 litre	\$500
Torpedo	diquat (10)	I	20 litre	\$382
Totril	ioxynil (22.5)	RP	20 litre	\$835
Touchdown	glyphosate-trimesium (48)	I	20 litre	\$271
Treflan	trifluralin (40)	DE	20 litre	\$257
Tribunil WP	methabenzthiazuron (70)	BY	2 kg	\$133
Triflur 40	trifluralin (40)	N	20 litre	\$235
Trimec	dicamba (1.87) plus			
	MCPA (15) plus, mecoprop (60)	I	20 litre	\$274
Tropotox Plus	MCPA (2.5), MCPB (37.5)	RP	20 litre	\$194
Turfweed	ethofumesate	Y	2 litre	\$260
Tyllanex	ethidimuron (70)	N	20 litre	\$293
Velpar 20G	hexazinone (20)	D	20 kg	\$653
Velpar 90	hexazinone (90)	D	2 kg	\$209
Velpar L	hexazinone (25)	D	20 litre	\$690
Versatill	clopyralid (30)	DE	20 litre	\$1457
Vorox TDA	terbuthylazine (40)			
	amitrole (12.5), dalapon (26)	C	20 kg	\$474
Weedazol 4L	amitrole (40)			
	ammonium thiocyanate (10)	RP	20 litre	\$213

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" (obtainable from rural retailers or direct from the publisher Wham Chemsafe Limited, P.O.Box 11-092, Wellington).

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Actellic Dust	pirimiphos-methyl (50)	I	15 kg	\$141
Actellic EC	pirimiphos-methyl (50)	I	1 litre	\$50
Actellic SG	pirimiphos-methyl (20)	I	90 g	\$16
Apollo 50 SC	clofentezine (50)	Y	2 litre	\$760
Applaud 25W	buprofezin (25)	DE	250 g	\$42
Attack	pirimiphos (47.5)	I	5 litre	\$164
Attack	permethrin (2.5)			
	pirimiphos-methyl (47.5)	W	1 litre	\$43
Averte 525 EC	diazinon(50) permethrin(25)	C	10 litre	\$318
Azinphos				
-methyl 50W	azinphos-methyl (50)	N	12 kg	\$557
Basudin 50WP	diazinon (50)	C	2 kg	\$49
Basudin 800EC	diazinon (80)	C	5 litre	\$176
Baythroid 5 EC	cyfluthin (5)	BY	5 litre	\$261
Carbaryl 50F	carbaryl (50)	N	10 litre	\$191
Carbaryl 80W	carbaryl (80)	N	15 kg	\$425
Chlorpyrifos 48EC	chlorpyrifos (48)	N	20 litre	\$1060
Chlorpyrifos 48EC	chlorpyrifos (48)	N	5 litre	\$282
Chlorpyrifos 50W	chlorpyrifos (50)	N	12 kg	\$669
Counter	terbufos (20)	S	20 kg	\$285
Decis EC	deltamethrin (2.5)	N	5 litre	\$295
Decis	deltamethrin (2.5)	W	1 litre	\$70
Defender - organic	potassium salts of fatty acids (25)	Y	20 litre	\$101
Delfin WG - organic	bacillus thuringiensis	Y	1 kg	\$136
Diazinon 20G	diazinon (20)	N	15 kg	\$185
Diazinon 50W	diazinon (50)	W	2 kg	\$55
Diazinon 80 EC	diazinon (80)	W	20 litre	\$705
Dimilin 25W	diflubenzuron (25)	W	500 g	\$147
Dipel 2 X	bacillus thuringiensis	N	500 g	\$59
Drisan	isazophos (10)	BY	20 kg	\$264
Ekatin	thiomton (25)	N	20 litre	\$200
Folidol	parathion-methyl (60)	BY	1 litre	\$53
Folimat	omethoate (58)	BY	5 litre	\$345
Gesapon 20G	diazinon (20)	C	22 kg	\$263
Gesapon 80EC	diazinon (80)	C	5 litre	\$155
Hallmark 5EC	esfenvalerate (5)	S	1 litre	\$88
Imidan	phosmet (75)	I	3 litre	\$68
Karate	cyhalothin (5)	I	5 litre	\$442
Kelthane 35	dicofol (35)	R	1 kg	\$37
Lannate L	methomyl (20)	D	5 litre	\$154
Lorsban 40EC	chlorpyrifos (40)	DE	5 litre	\$238
Lorsban 50WP	chlorpyrifos (50)	DE	4 kg	\$234

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Malathion 50	maldison (50)	N	20 litre	\$208
Maldison 50 EC	maldison (50)	Y	5 litre	\$76
Malix 35 EC	endosulfan (35.5)	B	5 litre	\$99
Mavrik aquaflo	fluvalinate (24)	Y	1 litre	\$190
Mesurol bait	methiocarb	BY	10 kg	\$149
Mesurol Snail	methiocarb (2)	BY	5 kg	\$88
Metasystox	demeto-s-methyl (25)	BY	5 litre	\$134
Miral 10G	iazophos (10)	C	2 kg	\$272
Monitor	methamidophos (60)	B	20 litre	\$833
Nemacur 400 EC	fenamiphos (40)	BY	5 litre	\$299
Nissorun WP	hexythiozox (10)	RP	1 kg	\$200
Nursery Mavrik	tau-fluvinat (0.96)	Y	1 litre	\$27
Nuvan 1000 EC	dichlorvos (100)	C	1 litre	\$39
Omite 30W	propargite (30)	N	2 kg	\$84
Orthene 75	acephate (75)	N	10 kg	\$511
Orthene Liquid	acephate (19.5)	Y	1 litre	\$44
Otinem - organic	<i>Heterorhabditis bacteriophora</i>			
	0.63 million per g	Y	95 g	\$100
Pentac Aquaflo	dienochlor (48)	Y	1 litre	\$264
Perfekthion S	dimethoate (50)	B	5 litre	\$126
Pheromone traps		PM	2 kits	\$93
Phorate 20G	phorate (20)	I	15 kg	\$120
Pirimor 500	pirimicarb (50)	I	500 g	\$37
Ripcord 20 EC	cypermethrin (20)	S	275 mls	\$52
Rogor E	dimethoate (40)	Y	20 litre	\$333
Safers Insecticide	potassium salts (47.7)	W	4 litre	\$31
Saprene	triforine (18.3) plus			
	acephate (11.4)	N	1 litre	\$40
Sevin FLO	carbaryl (80)	RP	10 litre	\$173
Sevin WP	carbaryl (80)	RP	2 kg	\$63
Suscon Green	chlorpyrifos (10)	W	15 kg	\$288
Tamaron	methamidophos (60)	BY	20 litre	\$671
Thimet 20G	phorate (20)	N	15 kg	\$145
Thiodan 35EC	endosulfan (35.5)	W	20 litre	\$458
Verthion EC	fenitrothion (60)	S	20 litre	\$496
Vydate L	oxamyl (24)	D	3.8 litre	\$165
Yates Pyrethrum	pyrethrum (1.4) (Organic)	Y	5 litre	\$144

2.9.5 Fungicides

Refer to *Section 2.9.2* for key to Company Codes.

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Afugan	pyrazophos (30) xylene (56)	B	1 litre	\$62
Aliette	fosetyl-aluminium (52.8)	RP	1 kg	\$77
Aliette Super	fosetyl-aluminium (52.8)			
	thiabendazole (12.9)			
	thiram (17.21)	RP	2.9 kg	\$250
Alto	cyproconazole	N	5 litre	\$750
Antrocol 70 WP	propineb (70)	BY	25 kg	\$308
Bavistan FL	carbendazim (50)	B	5 litre	\$377
Baycor 50 WP	triazole (50)	BY	2 kg	\$226
Bayleton 5 DF	triazole (5)	BY	2 kg	\$119
Baytan IM	triadimenol (15)	BY	10 kg	\$985
Benlate	benomyl(50)	W	1 kg	\$85
Beret Z 24 WS	fenpiclonil (20) imazalil (0.4)	C	1 kg	\$31
Botran 25W	dicloran (75)	Y	2 kg	\$144
Bravo 500F	chlorothalonil (50)	Y	2 litre	\$93
Calixin	tridemorph (75)	B	5 litre	\$235
Captan - see Orthocide				
Cereous	triadimenol (25)	BY	5 litre	\$526
Champ - organic	cupric hydroxide (23)	Y	9.46 litre	\$132
Champion-organic	copper (50)	Y	10 kg	\$144
Copper	copper oxichloride (50)	W	25 kg	\$234
Dacamil (Bravo)	chlorothalonil (50)		20 litre	\$460
Dithane M45	mancozeb (80)	R	25 kg	\$375
Dodine 400	dodine (40)	N	10 litre	\$205
Euparen DF	dichlofluanid (50)	BY	2 kg	\$141
Folicur	terbuconazole (25)	BY	5 litre	\$400
Fongarid 25 WP	furalaxyl (25)	Y	500 g	\$171
Galben	benalaxyl (8), mancozeb (65)	I	25 kg	\$827
Greenguard	chlorothalonil (12.5)	Y	20 litre	\$485
Karathane	dinocap (18.5)	R	2.5 kg	\$83
Kocide 606	cupric hydroxide (50)	S	10 litre	\$120
Kumulus	sulphur (80)	W	10 kg	\$64
Lime Sulphur	sulphur (15)	F	20 litre	\$64
Mancozeb 80W	mancozeb (80)	N	2 kg	\$31
Mancozeb	mancozeb (80)	W	25 kg	\$249
Merit 500EC	propiconazole (12.5)			
	fenpropimorph (37.5)	C	5 litre	\$288
Monceren	pencycuron (12.5)	BY	20 kg	\$576
Nimrod	bupirimate (25)	I	10 kg	\$377
Nustar	flusilazol (20)	D	400 g	\$123
Orthocide, 10 Dust	captan (10)	N	25 kg	\$182

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Orthocide 65	captan (65)	N	25 kg	\$330
Orthocide 80 W	captan (80)	N	12 kg	\$208
Pencozeb	mancozeb (80)	N	25 kg	\$330
Phaltan 50W	folpet (50)	N	2 kg	\$30
Polyram DF	metiram (80)	B	10 kg	\$132
Previcur N	propamocarb (60)	W	1 litre	\$44
Ridomil MZ WP	metalaxyl (8) mancozeb (64)	C	20 kg	\$792
Ridomil 10G	metalaxyl (10)	C	2.5 kg	\$107
Rizolex	tolclofos methyl(10)	S	25 kg	\$519
Ronilan FL	vinclozolin (50)	B	5 litre	\$452
Rovral WP	iprodione (50)	RP	1 kg	\$103
Rovral Flo	iprodione (25)	RP	20 litre	\$904
Rubigan 12EC	fenarimol (12)	RP	5 litre	\$481
Rubigan FLO	fenarimol (12)	RP	1 litre	\$93
Saprene	triforine (3.9), acephate (4.5)	N	1 litre	\$30
Saprol	triforine (19)	S	2 litre	\$105
Shirlan	fluazinam (50)	I	5 litre	\$622
Sportak 45 EC	prochloraz (45)	N	5 litre	\$283
Sumisclax FL	procymidane (25)	I	20 litre	\$891
Syllit Plus	dodine (40)	RP	10 litre	\$203
Taratek	chlorothalonil (25)			
	thiophanate methyl (25)	W	10 litre	\$425
Terraclor 75WP	quintozene (75)	W	25 kg	\$1350
Terrazole 35WP	etridiazole (35)	W	25 kg	\$2438
Terrazole 25EC	etridiazole (25)	W	1 litre	\$71
Thiram 40 F	thiram (40)	N	10 litre	\$84
Thiram DF	thiram (80)	N	20 kg	\$339
Thiram WDG	thiram (80)	Y	2 kg	\$40
Thiram 80	thiram (80)	N	20 kg	\$230
Thiram 80W	thiram (80)	W	20 kg	\$375
Thiram 40F	thiram (40)	W	10 litre	\$100
Tilt 625 Gel	prop-isoconazole	C	100 g	\$258
Topas MZ62WP	penconazole (1.7), mancozeb (60)	C	3 kg	\$88
Topas 10 WP	penconazole (10)	C	0.5 kg	\$68
Topas 100 EC	penconazole (10)	C	1 litre	\$107
Topsin M-4A	thiophanate-methyl (40)	DE	5 litre	\$194
Vincit	flutriafol (5)			
	imazalil sulphate (5)	I	5 litre	\$388
Vitaflo 200	carboxin (20), thiram (20)	N	20 litre	\$492

Note: For Section 2.9.6 to 2.9.15 refer to Section 2.9.2 for key to Company Codes.

2.9.6 Rabbit/Rodent Control

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Non toxic Feed Pellets		PM	25 kg	\$37
Pindone Rabbit Pellets		PM	25 kg	\$65 - \$73
Magtoxin fumigant		PM	1 kg	\$164
Storm	flocoumafen (0.005)	S	10 kg	\$110
Talon 50 WB	brodifacoum (5)	I	12.5 kg	\$105

2.9.7 Bird Repellants

4 the birds polybutene		PM	0.3 kg	\$21.33
Scarecrow polybutene		PM	0.25 kg	\$19.11
Alpha chloralose wheat		PM	1.5 kg	\$15.62

2.9.8 Bactericides (1995 prices)

Streptomycin	streptomycin (17)	K	1.2kg	\$72
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2.9.9 Wetting, Spreading and Marking Agents

Citowett sticker/spread				
	alkylaryl polyglycol ether	B	5 litre	\$52
Contact	non ionic surfactant	I	20 litre	\$198
Delfoam	anti-drift agent	Y	5 litre	\$71
Keymark	foam"blob"marker conc.	K	5 litre	\$62
Landmark	spray marker dye	N	1 litre	\$49
Millermark	foam"blob"marker conc.	K	4 litre	\$100

2.9.10 Penetrants

Pulse (for Roundup herbicide)		M	5 litre	\$174
Triton X45		I	20 litre	\$297

2.9.11 Growth Regulants

Cultar	paclobutrazol (25)	I	1 litre	\$293
Cycocel 750	chlomequat (75)	B	10 litre	\$137
Ethrel	chlorthethopon (4.8)	RP	20 litre	\$698
Promalin	gibberellic acid (1.9)	N	500 ml	\$207
Terpal	mepiquat chloride (30.5)			
	chlorthethopon (15.5)	B	5 litre	\$210

2.9.12 Sprout Inhibitors

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
No Sprout	chlorpropham (50)	A	20 litre	\$761
			200 litre	\$6,122
Propham	propham (40)	A	25 kg	\$129

2.9.13 Oil Sprays

D-C Trate	Int. spraying oil	B	20litre	\$99
Sunspray	oils-mineral-insecticidal (97)	S	5litre	\$31
		S	20litre	\$93

2.9.14 Soil Fumigants

Basamid G	dazomet (99)	B	20kg	\$281
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2.9.15 Root Forming Hormones (1995 prices)

Clonex	beta-indolyl butyric acid	Y	500ml	\$36
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2.9.16 Spraying Costs - Aerial and Ground

Aerial Spraying

Canterbury:

For helicopter work in Canterbury costs include:

Crop Spraying	\$20 to \$30 per hectare
Brushweed Spraying	\$100 to \$120 per hectare
Charter Rate	\$963 per productive hour

Waikato:

Cost varies according to application rate, area, farm location and distance to ferry. Some examples are:

Pasture weeds	\$9 to \$15 per hectare
Gorse	\$200 per hectare

Another contractor charges \$32 per hectare for most types of spraying.

South Island

Aerial spraying for spot work and large blocks may be negotiated on the basis of a rate per flying hour as follows:

Loma	\$1,125 per hour
Squirrel	\$995 per hour

Ground Spraying (crops):

Canterbury

Rates vary depending on chemical used, application rate and crop being sprayed.

Boom spraying costs on average	\$36 per ha
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Contract Weed Control:

Gunning work, 2 people and machinery:

Depending on job size	\$78 to \$90 per hour
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2.10 SELLING, HANDLING, PROCESSING CHARGES, AND LEVIES

2.10.1 Yard Fees

Usually on a per head basis and varies between stock and station agents.

Canterbury

	Vendor	Purchaser
Sheep and lambs	\$0.40	\$0.15
Prime cattle	\$5.00	\$1.00
Store cattle	\$3.20	\$0.80
Prime pigs	\$2.15	\$0.60
Store pigs	\$1.65	\$0.35
Bobby calves	\$2.15	\$0.60
Dairy cattle	\$3.70	\$0.80
Goats	\$0.40	\$0.15
Ponies	\$4.50	\$1.00

North Island sales yards levy approximately 16c per head for sheep and \$1.60 per head for cattle, payable in equal amounts by vendor and purchaser.

2.10.2 Commissions on Stock and Plant sold through a Stock and Station Agent

Canterbury

Sale Yards

Sheep	5.50%
Prime/Store Cattle	5.50%
Vealers	5.50%
Bulls Stud	8.50%
Dairy Cattle	5.50%
Pigs	6.25%
Deer	5.50%
Goats	5.50%

Clearing Sales

Sheep	5.50%
Store Cattle	5.50%
Dairy Cows	5.50%
Horses	5.50%
Stud Sheep/Cattle	8.50%
Pigs	5.50%
Dogs	5.50%
Plant	10.00% to 15.00%
Deer	6.00%

Central North Island

Sales Yards

Sheep	6.00%
Cattle	5.50%
Vealers	5.50%
Bulls Stud	9.00%
Dairy Cattle	5.50%
Pigs	7.50%
Deer - weaners	6.00%
Deer - breeding	6.00%
Deer - stud	6.00%
Goats - G2 - feral	5.50%

Clearing Sales

Sheep	12.50%
Store Cattle	12.50%
Pigs	12.50%
Dairy Cows	12.50%
Horses	12.50%
Stud Cattle	12.50%
Stud Sheep	12.50%
Dogs	12.50%
Motorised Plant and Implements	7.00% to 8.00%
Furniture	7.00% to 8.00%
Sundry	7.00% to 8.00%

2.10.3 The Direct Costs of Harvesting and Marketing Wool

Prices are cents per kg clean wool.

	1991/92	1992/93	1993/94
Average Auction price	437.1	432.8	413.8
Shearing and Crutching	52.8	56.1	54.3
Shed Hands and other shed costs	22.1	26.4	24.9
Pressing and wool packs	9.3	8.1	7.0
<u>Subtotal</u> : Shearing shed	84.2	90.5	86.2
Transport to store	4.5	4.5	4.5
Insurance - sheep's back to store	0.6	0.9	0.8
Brokers charges *	15.2	14.6	14.1
Presale test certificate	3.9	3.8	3.8
NZWB levy (6% gross proceeds less brokers charges)	25.3	25.1	24.0
<u>Subtotal</u> : Transport/Selling	49.6	48.9	47.2
Net Return to the Grower	303.3	293.4	280.3

Source: *Wools of New Zealand*.

* Editor's Note:

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. Figures are unavailable for more recent seasons.

2.10.4 Goat Fibre Charges

The *South Island Mohair Warehouse Co Ltd* classing and handling charges are as follows
Levies are included.

All fibres attract the following instore charges:

Classing	55 cents per minute
Warehouse Fee	22 cents per kg
Marketing	5% on net sold

Mohair MOPANZ Levy: 4% (optional), includes the replacement of the MOPANZ subscription.
IMA Levy: 7 cents per kg on 0 and 1st lines (optional)

Cashgora and Cashmere:

Classing warehousing and marketing as for Mohair. There are no levies on these fibres.

2.10.5 Velvet Charges

The *Velpool Group* charges for consolidation and grading costs are as follows:

- Seller charged 3.5% for commission.
- Seller charged \$4.00 per kg for handling and grading costs.
- Buyer packing fee \$1.00 per kg

See also *Section 2.10.7*

2.10.6 Killing and Inspection Charges

Options for Suppliers of Livestock:

Livestock procurement policies vary widely between meat processing/exporting companies. Significant differences between North and South Island policies can also be observed.

Generally a farmer has a choice of the following selling options.

- on farm selling
- on schedule
- company pool
- direct contract

In most cases the price paid is net of processing costs. Consequently the concept of "killing charges" for individual companies or plants is no longer relevant. Processing costs are not shown on weight notes or killing sheets.

Deductions are usually made only for livestock transport to the killing plant and for compulsory levies recovered by companies for other parties. GST is also shown as a separate item.

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.

Current levels of costs are given as follows.

Killing Costs

The actual level of these costs is confidential to companies and is determined by the operational efficiency of each plant and the nature and pattern of the throughput of the plant. Current levels of costs are approximately:

Lamb		\$8 to \$12 per head
Sheep		\$8 to \$12 per head
Cattle	● Cows and Vealers	\$80 per head
	● Calves	\$65 per head
Pigs	● Up to 30kg	\$29 per head
	● Over 30 kg	\$32 per head
Deer		\$5 to \$8 per head depending on size

Costs for further processing depend on the nature and complexity of the processing specification.

Meat Inspection Fees

These fees are payable by meat companies under a compulsory cost recovery contract negotiated with MAF Quality Management each year. The contract includes the recovery of the direct costs of front line meat inspection as well as off-plant programme costs and overheads.

The current levels of meat inspection costs are approximately:

Lamb	\$0.93 per head	Goats	\$0.97 per head
Sheep	\$1.05 per head	Bobby Calves	\$0.93 per head
Cattle	\$6.50 per head	Horses	\$6.50 per head
Pigs	\$3.25 per head		

- Note:**
- These indicative rates are based on the recovery of the total budgeted inspection costs divided by the estimated national kill for the 1995/96 killing season.
 - Significant variation in rates may occur between plants because of the different nature and pattern of kill between plants.
 - 85% of Meat Companies have now entered into agreed service contracts for the first time.

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 November 1994).

Figures are rounded to the nearest cent.

<u>Levies Per Head:</u>	Cows	Other Cattle	Calves (up to 27 kg)	Vealers (27 to 60 kg)
* Disease Eradication	\$8.57	\$8.57		\$8.57
Meat Producers Bd.	\$4.20	\$4.20	\$0.24	\$4.20
Total Levies	\$12.77	\$12.77	\$0.24	\$12.77

<u>Levies per head:</u>	Lambs	Sheep and Goats	Pigs ¹
Meat Producer Board	\$0.46	\$0.46	
Pork Industry Board			\$4.31
Total Levies	\$0.46	\$0.46	\$4.31

- Note:** Other Cattle Includes Heifers, Steers and Bulls.
Sheep Includes Hoggets and Rams, and other Adult Sheep.
 All levy rates shown are GST exclusive.

¹ See also *Section 1.8.1*

* A nil rate of levy applies to any animal slaughtered which is wholly condemned, by MAF inspectors only, for any reason following slaughter.

Pork Industry Council Administration and Pork Marketing Stabilisation Levies

See previous page and also *Section 1.8.1*

Wool Board Levy - see *Section 2.10.3*

Deer/Game Industry Board Levies

Current *Game Industry Board Levies* are as follows:

Venison -

24¢ per kg carcase weight, 15¢ per kg carcase weight for fallow deer, plus 3¢ per kg for the Animal Health Board, on all farmed deer going through Deer Slaughter Premises.

Velvet -

\$1.00 per kg green weight for Fallow velvet and \$3.00 per kg green weight on all velvet other than Fallow deer. An additional 30¢ per kg is paid to the Animal Health Board.

In addition to these levies effective from December 1st 1995 is the NZDFA commodity levy which includes 1.5¢ per kg on venison and 10¢ per kg of velvet.

2.10.8 Contract Fees - Beef Cattle

For holding cost margins and management fees associated with beef contracts - see *Section 1.4.3*.

2.10.9 Herbage Seed Levy

This levy is imposed on herbage seed collected by the M.A.F. seed testing station on all lines of herbage seed submitted for first testing.

The Herbage Seed Subsection levies 1995, are calculated at 0.6% of the average estimated seed value. Refer to *Section 1.11.1*.

2.10.10 Wheat Growers Levies

United Wheatgrowers levy - \$2.10 per tonne, Insurance premium.

Foundation for Arable Research levy - 0.4% of value of first point of sale.

Levies for Barley, Maize, field peas and Oats are also 0.4%, Sunflower 0.1%

2.10.11 Potato Levy

The *New Zealand Vegetable and Potato Growers Federation* has a compulsory levy of 75¢ per \$100 of sales.

2.10.12 Horticultural Levies

Annual Berryfruit Levy

A levy is paid on the area of fruit grown.

Less than 200 sq metres	Nil
Over 200 sq m but not over 8000 sq m or 2000 strawberry plants (which ever is less)	\$200
8000 sq m and over	\$350

Blackcurrants

A levy of 2.5 cents per kilogram shall be paid in respect of all blackcurrants sold for processing or export (over and above the general berryfruit levy).

Raspberries

North Island raspberries growers are under the Annual Berryfruit Levy, there is also a \$25 levy on top of the Annual Berryfruit Levy.

South Island raspberries divided into three regions (Nelson, Canterbury and Otago), each with own levy system:

Nelson: A levy of 9 cents per kg on export and locally sold produce

Canterbury: Levy of \$10.00 per hectare if a producer
(To be a producer, must have a tenth of a hectare.)

Otago: Levy of \$100 per grower per year.

Levy on:	<u>Local Market</u>		<u>Export Market</u>	
	Grower	Grower	Grower	Exporter
Nectarines	1% voluntary	4.5¢ per kg	4.5¢ per kg	1.5¢ per kg
Apricots	1% voluntary	4.5¢ per kg	4.5¢ per kg	1.5¢ per kg
Peaches	1% voluntary	4.5¢ per kg	4.5¢ per kg	1.5¢ per kg
Plums	1% voluntary	4.5¢ per kg	4.5¢ per kg	1.5¢ per kg
Cherries	1% voluntary	6¢ per kg	6¢ per kg	2¢ per kg
Blueberries (Fresh)	10¢ per kg	28¢ per kg	28¢ per kg	5¢ per kg
(Frozen)	3¢ per kg	5¢ per kg	5¢ per kg	1¢ per kg
Table Grapes	-	10¢ per kg	10¢ per kg	6¢ per kg
Avocados	3.0%	50¢ per tray	50¢ per tray	10¢ per tray
Feijoas	2.0%	30¢ per tray	30¢ per tray	20¢ per tray
Persimmons	4.0%	75¢ per tray	75¢ per tray	15¢ per tray
Buttercup Squash	\$3.50 per tonne	\$3.50/tonne + 0.225%	\$3.50/tonne + 0.225%	\$1.50 per t
Garlic	0.45%	0.375% + 10¢ per kg	0.375% + 10¢ per kg	-
Black Currants	2.5¢ per kg	2.5¢ per kg	2.5¢ per kg	-
Boysenberries	2¢ per kg	-	-	-

Citrus Fruits:

The Citrus Planning Council imposes a 3% levy on all citrus fruit growers.

Orchard Levies:

Orchard Levies apply to all fruit grown in orchard type conditions except berryfruits, e.g. kiwifruit, pip and stonefruit:

The new compulsory Commodity Levy effective from January 1, 1996 is as follows:

- Fruitgrowers with a total planted area of over 40ha, a flat rate of \$640
- Fruitgrowers with a total planted area of 4 to 40ha, \$16 per ha
- Fruitgrowers with a total planted area of 2 to 4ha, \$60 per ha
- Fruitgrowers with a total planted area of 0.5 to 2 ha, a flat rate of \$45
- Fruitgrowers with a total planted area of under 0.5 ha, exempt

Berry Fruit Garden Levy

- up to 8,000 square metres or 2,000 strawberry plants (whichever is less) - \$200
- 8,000 square metres and over - \$350

Vegetables

Below are the proposed rates under the new commodity levy:

Fresh vegetables:	0.45¢ 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
Tomato:	1¢ per \$100 of sales
Asparagus:	0.15¢ per \$100 of sales
Squash:	0.15¢ per \$100 of sales

2.11 SUNDRY CROPPING and HORTICULTURAL EXPENSES

2.11.1 Seed Certification Charges 1995/96

These comprise the following fees:

- a) Grower Fee - per paddock
- b) Plot Testing Fee - per line
- c) Per Kilogram Fee - per kg MD seed

Details are as follows:

- Grower Fees

Crop eligible 1st or 2nd Generation	\$62 per paddock
Crop eligible Breeders or Basic plus travel	\$124 per paddock \$5.50 to 43.00 per paddock
Late fee	\$50
Crops withdrawn before inspection date	\$25

- Plot Testing Fee \$10 per line

- Per Kilogram Fee

	Cents/kg MD Seed: (sack weight in brackets)	
Cereals	0.70 (50kg)	0.60 (70kg)
Grasses/Brassicas	1.29 (25kg)	1.03 (40kg)
Herbage Legumes	2.32 (25kg)	1.96 (50kg)
Redressing and Downgrading	17¢ per sack	

Uncertified Seed

Per Line Fee \$35 per line

Per Kilogram Fee

	Cents/kg MD Seed: (sack weight in brackets)	
Cereals	0.36 (50kg)	0.26 (70kg)
Grasses/Brassicas	0.84 (25kg)	0.57 (40kg)
Herbage Legumes	1.40 (25kg)	1.05 (50kg)

Example Calculation:

1st Generation crop of Perennial Ryegrass

Line size 6500kg MD seed

Seed Certification

Grower fee

- Crop eligible 1st Generation	\$62.00
- Travel	\$8.00

Plot Testing \$10.00

Per kg Fee - 6500 kg MD ryegrass x 1.29 ¢ per kg MD seed \$83.85

2.11.2 Grain Drying Charges

Manawatu/Rangitikei Drying Charges (1996 harvest)

Wheat and Barley:

<u>% Moisture</u>	<u>Milling Wheat</u>	<u>Feed Grains</u>
14.6 to 14.9%	\$14.00	\$14.00
15.0 to 15.9%	\$15.00	\$15.00
16.0 to 16.9%	\$16.50	\$16.50
17.0 to 17.9%	\$18.25	\$18.25
18.0 to 18.9%	\$20.75	\$20.00
19.0 to 19.9%	\$23.50	\$22.00
20.0 to 20.9%	\$27.00	\$24.00
Thereafter	\$3.50 per %	\$2.50 per %
Testing Fee (Milling Wheat)		\$1.85 per Tonne

Drying Charges for 1996 Maize harvest for Waikato area:

<u>%</u>	<u>Drying cost (\$ per tonne)</u>	<u>Dry conversion</u>
15	15.75	0.986
16	15.75	0.973
17	15.75	0.9595
18	15.75	0.946
19	15.75	0.9325
20	15.75	0.919
21	17.15	0.9055
22	18.55	0.892
23	19.95	0.8785
24	21.35	0.865
25	22.75	0.8515
26	24.29	0.838
27	25.55	0.8245
28	26.95	0.811
29	28.35	0.7975
30	29.75	0.784
32	32.55	0.757
34	35.35	0.730
36	38.15	0.703

Weighbridge charges \$4.81 per weigh

Drying Charges for 1996 Maize Harvest for Manawatu and Rangitikei:

<u>%</u>	<u>Price (\$ per tonne)</u>
up to 20.9	15.09
21 to 21.9	16.41
22 to 22.9	17.72
23 to 23.9	19.03
24 to 24.9	20.34

<i>Drying Charges continued</i>	Price (\$ per tonne)
%	
25 to 25.9	21.66
26 to 26.9	22.97
27 to 27.9	24.28
28 to 28.9	25.59
29 to 29.9	26.91
30 to 30.9	28.22
31 to 31.9	29.53
32 to 32.9	30.84
33 to 33.9	32.16
34 to 34.9	33.47
35 to 35.9	34.78
Moisture deductions	- up to 27.9% - 1.4%
	- 28% and over - 1.5%

Buchanans Storage Company:

All grain drying	- up to 16% moisture	\$17.00 per tonne
	- greater than 16% moisture	\$20.00 per tonne
Screening charge		\$13.00 per tonne
Seed Drying		\$30.00 per tonne

2.11.3 Consolidated Dressing and Store Handling Charges

McFarlanes Seed and Grain:

These rates include receiving, delivering, sampling, weighing, dressing, brushing of sacks and disposal of offal.

Ryegrasses		16.00 cents per kg
Cocksfoot		35.20 cents per kg
Clovers	-White, Red and Alsike	33.00 cents per kg
Lucerne		33.00 cents per kg
Grass seed	(Fine - Browntop, Fescue, Dogstail and Timothy)	42.90 cents per kg

Field dressed ryegrasses, clovers and timothy usually dress out approximately 25% offal and field dressed cocksfoot from 25% to 33% offal.

Turnips, Chou Moellier, Kale and Mustard		20.00 cents per kg
Rape		20.00 cents per kg
Prairie Grass		64.90 cents per kg
Yarrow		84.70 cents per kg
Separating White Clover and Ryegrass		\$2.10 per sack
Separating mixed Oats and Ryegrass		\$2.10 per sack
Slurry treating		\$29.30 per tonne plus materials
Blending clovers and blending grass seeds		\$6.00 per 100 kg

Machine Dressing

Wheat and Ryecorn	\$55.00 per tonne
Barley	\$55.00 per tonne
Field Peas and Lupins	\$61.00 per tonne
Garden Peas, Beans and Lentils	\$71.00 per tonne
Oats (dressing and clipping)	\$66.50 per tonne
	(or by negotiation)

Storage Charges

\$2.75 per tonne per month. Storage commences 1 April 1996, minimum storage cost of \$5.50, consolidation fee \$5.50.

2.11.4 Seed Testing Fees

MAFQual:

Schedule of Seed Testing Charges

Purity and germination combined	\$106 to \$122
Purity only	\$78 to \$100
Germination only	\$84 to \$95
Germination only field dressed (GOFD)	\$55
Imported Seed -	
Purity and germination combined	\$134 to \$156
Purity only	\$105 to \$123
Germination only	\$85
Endorsed certificates for export	\$72
Advice before completion (e.g. interim, telex, wire purity, wire regulations)	\$11
Copy (NZ or Orange Certificates)	\$22
Downgrading	\$44
Moisture	\$77
Seed weight determination	\$33
or if for certifications standards	\$11
Vigour (peas, prairie grass, dogstail)	\$88
Buried seed content	\$110
Fluorescence	\$66
or if for certification standards	\$33
Tetrazolium	\$88
Urgent tests - Purity and Germination	\$148 to \$170
- Purity or Germination	\$109 to \$140

Health:

Bacterial Blight	\$110
Pea Seed Borne Mosaic Virus	\$110
Endophyte	\$110
Blind Seed	\$110
Ascochyta (peas, broad beans, tick beans)	\$110

Inoculant and Coated Seed Testing Services Tests:

Inoculant and Coated Seed Test	\$110
Heterogeneity Test	\$770

Buchanans Storage Co Ltd:

Separate Lab Tests on Milling Wheat	
Protein/Moisture (NIR)	\$8.00
Falling Number	\$12.00
Black Point	\$6.60
Kernel Weight	\$6.00
Screenings (Rotoscreen)	\$3.50
Test Weight	\$2.10
Full Range of Lab Tests on Milling Wheat	\$27.00

2.11.5 Sacks, Crates, Packaging and Weighing Equipment

Sacks

Ashley Wool and Sack Ltd:

New and used sack range \$0.30 to \$2.00 each depending on the size and condition

Crates

Fruit Case Company

F80	-610mm long x 420mm wide x 445mm deep -560mm long x 380mm wide x 420mm deep	\$14 deposit plus \$0.40 user fee
F40	-610mm long x 420mm wide x 237mm deep -560mm long x 380mm wide x 224mm deep	\$11 deposit plus \$0.40 user fee
F25	-610mm long x 420mm wide x 150mm deep -556mm long x 380mm wide x 140mm deep	\$11 deposit plus \$0.40 user fee
Binpack	-1065mm long x 1220mm wide x 665mm deep -1015mm long x 1175mm wide x 500mm deep	\$70 deposit plus \$3.50 user fee

Packaging Materials

Cases and Cartons: (1994 prices)

Tomatoes		\$1.15 each
Gate sales	- 2.5 kg	\$0.32 each
	- 4.5 kg	\$0.42 each
	- 9.0 kg	\$0.85 each
	- 18.0 kg (with lid)	\$2.19 each

Apple Bags:

Plain gate sales	- 5 kg	\$68 per 1000
	- 10 kg	\$120 per 1000
Cellophane	- 255 x 255 plain	\$60 per 2000
	- 300 x 400 plain	\$97 per 2000

Carrot/Pumpkin Bags: 20 kg \$420 per 1000

Wax Cartons: (Lettuce etc)

Power Pack 2000 \$3.05 each
 Power Pack 3000 \$3.89 each

Plix Packaging Ltd:

	<u>Price Per</u> <u>1000</u>
Kiwifruit Fluted Trays	\$164
Summerfruit Trays	\$203
Avocado Trays	\$175
Nashi Trays	\$270
Punnets	\$65
Squash/Melon Trays (for field use)	\$42
Seedling Punnets	\$60
Plixtrainers	\$350
Exotic Trays (for feijoas/tamarillos)	\$203
Kwik Pak Trays	\$1521

Pacific Growers Supplies Ltd: (1994 prices)

Silver Freesia Sleeve		\$68.25 per 100
Carnation Sleeve	450 x 210 x 100	\$39.10 per 1000
Chrysanthemum Large Sleeve	450 x 350 x 185	\$56.13 per 1000
Orchid Polythene Sleeve	160 x 600mm Packs	\$30.00
	205 x 600mm Packs	\$34.20
Orchid Tubing	160mm wide x 1000m	\$47.57 per roll
	225mm wide x 1000m	\$58.95 per roll

Kiwifruit Tray Component Prices:

The NZKMB has introduced a Packaging Equalisation Scheme which evens out the total costs of packaging regardless of the pack type used and the percentage into loose fill bulk packs.

	Single Layer	Tripack	Euro Double	Euro Bulk
Tray	1.08	1.78	1.28	1.74
Machine Lease	0.02	0.02	0.02	0.02
Glue	0.015	0.025	0.02	0.025
Assembly	0.02	0.035	0.025	0.035
Pallet Base	0.0672	0.1625	0.1887	0.283
Pallet Cap	0.028	0.0676	0.0285	0.0428
Fibre Pocket	-	-	0.32	-
Pet Pock	0.158	-	-	-
Polyliner	0.0337	0.0869	0.0681	0.0808
Vert V Boards	0.0230	0.0556	0.0267	0.04
Strap and Clips	0.009	0.0217	0.0114	0.0171
Unit Value	1.4539	2.2543	1.9884	2.2837
TE Value	1.4639	0.9095	1.2630	0.8097

Southcorp Packaging:

Packaging Film -

Kiwifruit Polythene Products

Euro Bags	400 x 360 x 470mm x 30 μ	\$79 per 1000
Euro Bags	400 x 360 x 530mm x 30 μ	\$84 per 1000

Nashi Polythene Products

Polybags	500x375x25mmx30 μ (greentint)	\$95 per 1000
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Apple Carton Polybag

Standard Polybag	500 x 380 x 800mm x 30 μ (natural,punched)	\$154 per 1000
Ultrathane Polybag	500 x 380 x 800mm x 18 μ (natural,punched)	\$120 per 1000

Bin Liners

Kiwifruit Liner	1035 x 770 x 1325mm x 70 μ (natural)	\$1260 per 1000
Kiwifruit Bubble Cushion Rolls	1300mm x 60m (natural)	\$100 per roll

Pallet Wrapping Film -

Pallet Shrink Wrap

1270 x 1070mm Shrink Tubing Natural (25kg rolls)	\$4.05 per kg
1340 x 1140mm Shrink Tubing Natural (25kg rolls)	\$4.05 per kg

Pallet Stretch Wrap

500mm x 500m x 20 μ Handwrap	\$27 per 1000m roll
500mm x 450m x 23 μ Handwrap	\$27 per 1000m roll
500mm x 1850m x 20 μ Machine Wrap	\$85 per 1000m roll
500mm x 1625m x 23 μ Machine Wrap	\$85 per 1000m roll

Van Leer New Zealand Ltd:

Polythene, agricultural film

	<u>Black</u>	<u>Price Per Roll \$</u> <u>Clear</u>
50 μ - 1000mm x 100m to 4000mm x 50m	16.75 to 33.50	16.75 to 33.50
80 μ - 1000mm x 100m to 5000mm x 50m	17.60 to 44.00	22.40 to 56.00
125 μ - 1000mm x 100m to 5000mm x 50m	27.60 to 68.90	35.10 to 87.70
200 μ - 4000mm x 25m to 4000mm x 50m	43.50 to 87.90	56.00 to 111.90
250 μ - 2000mm x 50m to 4000mm x 50m	54.90 to 109.80	69.90 to 139.70

Flight Group Ltd:

Seedling tray T1686, 485 x 350 x 70mm	\$3.19
Punnets 65 x 65 x 53mm to 100 x 100 x 83mm	\$48.96 to \$102.11 per carton
152 x 108 x 63mm to 160 x 115 x 65mm	\$80.76 to \$123.81 per carton
240 x 170 x 69mm to 320 x 235 x 70mm	\$262.06 to \$463.62 per carton
Seedling tray, 485 x 326 x 50mm	\$3.06
Punnets designed to fit tray	
100 x 75 x 53mm to 150 x 100 x 55mm	\$43.62 to \$97.65 per carton
Seedling tray, 480 x 375 x 65mm	\$3.02

Punnets designed to fit tray T1805	
150 x 130 x 50mm	\$97.69 per carton
Seedling tray T2146, 345 x 295 x 45mm	\$1.79
Punnets designed to fit tray T2146	
138 x 82 x 45mm	\$74.07 per carton

Agpack Plastics Limited:

Layflat Polythene Tubing, for Heat Ducting and Packaging applications:

<u>Layflat width x</u> <u>Roll Length</u>	<u>Tube Diameter</u>	<u>Gauge</u>	<u>Price per Roll</u>
250 mm x 200 m	160 mm	100 μ m	\$69.40
500 mm x 100 m	300 mm	100 μ m	\$66.50
800 mm x 50 m	500 mm	125 μ m	\$70.15
1000 mm x 50 m	600 mm	125 μ m	\$87.20

2.11.6 Grading and Packing Charges - Horticultural Produce

Note: See also *Section 3, Export Fruit Gross Margins.*

Section 1.12.2, for Apple and Pear Marketing Board assessment of apple packing costs per TCE.

Section 1.12.4, for kiwifruit packing costs.

Contract Grading/Packing

Apples

Current charges were unavailable at time of printing (February 1996). As a guide only the following apple grading charges are given. (Canerbury)

<u>Per Bin Delivered - 25 Bushels</u>	<u>Per Bin</u>
90% pack-out	\$48
85 to 89% pack-out	\$49
80 to 84% pack-out	\$50
70 to 79% pack-out	\$52

<u>Per Bin Delivered - 25 Bushels</u>	<u>Per Bin</u>
65 to 69% pack-out	\$55
60 to 64% pack-out	\$60
55 to 59% pack-out	\$70
50 to 54% pack-out	\$70
45 to 49% pack-out	\$75
44% pack-out	\$80

Another *South Island* contractor charges \$55 per bin for packing. An additional charge of \$5 is charged if the apples are drenched (Coxes Orange and Braeburn), labelling costs work out at 40¢ per carton.

A *North Island* contractor charges \$1.10 per 18kg carton or \$24.44 per 400kg bin

Avocado

Packing charges for export Avocado export were around \$1.40 to \$1.80 per tray.

Kiwifruit

A *North Island* packing house charges the following: \$1.40 to \$1.85 per tray.
(rates differ according to amount of kiwifruit being processed).

Another packhouse charges \$1.20 to \$1.40 per tray depending on how big the grower is.
At another packhouse for completed grading, packaging, pelleting and labelling the cost is \$2.25 per tray.

Another *North Island* pack house charges the following:

	\$
Labour	0.3336
Cartage	0.0893
Shed Charge	0.1271
Packaging	0.9908
Overhead	0.0483
Lease	<u>0.0550</u>
Total	\$1.6441 per tray

Growers Packing Costs

Kiwifruit

Typical total costs are \$1.50 and approximately 25¢ extra per tray (depending on size or quantity) in Northland, \$1.60 to \$1.70 in the Auckland region, \$1.60 in the Bay of Plenty, and \$1.60 in the Hawkes Bay.

See also *Section 1.12.4* for further kiwifruit packing costs.

2.11.7 Cool Storage

Coolpak Coolstores Ltd (Timaru):

Fresh Fruit	5.0¢ per kg to freeze
Vegetables	3.3¢ per kg to freeze
Cost of Storing Frozen Goods:	
Meat	approximately \$28.30 per tonne equivalent
Vegetables	\$16 per tonne
Fish	\$14 to \$20 per tonne

Minimum charge \$35 per tonne for small parcels. All prices are for one month of storage or part thereof.

Industrial Park Coolstores Ltd (Auckland):

Cool storage rates for agricultural and horticultural produce averages out to approximately \$7.00 per pallet per week. Each product would be packaged differently, for example cartons, drums, pails etc and consequently the amount of product each client could fit onto a pallet would differ. The average weight of each pallet is one tonne.

Hornby Cool Stores Ltd:

Cold Storage Rate	2 to 4¢ per kg per month or part thereof
Blast freezing	3 to 6¢ per kg per month or part thereof plus storage

Note: The cold storage rate is the standard rate, but bins, pallets, cartons, carcasses etc. are charged on a per item basis depending on the average weight of the contents, which relates back to the base rate.

Prices vary between firms and between customers within firms depending on the type and amount of goods being stored, the length of storage time and the customers specific handling requirements.

Kiwifruit:

1996 contract coolstore costs are estimated to be about \$0.60 per tray equivalent.

2.11.8 Pollination

Hive Hire

Auckland: In general \$40 per hive for the pollination period of a crop ie. squash, pip and stone fruit. This varies for the three to four week pollination period for kiwifruit, where the hives are for pollination only and no honey is produced. In this situation hive hire is \$70 to \$75 per hive.

Christchurch: Apple pollination costs \$70 per hive and up to \$50 per hive for other crops or for small quantities.

Bumble Bees (Purchase)

Zonda Resources:

Serves 200 to 1,500 square metres	<u>Per Hive</u> \$95 to \$180
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Pollinators

FruitFed Supplies Ltd:

Wind Pollinator	\$2,000
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2.11.9 Weighing Charges

The current weighing charge at a weigh bridge in Christchurch (*Pyne Gould Guinness Ltd*) is \$5.91 per weigh.

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

Under the current economic climate and depending on the type of property, location, season etc, typical total expenses per year (excluding vehicle expenses) range from:

Dairying	
Northern North Island	\$9,000 to \$12,000
Lower North Island	\$7,700 to \$9,500
Canterbury and Northern South Island	\$4,800 to \$13,000
Otago and Southland	\$12,000
Sheep and Beef	
Northern North Island	\$3,785 to \$12,400
Lower North Island	\$3,800 to \$7,291
Canterbury and Northern South Island	\$2,523 to \$7,500
Otago and Southland	\$4,100 to \$8,068
Orchards	
Northern North Island	\$3,229
Lower North Island	\$4,400
Canterbury and Northern South Island	\$7,000 to \$9,300

Source: M.A.F. Farm Monitoring Report, January 1996.

2.12.2 Repairs and Maintenance - Farm Improvements and Plant

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%	

2.12.3 Repairs and Maintenance - Vehicles and Mobile Plant

(See also *Section 2.13*)

Where precise information is unavailable, expenditure on repairs and maintenance of vehicles and mobile plant may be estimated by using the following rates:

Cars and light trucks	allow 7.7 to 9 cents per km
Tractors	allow 100% of purchase price spread over the economic life of tractor - see examples in <i>Section 2.13.2</i>
Mobile plant	allow 5% of initial value per annum.

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:

	Sheep/Beef/Dairy and Deer farms
Northern North Island	\$6,900 to \$8,040
Lower North Island	\$5,500 to \$10,500
Canterbury and Northern South Island	\$6,000 to \$14,756
Otago and Southland	\$9,700 to \$24,500

	Orchards
Northern North Island - Kiwifruit	\$4,760
Lower North Island - Apples	\$7,152
Canterbury and Northern South Island - Apples	\$11,200 to \$11,500

Source: MAF Farm Monitoring Report, January 1996.

For details see individual items in this section.

See also *Section 2.12.3* for estimates of the repairs and maintenance component of expenditure on vehicles.

2.13.2 Tractor Running Costs

Guide to Tractor Fuel Requirements for Individual Field Operations.

<i>Operation</i>	<i>Fuel Consumption litre/ha</i>
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.)

<u>Tractor Power</u>		<u>Minimum Cultivation</u>	<u>Normal Cultivation</u>
<u>HP</u>	<u>kW</u>	<i>(0.24 l per kW hr)</i>	<i>(0.32 l per kW hr)</i>
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 \$75,073; Resale Price \$39,896

Running: Average 580 hours per year

Fixed costs per annum:

Opportunity cost \$75,073 at 7% (Real)	\$5255.00
Replacement cost \$75,073 to \$39,896	
\$35,177 x sinking fund factor (7% for 6 years) 0.139796	\$4918.00
Annual licensing fee	\$35.10
Insurance	\$523.85
	\$10,731.95
Total fixed cost per hour (580 hours/year)	<u>\$18.50</u>

Variable costs per hour:

Fuel usage - 18 litres at 46¢/litre	\$8.28
- based on minimum cultivation conditions	
Oil and filters 15% of fuel cost	\$1.24
Repairs and maintenance 100% of purchase price over 'economic life' of tractor (10000 hrs)	\$7.51
Total variable costs per hour excluding labour	<u>\$17.03</u>
Total cost (fixed plus variable) per hour	<u>\$35.53</u>

(ii) 75 kW (100 HP) 4WD Tractor

Replaced after 3500 hrs (6 years)
Initial Cost \$91,630; Resale Price \$53,691
Running: Average 580 hours per year

Fixed costs per annum:

Opportunity cost \$91,630 at 7% (Real)	\$6414.10	
Replacement cost (\$91,630 to \$52,691)		
\$38,939 x Sinking fund factor (7% for 6 years) 0.139796	\$5443.50	
Annual licensing fee	\$35.10	
Insurance	\$650.00	
		\$12,543.00
Total fixed cost/hour assuming 580 hours per year		<u>\$21.61</u>

Variable costs per hour:

Fuel usage - 18 litres at 46¢/litre	\$8.28	
- based on minimum cultivation conditions		
Oil and filters 15% of fuel cost	\$1.24	
Repairs and maintenance 100% of purchase price over 'economic life' of tractor (10000 hrs)	\$9.16	
Total variable cost per hour excluding labour		<u>\$18.68</u>
Total cost (fixed plus variable) per hour		<u>\$40.29</u>

(iii) 95 kW (124 HP) 4WD Tractor

Replaced after 4000 hours (6 years)
Initial Cost \$106,494; Resale Price \$61,767
Running: Average 670 hours per year

Fixed costs per annum:

Opportunity cost \$106,494 at 7% (Real)	\$7,455.00	
Replacement Cost (\$106,494 to \$61,767)		
\$44,727 x Sinking fund factor (7% for 6 years) 0.139796	\$6,253.00	
Annual licensing fee	\$35.10	
Insurance	\$788.85	
		\$14,522.00
Total fixed cost/hour assuming 670 hours per year		<u>\$21.67</u>

Variable costs per hour:

Fuel usage - 24.9 litres at 46¢/litre	\$11.45	
based on minimum cultivation conditions		
Oils and filters 15% of fuel cost	\$1.72	
Repairs and maintenance 100% of purchase price over 'economic life' of tractor (10000 hrs)	\$10.65	
Total variable cost per hour excluding labour		<u>\$23.82</u>
Total cost (fixed plus variable) per hour		<u>\$45.49</u>

2.13.3 Car Operating Costs

Based on AA estimates, total annual car operating costs (as at May 1995) were:

	Running cost	Fixed cost	Total cost
up to 1300cc	\$1,922	\$4,731	\$6,653
1301 to 1600cc	\$2,088	\$5,991	\$8,079
1601 to 2000cc	\$2,340	\$7,252	\$9,592
over 2000cc	\$2,772	\$8,241	\$11,013

Running cost includes petrol, oil, tyres, repairs and maintenance.

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)	78.54 cents per litre.
	- Super (96 octane)	83.40 cents per litre.
Diesel		46.02 cents per litre.
LPG		58 cents per litre.

Note: The current refund rates for fuels are:

Petrol - 10.58 cents per litre

LPG - 9.45 cents per litre

CNG - \$3.57 per gigajoule

Oil - One major N.Z. Company's oil prices:

	<u>Container Size</u>	<u>Wholesale Delivered</u>
Universal Tractor Oil20	209 litre	\$2.81 per litre
Gear Oil 80 EP	60 litre	\$3.07 per litre
(Two Stroke Oil)	60 litre	\$3.03 per litre
Multi-purpose grease L2M	18 kg	\$4.57 per kg
Hydraulic Fluid HLP46	60 litre	\$2.42 per litre
Antifreeze	20 litre	\$4.26 per litre

2.13.5 Tyres and Tubes

Firestone:

Tubes: Price each
 Tractor/Earthmover/Forestry and Loader tubes, 9-24 to 30.5-32 \$40.50 to \$290

Tyres:
 Radial 45 degree rear tractor tyres, 11.2R24F7000 to 18.4R38F7000 \$720 to \$1,895

Cross-ply rear tractor tyres, 9-20ATC6 to 11-42RT10 \$435 to \$1,277

Farm/implement/utility tyres,

- All trac utility, 12/12.5-18ATU12 to 16.9-28ATU10 \$748 to \$1,186
- Rancher, 400-12RANCH4 \$98
- Open centre, 600-16/6T133 to 750-16/8T133 \$180 to \$305
- Farm, 10-15.3FARM10 to 11.5-15.3FARM16 \$263 to \$400

Exemptions Include:

Vehicles licensed as E Class A:

- mobile machinery never used on roads except for servicing at a garage or driver testing.

Vehicles licensed as E Class B:

- farm machinery with restricted road usage.

Vehicles not required to be registered under the Transport Act 1962.

Vehicles exempt from registration and annual licence fees.

Two-wheeled vehicles whose gross laden weight is less than 1 tonne.

Time Licences (for off-road vehicles) - Consult New Zealand Post for these charges.

Distance Licences

Distance licences are classified according to whether the vehicle is powered or unpowered, the number of axles on the vehicle, the number of tyres per axle, and the axle spacing.

As there are so many variables in the computation of rates we have given two examples:

Charges are given in dollars per 1000kms of distance to which licence relates:

Type 1, i.e 2 axles, both single tyred

- 5 tonnes gross laden weight \$31.95
- 10 tonnes gross laden weight \$127.69
- 15 tonnes gross laden weight \$483.98

Type 2, i.e 2 axles, 1 single tyred and 1 twin tyred

- 5 tonnes gross laden weight \$30.15
- 10 tonnes gross laden weight \$98.78
- 15 tonnes gross laden weight \$337.84

When the distance licence is exhausted, a new licence must be obtained. The nominated maximum weight may be increased by either obtaining a new licence or obtaining a supplementary licence.

Refunds of Road User Charges may be payable in a variety of circumstances e.g.:

- Incorrect licence details
- Unused time licence
- Unused distance due to hubodometer change or number plate change
- Low weight refund
- When a vehicle is permanently destroyed, exported or deregistered

All vehicles requiring distance licences must be fitted with an approved distance recorder in working order. Hubodometers are required where the gross laden weight exceeds 3.5 tonnes.

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 \$220,000; Trade in Value \$90,000

Fixed costs per annum:

Opportunity cost \$220,000 at 7% (Real)	\$15,400.00	
Replacement cost (\$220,000 - \$90,000)		
\$130,000 x sinking fund factor		
(7% for 15 years) 0.039795	\$5173.35	
Annual licence (6 months)	\$35.10	
Insurance	\$2252.00	
		\$23,160.00
Total fixed costs per hour assuming 200 hrs per year		<u>\$115.80</u>

Variable costs per hour:

Fuel (.24 litres/kW hr) 30.48 litres at 46c/litre	\$14.02	
Oil and filters 15% of fuel cost	\$2.10	
Repairs and maintenance 100% of purchase price over economic life (5000 hours)	\$44.00	
Total variable costs per hour excluding labour		<u>\$60.12</u>
Total costs (fixed plus variable) per hour		<u>\$175.92</u>

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 account 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. G.S.T. returns, budgetary control, receiver/payee of all income/expenditure for the farmer.

An approximate range of fees typically charged for Pastoral and Cropping farms would be from \$1800 to \$4000 per annum, depending on service provided, with a typical fee being around \$2700.

2.14.2 Farm Consultancy Charges

Consultancy charges are usually based on an hourly rate. Travelling and administration expenses and computer time charges are all extra.

	Area Averages:
Waikato/North Area	\$98/hour
Central/Wellington Area	\$110/hour
Canterbury/Nelson/West Coast area	\$73/hour
Otago/Southland	\$72/hour

Source: New Zealand Society of Farm Management, Consultancy Charges Survey (November 1995)

Agriculture New Zealand:

Agriculture New Zealand provides a full range of agricultural, horticultural and agribusiness consultancy as well as providing assistance with resource consents.

Consultancy fees range from \$250 to \$350 per half day.

Travelling is charged at \$0.60 per kilometre, administration at \$30 per hour and other disbursements are also charged at cost.

Lincoln University Property Management Service:

The *Property Management Service* is an independent body that promotes farming agreements and provides, for a fee, standard leasehold, partnership and sharefarming agreements for farmers and horticulturalists.

Standard Fee \$500

This fee is subject to variation for additional work involved above the cost of a standard contract.

2.14.3 Legal Fees

The former system of a New Zealand wide scale of minimum and maximum charges has been abolished. Fees are now worked out on a more appropriate basis, taking into account the nature of the job and expenses incurred by the solicitor or law firm. In general they are based on an hourly rate (in the region of \$150.) Lawyers are now encouraged to give written estimates for the cost of a job. Anyone seeking a solicitor's help or advice should ask for an estimate (in writing) and both parties should have a clear understanding of what work that estimate is to cover.

Property Purchase

Fees charged vary widely depending on circumstances and how much work is involved. Generally around \$600 to \$1000 for the average situation, depending on whether there is finance and land valuation consent required.

Where an application is required to gain Land Valuation Consent, the purchaser must pay an application fee of \$200 to the Land Valuation Tribunal.

A curtilage calculation must be submitted to IRD for stamp duty and GST purposes. (Generally the value of the house and the land around it is excluded from the calculation). The calculation may be included in a valuer's report or by way of a certificate from Valuation New Zealand, at a cost of around \$75.

Stamp Duty (This is paid by the Purchaser)

Up to \$50,000 - 1%

\$50,000 to \$100,000 - \$500 plus 1.5% of excess over \$50,000.

Over \$100,000 - \$1,250 plus 2% of excess over \$100,000.

No duty is payable on the value of land or buildings to be used primarily as a residence. Stamp duty payable on farm properties is reduced where one or more of the purchasers does not hold or has not held an interest in farm land exceeding \$150,000. In these cases, the "new" purchaser must actively farm the property, which means to personally supervise, manage or carry on the business of farming as their principal occupation.

In cases where a number of people are jointly purchasing the property and none of them has held an interest in farm land (as detailed above) no duty is payable.

Family Trusts

A trust is a legal arrangement between two parties where one party (the trustee) holds assets for the benefit of others (the beneficiaries). The trustee is the legal owner of the trust assets but is not normally a beneficiary of the trust.

Before estate duty was abolished in 1992, trusts were regarded as a way for wealthy people to avoid costly estate duties. Contrary to popular belief, trusts have been used more often as a way to manage the transfer of assets from one generation to another.

Guardian Trust:

Charges are based on the complexity of the trust and time spent thereon, however, for the preparation of a standard trust the cost is \$250.

2.14.4 Land Transfer Fees

This fee is charged by the *Land Titles Office* on all land transactions, such as transfers, mortgages and related documents.

The cost of an ordinary transfer of title is \$115.00. If the land is in more than one title the cost of transferring each additional title is \$5.00.

In subdivision situations the fee for each new title is \$90.00.

2.14.5 Real Estate Charges

There is now no scale nor 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:

\$375 basic fee, plus 3.75% commission on the first \$200,000 of consideration, this may vary from 3 to 4% depending on circumstances. Plus 1.5% commission on balance of consideration. The general criteria by which agents fix fees now relate to the level of professional services which the individual company offers. When vendors select intensive marketing programmes, higher fees may be levied. If vendors participate in advertising costs then lower basic fees may be rendered. Sole agencies may attract lesser fees than general agencies.

Auction Sales (Sales other than mortgagee sales):

In general these are levied at the same rate as residential sales. The auctioneer may, in addition, with the vendor's authority, charge to the vendor all auction advertising, flagging, other promotional costs and disbursements.

In addition, an auctioneer may levy an offering fee if the property is not sold at auction or, alternatively, seek a term of sole agency after the auction sale to enable a sale to be concluded.

2.14.6 Valuation Charges

Valuation charges are no longer subject to the minimum scale of charges as set by *The New Zealand Institute of Valuers*. Valuers may now set their own charges which are usually based on an hourly rate and vary depending on the degree of skill or responsibility required, expenses incurred and other factors. Travelling allowance (mileage) is normally charged at the average State Service rate.

Examples:

- For a valuation of a 366 ha property in North Canterbury (value \$950,000), The valuation would take approximately 12 hours and cost \$1,000 to \$1,200 (plus travel and GST).
- For a valuation of a small (100 ha) pastoral property - about \$500 (plus travel and GST).
- For a valuation of a 10 ha pipfruit property (value \$500,000), the cost would be about \$800 to \$1,000 plus GST (at least one day's work).
- For a glasshouse property (about ½ day) - \$500 to \$800.

2.15 ADMINISTRATION EXPENSES

Refer also to *Section 2.14 Professional Fees*.

Total annual administration expenses vary widely between farms and orchards.

The following are indicative costs:

	Sheep and Beef
Northern North Island	\$9,700to \$13,150
Lower North Island	\$8,350 to \$16,300
Canterbury and Northern South Island	\$7,000 to \$16,900
South Region	\$9,500 to \$15,730
	Dairying
Northern North Island	\$9,600- \$12,000
Lower North Island	\$10,200- \$12,650
Canterbury and Northern South Island	\$9,300- \$12,600
Otago and Southland	\$14,260
	Orchard
Northern North Island - Kiwifruit	\$6,500
Lower North Island - Pipfruit	\$3,888
Canterbury and Northern South Island - Apples	\$7,000- \$7,800
Otago and Southland	-

Source: M.A.F. Farm Monitoring Report, January 1996.

2.15.1 Telephone Costs

Telecom - Canterbury:

Standard Residential Network Connection Charge	\$55.00
Change of customer name	\$35.00
<u>Line Rental</u> (per month):	
Standard Residential	\$31.88
Standard Business - with Local Call Charging - Individual	\$60.42
Non-standard Business - B1 - Individual	\$91.30
Non-standard Business - B2 - Individual	\$67.48
<u>Telephone Rental</u> (per month):	
Standard Business Rental Phone	\$3.56
Standard Residential Rental Telephone	\$3.56
Second and subsequent	\$3.56
<u>Wiring Maintenance Charge</u> (per month) - optional	\$0.45
Minimum call out charge:	
Business	\$30.00
Residential (Applies if telephone is not owned by Telecom)	\$30.00
<u>Hourly charge out rate outside normal hours:</u>	
Residential	\$44.00
Business (depends on work done)	\$44 to \$89
Special Listing (per month)	\$2.25
Calls to Cellular phones (per minute)	\$0.63

Toll Charges - Refer to Telephone Directory

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 99 cents a minute. Forecasts for each region can be obtained by 'phoning **0900 999** then the STD number for the region. e.g. 03 for Canterbury.

Also:

N.Z.Brief Forecast	0900 999 64
N.Z.Mountain Forecast	0900 999 66

Premium MetPhone - this additional service is available for those who would like to have access to a Weather Office for discussion on a weather situation. The cost is \$9.00 per consultation. Further information about the service can be obtained by telephoning a New Zealand Met. Service Weather Office (not the above numbers).

2.15.2 Postage

(These prices are **GST inclusive**)

Surface Mail - Inland:

Standard letters - 40¢.

Fast Post - 80¢.

Non-standard articles:

<u>Envelope size</u>	<u>Standard Post</u>	<u>Fast Post</u>
Medium (up to 120mm x 235mm)	\$0.40	\$0.80
Large	\$0.80	\$1.20

Parcels

New Zealand is divided into six zones and postage rates vary accordingly between zones.

A 2 kg parcel ranges from \$2.50 to \$5.50 (Standard Post), and \$4.00 to \$8.80 (Fast Post).

A 20 kg parcel ranges from \$2.50 to \$24.00 (Standard Post), and \$11.00 to \$34.00 (Fast Post).

Across town delivery (by the working day):	up to 1kg -	\$2.00
	1 to 20kg-	\$2.50

2.15.3 Courier Charges

New Zealand Couriers:

Courier Tickets (5/15/25 kg)

Example Christchurch:

Boundaries

1 ticket/25kg	Local -Lyttelton, Sumner, Airport, Islington, Belfast	\$3.00
1 ticket/25kg	Outer -Amberley, Darfield, Rakaia (70km)	\$5.35
1 ticket/15kg	Short-haul -West Coast, Methven, Waimate, Kaikoura	\$6.45
1 ticket/5kg	Long-haul -Rest of South Island	\$9.90
1 ticket/5kg	Inter-Island -Stewart or North Island	\$19.70

Example Hamilton:Boundaries

1 ticket/25kg	Local -Te Rapa,Chedworth,Hillcrest,Dinsdale,Glenview and Airport	\$3.00
1 ticket/25kg	Outer -Waikato, King Country, Thames Valley	\$3.62
1 ticket/5kg	Short-haul -Auckland	\$5.25
1 ticket/15kg	Short-haul -Bay of Plenty, Coromandel Peninsula	\$5.25
1 ticket/5kg	Long-haul -Rest of North Island	\$7.88
1 ticket/5kg	Inter-Island -To all South Island destinations	\$15.23

International Rates:

Zone	<u>0.5 kg</u>	<u>1 kg</u>	<u>5.0 kg</u>	<u>10 kg</u>
Australia/Fiji	\$12.60	\$22.70	\$99.40	\$151.40
Southeast Asia/Pacific	\$28.90	\$42.80	\$154.00	\$258.50
UK, USA, Canada	\$40.45	\$61.25	\$227.65	\$323.65
All Others	\$52.00	\$75.10	\$249.80	\$363.80

T.N.T. Couriers:

Citywide ticket up to 25kg		\$4.30
Regional ticket (150km radius)		\$6.00 per 5kg or part thereof
Within an Island		\$9.00 per 5kg or part thereof
Between the Islands		\$16.50 per 5kg or part thereof
Supamail 1 (Standard letter)	up to 500 gm	\$2.50
Supamail 2 (440mm x 160mm)	up to 500 gm	\$3.60
Supamail 3 (380mm x 260mm)	up to 1 kg	\$4.50
Supamail 4 (460mm x 320mm)	up to 2 kg	\$6.00
Supamail 5 (400mm x 510mm)	up to 3 kg	\$10.50

2.15.4 Subscriptions (Magazines/Farming Organisations)

Some examples are:

Magazines

"New Zealand Farmer"	\$91.00 per year or \$2.10 per copy
"Dairy Exporter"	\$21.88 per year
"Straight Furrow"	Free
"Horticultural News"	\$4.38 per copy
"The Orchardist"	\$63.00 per year
"The Main Report Agricultural Letter"	\$84.44 per year
"The Deer Farmer"	\$63 per year (10 issues)

Organisations*Young Farmers*

Full member:	\$40.00
Associate member: e.g. advisory member	\$10.00
Junior (under 18)	\$10.00
Full time tertiary student (require documentation)	\$10.00

Federated Farmers (Canterbury)

Corporate member:	\$350
Owner:	\$220
Sharemilker	\$140
Small farmer:	\$140
Associate member:	\$70

2.15.5 Aerial Photographs and Farm Maps

Aerial Photographs

Department of Survey and Land Information.

Note: Prices are approximate only, firm quotes are given on request.

Black and white enlargements are available in a wide range of sizes. Approximate costs for four different sizes are given below. A \$17.00 handling charge is to be added.

Unmounted:

<u>cm</u>	<u>Up to 6.25 x</u> \$	<u>Beyond 6.25 x</u> \$	<u>Extra Copies</u> \$
34 x 46	34.00	46.00	24.00
70 x 70	52.00	64.00	36.00
95 x 95	76.00	88.00	54.00
120 x 140	-	168.00	108.00

Mounted Enlargements on Cotton:

34 x 46	38.00	50.00	28.00
70 x 70	58.00	70.00	42.00
95 x 95	86.00	98.00	64.00
120 x 140	-	184.00	124.00

Mounted Enlargements on Canvas or Hardboard:

34 x 46	42.00	54.00	32.00
70 x 70	64.00	76.00	48.00
95 x 95	100.00	112.00	78.00
120 x 140	-	212.00	150.00

Mosaic on Canvas or Hardboard (each portion):

34 x 46	46.00	58.00	36.00
70 x 70	70.00	82.00	54.00
120 x 120	182.00	194.00	142.00

Farm Maps

Department of Survey and Land Information

Note: Prices are approximate only, firm quotes are given on request.

The Department offers a mapping service to farmers, whereby farm maps can be prepared from aerial photographs. Maps can be prepared to suit individual requirements and may include:

- Paddock area calculations only.
 - Paddock area calculations, fencelines, etc. redrawn in ink, paddock numbers/names/areas noted and 50 reduced copies of the map are included.
 - Same as for B) 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.

2.15.6 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.

2.15.7 Bank Fees and Stock Company Charges

(see *Section 2.17 Financial Charges*)

2.16 STANDING CHARGES

2.16.1 Insurances

A typical farm package insurance cost in the Canterbury region is approximately \$1800 to \$2000. This includes insurance for vehicle, buildings, house and contents and public liability. The range of costs can vary greatly from as little as about \$800 to \$1000 for a sharemilker, to \$10,000 or more for a crop farmer with plentiful plant and machinery and crop insurance costs of say \$4000.

Typical Charges are as follows:

All premiums vary with the nature of the risk and value of items but some examples are:

Buildings:

Dwelling - 200 square metres (\$100 excess)	\$245.10
Woolshed - \$100,000 value (\$500 excess)	\$345.35

Plant and Machinery:

	<u>Annual Premium</u>
Tractor - Value: \$10,000	\$98.90
\$50,000	\$382.20
\$75,000	\$523.00
\$90,000	\$650.00
\$100,000	\$788.85
Premium includes tyre cover (\$100 excess)	
Utility - Value: \$20,000 including windscreen cover	\$229.75

Specialised Farm Equipment

Chainsaws, tools, scanaprobe, nitrogen containers, radio telephones etc.

\$5,000 farming plant, machinery, tools and equipment (\$100 excess)	\$31.60
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Wool:

\$5,000 worth of clipped wool, (\$100 excess)	\$31.60
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General Farm Produce and Manures: whilst on the farm	\$0.362 per \$100
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Income Protection

Premiums vary because of such factors as age, health, smoking etc.

As an example: Age 40, Male, non-smoker

Total Disablement from illness/sickness	\$150 per \$100 cover
(Cover for an income of \$500 per week would cost $150 \times 5 = \$750$ per year)	

Public Liability - to cover legal liability arising from negligence of employees and principals. Cover can be sought from Fines and Defence costs under the Health and Safety in the Workplace Act and employers liability resulting from the compression of cover offered under the Accident Compensation and Rehabilitation Act.

Cover inclusive of the above options:

\$500,000	Premium is \$45.00
-----------	--------------------

Stock Insurance

Wrightson:

See also advertisement on the back page of Manual

Livestock on farm (fire and electrocution only)	\$0.08 per \$100
The following charges are for mortality and loss of use by accident, illness and disease:	
Pedigree bulls:	8.5% of value for 12 months
Run bulls:	10.00% of value for 12 months
Stud rams:	10.00% of value for 12 months
Deer - Stag:	12.00% of value for 12 months
Deer - Hinds:	9.00% of value for 12 months

Note: All the prices/quotes include all earthquake and fire service charges.

Crops

Pyne Gould Guinness (1995 contracts for 1996 crops)

Option A: Combined perils cover over cereals for fire, windstorm, hail, flood, snow, frost, wandering stock and malicious damage.

Premium rate of 2.5% per \$1,000 insured.

Option B: Restricted cover available for peas and small seed crops. The cover is for the same elements as in option A, excluding wind damage.

Peas - Premium rate of 2.00% per \$1,000 insured.

Small seeds - Premium rate of 3.00% per \$1000 insured.

Option C: Fire cover only for all crops.

Premium rate \$5.00 per \$1,000 insured.

For wheat growers the cover provides a 'Top Up' over the \$200 per tonne payable under the wheat scheme at a rate of \$20.00 per \$1,000 insured including windstorm damage.

Note: Wind, hail and frost damage will not be paid unless the damage exceeds 30% of the expected yield.

The insured shall bear the following amount of all losses,

- Fire, lightning or explosion - Excess Nil.
- Hail, frost or windstorm - Excess 15%.

Except where there have been one or more claims notified in the previous 3 years for crop loss or damage at the property caused by the same peril the excess shall be - 30%

- All other losses - Excess 15%.

2.16.2 Accident Compensation Commission Levy

There are two forms of this levy

1. Levy on the farmer as an employer (% of wages paid)
2. Levy on the farmer as a self employed person (% of taxable income)

Both are tax deductible and are detailed in *Section 4.15.7*.

2.16.3 Rates

See *Section 2.18.8* for stock water supply charges.

The main classes of rates are as follows:

- General rates for the costs involved in administering the District.
- Special rates for Regional Councils
- Special rates for repayment of loans, raised by any local body.
- Water supply charges where stock water is supplied by and local body, e.g. water races, District water schemes.
- Pest Destruction Board rates where the farm is in a Board district.
- All districts rate on either the Capital or Land values. Water and pest destruction rates may be assessed on either per hectare, Capital value or Land value basis.

Some examples are;

Horowhenua District Council:

Rates are levied on the rural sector as follows:

Uniform annual general charge	\$84
Rural rate	0.4366 cents in \$1 land value

Selwyn District Council (Canterbury):

1995/96 General Rate collected on by the District Council on behalf of the Canterbury Regional Council: (Rates are cents in the dollar, based on the rateable capital value, and are GST inclusive.)

All districts have a general purpose fee: 0.001803 of C.V

Charges	Ellesmere	Malvern	
Paparua			
Annual General:	\$75	\$75	\$75
Community Centre:	-	\$22.50	-
Recreation Reserve:	\$11.25	-	-
Library and Medical Centre:	\$40.30	\$72.05	-

In addition, the Selwyn District Council collects other rates such as water supply levies which are based on a percentage of capital value. Drainage rates etc. come on top of this. As an example a farm property with a capital value of \$550,000 in the Malvern area would pay \$2,208 in rates. This includes water race charges of \$601, and pest board rates.

Manawatu District council:

- Works and Services Separate Rate:
Revenue sought \$3,614,910 to be applied to roading, footpaths, refuse tips.
Amount varies depending on the category of the property.
- General Rate:
Revenue sought \$3,834,202 to be applied to democracy, community services, library, Makino Aquatic Centre, reserves, civil defence and other costs not otherwise specified in rates specified, again the amount depends on the category of the property.

- **Uniform Annual General Charge:**
A Uniform annual general charge pursuant to section 19 of the rating powers act 1988 amounting to \$150 on every separately rateable property within the district
- **Uniform Annual Charges:**
Uniform annual charges pursuant to the provisions of the rating powers act 1988 on separately rateable properties as depending on the area. The costs are related to water supply charges and sewerage charges etc.
- **Special Rates** applying to certain areas due to the repayment of annual loan charges in respect of sewerage and water supply loans.
- **Drainage Separate Rating Areas:** applying to different drainage areas due to maintenance and development of the drainage systems.
- **Manawatu - Wanganui Regional Council Rates:**
 1. A general rate
 2. A separate transport rate
 3. A separate Lower Manawatu Scheme special and maintenance rate.
 4. A separate Rangitikei scheme maintenance rate.

2.16.4 Rent on Leased Land

Pastoral/Arable Land

Canterbury:

The rate for leasing land for stock grazing is in the vicinity of \$10.00 per stock unit. The lessee pays the rates, fertiliser and carries out routine maintenance work.

Paddock lease-

Potato Ground (with facility for irrigation) - in the vicinity of \$700 per hectare per year.

Larger areas of cultivable land in the vicinity of \$400 per hectare per year.

Southland:

Dairy run-off blocks	\$370 to \$450 per hectare
Dairy run-off, partly milked	\$500 per hectare
Sheep and Beef	\$150 to \$250 per hectare
Sheep/Beef/Cropping	\$250 to \$320 per hectare

Waikato:

Dairy Properties - Farms are typically leased for \$1.70 to \$2.00 per kg milkfat or \$850 to \$1,000 per ha, while land suitable for dairy heifer grazing is leased at \$500 to \$700 per ha. Sheep and cattle farms vary as to the type of farming enterprise able to be undertaken, and range up to \$110 per ha or \$10 per s.u. For the harder hill areas a reasonable rate would be in the vicinity of \$5 to \$6 per s.u.

Manawatu:

Hill country	\$50.00 to \$80.00 per hectare
Dairy Run-off	\$400 to \$500 per hectare
Easy Hill	\$150 to \$200 per hectare
Cropping/Dairying land	\$600 to \$700 per hectare
Potato land	\$700 per hectare

Bay of Plenty:

Dairy Properties

\$620 to \$860 per hectare

Drystock

\$180 to \$495 per hectare

Crown Land

Renewed Rents on Crown Renewable Leases are 4.5% of Rental Value, as from 1971 (reducible to 4% for prompt payment). Short term lease rents usually assessed within the range of 4% to 6% of Capital Value.

Note: Rental Value is the Land Exclusive of Improvements plus Crown Improvements.

Pastoral Leases - 2.25% of Rental Value, as from 1979, (reducible to 2% for prompt payment).

Renewable Leases: 33 year terms, 11 year rent rests at 4.5% of Rental Value (reducible to 4% for prompt payment).

2.17 FINANCIAL CHARGES

2.17.1 Cost of Finance (see also Sections 2.17.2, 2.17.3 and 2.17.4)

Source: *New Zealand Farmer*, February 1996.

Lending Organisations gave quotes (as at 8 February 1996) for a hypothetical farmer who required \$200,000 first mortgage and seasonal finance of up to \$50,000. The average overdraft was \$20,000 and was needed for seven months; with five months in credit (average \$15,000). The hypothetical farm was a 3250 stock unit sheep and beef farm, with above average performance and credit risk. Land value was \$600,000 and the seasonal loan was secured over \$175,000 worth of stock and plant.

Note: These survey notes were prepared by *Agri-Fax* - they state:

It is important to realise the banks have quoted on a specific package and care must be taken when relating this to your own situation. This survey is essentially a snapshot of the rural lending scene where interest rates and charges are constantly under review. The rates quoted may be available to existing borrowers or just to new clients. Factors other than costs are important e.g. level of service, personal relationships, and understanding of the business.

The approach taken has been to ask each of the lending organisations to quote on the same specific farm situation.

Seasonal Loan (\$50,000) 7 Months in Debit

Name	Investigation Establishment Fees (\$)	Interest Rate Base (%)	Margin (%)	Other Fees Per 3 Months (%)	Cheque (25) \$/Month (\$)	Yearly Net Cost (\$)
ANZ	0	11.1	0.0	0.35	2.00	\$1,197
BNZ	0	11.85	0.0	0.0	8.50	\$744
Nat. Bank Free Plan	250	10.9	1.2	0.0	10.00	\$825
PIBA	50	10.6	0.0	0.0	8.50*	\$1,526
Westpac	260	10.28	0.0	0.3	9.75	\$1,326
ASB Bank	0	10.0	1.85	0.0	10.00	\$762
Southland Building & Investment Society	100	10.9	0.0	0.0	8.50*	\$1,022

* Denotes no cheque facility, BNZ rates used in the calculations.

Name	Investigation	Interest Rate		Other Fees	Cheque (25)	Yearly
	Establishment	Base	Margin	Per 3 Months	\$/Month	Net Cost
	Fees (\$)	(%)	(%)	(%)	(\$)	(\$)
Trust Banks:						
Waikato	200	11.15	0.0	0.16875	9.50	\$1,095
B.O.P.	200	11.15	0.0	0.1875	9.50	\$1,133
Central	200	11.15	0.0	0.1875	9.50	\$1,133
Canterbury	200	11.15	0.0	0.1875	10.00	\$1,045
South Canterbury	200	11.15	0.0	0.1875	9.50	\$1,133
Otago	200	11.15	0.0	0.1875	10.00	\$1,045
Southland	200	11.15	0.0	1.6875	10.00	\$1,101

Notes - Seasonal Loan (from table above)

1. The set up costs are spread over 5 years.
2. The "Other Fees" include Line, Service and Facility fees and are shown as a quarterly charge. Their cost is based on the maximum seasonal advance and the impact on the cost of borrowing can be very high if the current account is rarely in overdraft. With a few banks this cost can be reduced significantly if the overdraft limit is adjusted regularly. Some lenders do not have this type of fee.
3. The cost of operating a cheque account using 25 cheques per month is shown. In the Yearly Net Cost calculation, the BNZ cheque costs are used for organisations not providing a cheque facility.
4. The "Yearly Net Cost" includes the yearly cost of any setup fees, the total interest cost of the \$20,000 borrowed for the 7 months, the "Other Fees", the yearly cheque costs, and a credit for interest accrued during the 5 months of current account surplus. (The first \$7,500 only earns interest if interest is credited automatically. The next \$7,500 is invested to best advantage. Those banks offering a revolving credit package without a cheque facility are not credited with interest on the first \$6,000 of current account surplus because of the need to maintain a separate cheque account.)
5. Unlike the term loan this total cost is expressed as a dollar value, because cheque fees do not relate to the amount borrowed. The effective seasonal net interest percentage can be calculated by deducting the yearly cheque costs and dividing by the average yearly overdraft (\$11,667).

See over page for Term Loan Information

Term Loan (\$200,000) 15 Years

Name	Investigation Establishment Fees (\$)	Interest Rate (%)	Risk Margin	Effective Cost %	Total Term Cost
ANZ	0	9.71	no	10.3%	\$21,550
BNZ	750	9.68	yes	10.2%	\$21,068
Nat. Bank Freeplan	500	9.46	yes	9.9%	\$20,669
PIBA	200	9.07	no	9.5%	\$20,501
Westpac	740	9.37	no	9.9%	\$21,185
ASB Bank	200	9.45	no	9.9%	\$20,545
AMP	1,000	9.2	no	9.7%	na
NZI Guardian Trust	1,000	10.25	no	10.7%	na
Southland Building & Investment Soc.	200	9.9	no	10.4%	\$21,799
Trust Banks:					
Waikato	500	9.0	yes	9.5%	\$20,052
B.O.P.	500	9.0	yes	9.5%	\$20,090
Central	500	9.0	yes	9.5%	\$20,090
Canterbury	500	9.0	yes	9.5%	\$20,002
S.Canterbury	500	9.0	yes	9.5%	\$20,090
Otago	500	9.0	yes	9.5%	\$20,002
Southland	500	9.0	yes	9.5%	\$20,058

Notes - Term Loan

1. The financier's establishment charges, along with additional legal and valuation charges of \$1350 (unless advised differently) are spread over the 15 year term.
2. The effect of the different repayment periods is built into the final cost. For example, for a loan with a nominal interest rate of 10.00% where interest is paid monthly, the effective rate is 10.5%.
3. Likewise if the principal is reduced ("rested") less often than payments, then the effective rate is increased slightly.
4. The "Effective Cost %" is made up of the yearly cost of the front end fees, along with the effective interest costs and is expressed as a percentage of the \$200,000 loan.
5. The "Total Combined Cost" on the extreme right combines both Seasonal and Term to give an overall picture.

Source: NZ Farmer, February 1996.

2.17.2 Interest and Bank Charges (See also *Section 2.17.1*)

Important Note:

Interest rates quoted below are as at February 1st 1996 unless otherwise stated. Readers are advised not to rely on these figures for budgeting purposes as market interest rates can change rapidly.

Trading Banks

ASB Bank:

The ASB bank through its nation-wide branch network offers a comprehensive farm management banking package. This package is delivered and managed by a team of tertiary qualified Rural Managers.

Term Loans:

- Term:
 - Up to 25 years with up to 5 years interest only
 - Up to 7 years for sharemilkers
 - May be table or reducing
- Pricing:
 - Variable rates
 - Fixed rates up to 5 years
 - Commercial Bill related
 - An establishment fee may be charged
- Security
 - Registered first mortgage over land. Livestock security may also be required. Usual minimum loan to 60% of Bank's valuation

Seasonal Finance:

Farmline Overdraft:

- Incorporates seasonal and revolving credit facilities (i.e. capital requirements)
 - An agreed limit may be set high enough to have funds in reserve
 - Pays daily interest on credit balances
 - Has ability to direct credit income
 - Withdrawals by cheque, EFTPOS, ATM's, fastphone, and Gateway (computer banking facility)
- Security:
 - As per the term loan
- Term:
 - The 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)

Other Services:

- Investment and savings accounts
- Retirement saving schemes
- Farm Insurance
- ASB Bank Visa

Bank of New Zealand:

The following are the specialised farm finance packages offered by the Bank of New Zealand which are packaged under the Farm First Brand:

Farm First Mortgage:

- | | |
|-----------------|--|
| Uses | ● Purchase of land, stock, or plant, refinancing of existing debt and other capital expenditure. |
| Amount | ● Up to two thirds of the property valuation with no minimum. |
| Security | ● Mortgage over farm property (prefer 1st mortgage) up to 66.6% of the market value of the farm property. |
| Term | ● Mortgage secured - max. 15 years while repayments can be scheduled up to 20 years.
Stock loans - max. 5 year term while repayments can be scheduled up to 10 years. |
| Repayments | ● Flat loan - interest only over a maximum of 3 years.
Table - monthly or quarterly.
Non-Table - monthly or quarterly. |
| Interest Rate | ● Depends on security offered and individual circumstances. |
| Fee | ● An establishment fee of up to 1% may apply. |
| Early Repayment | ● No penalty for variable rate loans. Penalty may apply for fixed or Capped term loans. |

Seasonal Finance:

Rates depend on type of security offered with best rates when forming part of a Farm First package.

- | | |
|-----------------|---|
| Amount | ● By arrangement |
| Term | ● As per seasonal requirements, normally reviewed annually. |
| Interest Rate | ● Depends on security and individual circumstances. |
| Security | ● Farm property and/or stock. |
| Credit interest | ● Where the total business with the Bank is greater than \$50,000 this account earns credit interest. |
| Access | ● Cheque, telephone, card. |

Interest Rate Reviews:

Phone 0800 240000 for latest rural interest rates.

- | | |
|-------------|--|
| Fixed Rate | ● Fixed interest rates for periods of six months to five years. Fixed rate loans are repaid on a table (amortising) basis. |
| Capped Rate | ● The Bank guarantees that the interest rate will not rise above a pre-determined level, but the customer receives the benefit of falling rates. |

Farm First Revolving Credit:

- | | |
|------------|--|
| Uses | ● Any farm business related expenditure. |
| Amount | ● Minimum \$20,000, maximum by arrangement (up to 50% of property valuation). |
| Security | ● First mortgage over farm property. |
| Term | ● As per requirements, normally reviewed annually. |
| Repayments | ● Not fixed, at borrowers option. Account to operate within approved credit limit. |

- Interest Rate ● Refer to the Bank of New Zealand.
- Credit Interest ● Calculated on the daily balance of the account
- Fees ● Usual cheque account fees, no service commitment fees.
- Access ● Cheque, Card, Phone

Bank Charges and Fees:

Cheque Accounts:

Option 1:

- Base Fee ● Cheque Account \$2.25 per month (\$27.00/year).
- Activity Fee ● 25 cents per transaction (debit or credit) charged monthly.

Note: These two fees combine to give a bank fee.

- Option 2: ● \$10.00 per month with the first forty transactions free each month, \$0.35 per transaction thereafter.

Overdrafts/Seasonal Finance:

- Application Fee ● 1% of the overdraft limit with a minimum of \$50.00.
- Service Commitment ● 1.44% p.a. charged at a rate of 0.12% per month, with a minimum charge of \$3.00 per month. Where total business with the Bank is greater than \$50,000, this charge is rebated in full.

Farm First Call Accounts:

Money market linked interest rates with funds on call with cheque access.

Financial Data Required:

Minimum requirements generally are:

- Past three years balance sheet and accounts.
- Cash flow forecast and status quo budget.
- Personal statement of assets and liabilities.

Other considerations:

- Knowledge/experience in farming; character and capacity; age.
- Past borrowing record.
- Repayment capacity (debt servicing normally not exceeding 25% of gross farm income).

The National Bank (NZ) Ltd:

The National Bank offers a full range of rural financial services through one main point of contact - over 200 specialised Rural Managers, who are assigned to each rural client.

Term Loans

- 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.

- Terms
 - Floating rate loans - up to 25 years (up to 5 years for interest only loans)
 - Fixed rate loans - up to 5 years
- Repayment
 - Table - repayments of interest and principal in equal options monthly instalments.
 - Interest only - repayments of interest only in equal monthly instalments.

Seasonal Finance - FreePlan

- Uses
 - FreePlan is a working account designed to bring together all farm finance requirements - term, seasonal, and savings (or any combination of these requirements) into one account.
- Access
 - Cashpoint card - for use in money machines and EFTPOS facilities
 - Cheque Books - various options
 - Freephone - for daily banking requirements with automated touchtone option
 - Freepost - for depositing cheques and sending other correspondence
 - DirectLink - PC based banking from the farm.
- Payment
 - Electronic payment services such as automatic payments, services direct debits, and direct credits are also available with FreePlan.
- Credit/ Interest
 - Credit balances earn competitive interest, paid monthly.

General Information

- Fees
 - Establishment and investigation fees up to 1% of the value of the loan may be charged.
 - With FreePlan, a fixed monthly fee of \$10 is charged to cover all standard transactions.
 - For FreePlan accounts that are seasonal only, an overdraft management fee of 0.083% per month (1% pa) may be charged.
- Interest
 - Rates are available from any Rural Manager.
- Information
 - Budget and cashflow forecast showing ability to service required the debt
 - Copies of financial accounts for last three years
 - Statement of financial position

Primary Industry Bank of Australia Ltd.:

- General Information
 - Interest only loans, available for property purchase, refinance, on or off farm investment
Preferred minimum loan = \$150,000 for 15 years and can be renewed.
- Security
 - Via land mortgage, up to 55% of valuation.
- A negotiable establishment fee is payable on acceptance.
- Interest payment

- Options
 - monthly
 - quarterly in arrears
 - Working capital can be incorporated within the loan facility at the same interest rates as for long term finance.
- Principal reductions
 - These can be temporary or permanent and are possible with no penalties.
- Interest rates to borrowers (as at 21/12/95)
 - interest paid per annum-variable rate 8.6%
 - fixed interest options available 90 day, 180 day, 1,2,3,4 and 5 years.

A.N.Z. Bank:

Farm Finance Loan:

A term lending facility, of up to 25 years, secured by first mortgage over land and buildings.

- Amount
 - Up to 60% of FMV of Land and Buildings.
- Interest Rate
 - 11.1%, charged monthly (can be capped for 2 years)
- Approval Fees
 - 1% - min \$200 to a max of \$1000

Farm Equity Credit Line:

A revolving credit facility with full transactional facilities, secured by first mortgage over land and buildings.

- Interest Rate
 - 11.1% based on a daily balance, charged monthly.
- Approval Fees
 - 1% - min \$200 to a max of \$1000
- Bank Charges
 - Line of credit fee 0.35% per quarter
 - Account administration fee \$2/month
 - Transaction fee - \$0.25/trans (1st five free)

Seasonal Finance:

An overdraft facility for when mortgage security is not held.

- Interest Rate
 - Indicator lending rate, plus a margin
- Approval Fees
 - Minimum \$50 to a maximum \$500

- Bank Charges
 - Line of credit fee 0.12% per month
 - Account administration fee \$2/month
 - Transaction Fee \$0.25/trans (1st five free)

Interest Saver Facility:

Facility to transfer credit funds from Equity Credit Line, or Seasonal Overdraft, into the Farm Finance Loan, and then redraw them as required at a later date.

Fixed Rate Loans:

Fixed rates available for 1 to 5 years

Sharemilker/Sharefarmer Loan:

Term lending facility, secured over livestock and plant, for terms up to 7 years.

- Amount ● up to 50% of FMV of Stock
- Interest Rate ● 11.6%, charged monthly
- Approval Fees ● 1%, minimum \$200 to a maximum \$1000

Other Services Available:

ANZ Direct - Computer banking from home

Phone Direct - Telephone banking, including bill payment facilities.

ANZ Cover Farm Policy - Full farm and domestic insurance

ANZ Investment Advisers

Note: The rates and fees shown above are indicative only, and each proposal is looked at on an individual basis and terms and conditions may vary.

Westpac Banking Corporation:

Westpac Banking Corporation delivers a full range of financial services to the rural sector through a network of specialist Agribusiness Managers and rural service branches.

Note: 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 is payable at 0.1% per month, calculated on the overdraft facility limit. An Establishment charge of up to 1.0% may apply.
- Facility accessed by cheque book (or other options as arranged).

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 2 years interest only; or 5 years against livestock security, with up to 12 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.
- 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.

Trust Bank New Zealand Ltd

The Farm lending policy varies with the nine regional Trust Bank members, but the following summarises *Trust Bank Canterbury's* policy:

Term Loans:

- | | |
|-----------|---|
| Uses | ● Long to medium term farm finance for the purchase of land or for diversification, intensification, development or expansion of an existing operation. |
| Security | ● A registered first mortgage over the farm property is generally required. Livestock security may also be required. |
| Interest | ● Floating, fixed and capped rates available. For up to date rates contact the local Trust Bank branch or Rural Manager. |
| Repayment | ● Reducing, table, deferred principal and interest only options available. Payments can be set for terms of up to 15 years. |
| Fees | ● An establishment fee of 1% may be charged. |

Seasonal Finance:

- | | |
|--------------------|---|
| Uses | ● Working capital for short term cash requirements. |
| Access | ● Extensive branch network. Telebank facility for transfers between accounts. Desk Link, banking on the farm via a PC. Cheque. |
| Payment Services | ● Bill payment options via Telebank. |
| Overdraft Facility | ● Direct debits, direct credit, automatic payments and cheque options. |
| | ● Option of a set monthly management fee (based on banking services utilised) <u>or</u> a per transaction charging system with a \$2 monthly base fee. Monthly management fees can be set to include an overdraft service fee to simplify your bank statement and budgeting process. An overdraft service fee of up to 1.8% pa may also be charged. (Negotiable) Interest is paid on credit balances. |

Revolving Credit Facility:

A facility which combines seasonal and some or all of the farmer's term loan requirements. Monthly management fees are set based on banking services utilised, which could include Telebank. Flexi Service charge of 0.75% pa may also be charged. (The

Flexi Service charge may also be incorporated into the monthly management fee if required.)

A Trust Bank rural specialist is available to provide assistance on the banking options most suited to any situation and to give up to date information on the costs of finance.

Requirements for Lending:

In order for Trust Bank to make a decision on any request for Rural banking services the customer needs to provide:

- Budget and monthly cashflow forecast evidencing ability to service debt.
- Copy of the last 3 years statement of accounts.
- Copy of rates demand
- Statement of financial position, including off farm assets and liabilities.
- Copy of Land Title and Sale and purchase agreement.

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 mainly to clients but can be available to others if set conditions are met.

Pyne Gould Guinness Trust Ltd.:

Term - 3 years, perpetually renewable as long as viability, security and funding allows.

Interest Rates - 11.5% for rural property, 10.5% for residential property and 11.5% for commercial property. These are floating rates reviewable monthly.

Security - 1st Mortgages over "real" property only.

Application fees payable - maximum 1% of principal borrowed but will negotiate.

Wrightson Farmers Finance Ltd.:

Term Loans:

Uses - land purchase, debt restructuring, purchasing of livestock, plant and machinery and vehicles and agricultural diversification.

Term - 5 years reviewable to maximum 15 years.

Security - Land, livestock or plant.

Interest Rates - competitive with flexible repayment terms to suit particular needs.

Seasonal/Current Overdraft:

Uses - To fund farmers' ongoing farm expenditure throughout the year, as an advance on income.

Term - Up to 12 months, thereafter reviewed and renewed.

Security - Instrument over livestock, crops or plant, or a mortgage over land.

No current account bank transaction or overdraft fees etc - the interest rate is the only cost of funds.

Credit interest is paid on current account daily, when in credit.

Funding determined by personal, management and viability factors.

Flexi-Credit Farm Facility:

Uses - A farm credit facility in which all farm financial requirements (term and seasonal) are included in one single account.

Amount - Minimum facility of \$150,000

Interest rate - the prime rate for term loans, plus a premium of 0.5%

Security - First mortgage on land and/or security over livestock.

Direct access to flexi-credit account from cheque book.

Client Cash Flow Management System:

A monthly cash flow update and summary report, generated from client payments and receipts.

Financial Data Required:

Current balance sheet and accounts.

Cash flow forecast and budget.

Personal statement of assets and liabilities.

Investment Facilities:

A comprehensive investment facility exists, tailored for the Rural Sector. Provision for Call, Term and Debenture Stock exists, with flexibility and interest is calculated daily and credited on a monthly or quarterly compound.

Trust Companies

As an example, *Guardian Trust* offers both floating and fixed rate mortgage finance (interest only or including principle repayments) on amounts from \$50,000 (minimum) to \$5 million (maximum). As at 15 February 1996, the floating rate was 10.25% and fixed rate was 9.25%. The term of the loan varies according to the type of loan sought but ranges from a 1 year minimum to a 20 year maximum.



MORTGAGE LOANS

Available for:

- BUYING A FARM OR OTHER PROPERTY
- REFINANCING EXISTING LOANS FOR OTHER ASSET PURCHASES
- REFINANCING STOCK COMPANY TERM LOANS TO ALLOW FOR GREATER FLEXIBILITY WITH YOUR SEASONAL REQUIREMENTS

Currently **9.5% P.A.**

(Rate as at 15/2/96 - Rates will necessarily vary according to prevailing market conditions at the time of the Loan)

Consult our Experts:

Jonathan Cron - Trust Manager
Grant Brenton - Regional Manager

Phone [03]379-0644

NZ1 House, 96 Hereford Street
PO Box 9, Christchurch

- Securing the Future for Generations -

Solicitors

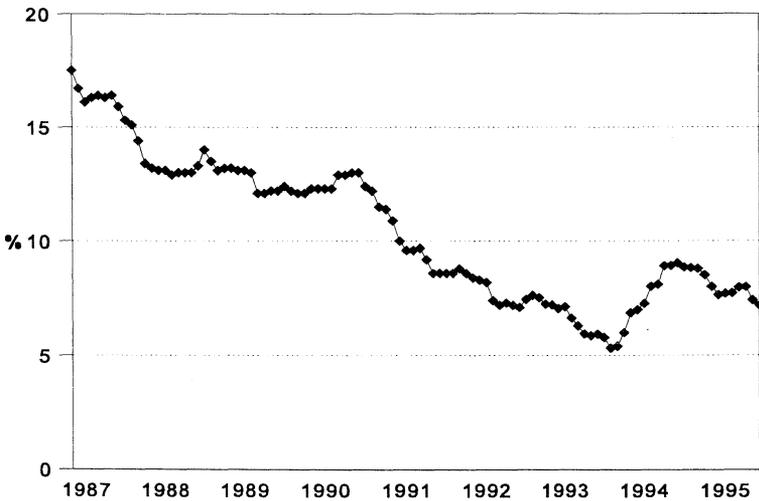
Solicitors generally provide short term finance (2-3 years) but shorter or longer terms are sometimes available. Flat mortgages are the most common, but provisions for lump sum principal reductions may be included. Interest rates vary, but are currently between 10% and 12% on first mortgage (including the solicitors collection costs of around 1%). Rates are normally not reviewable with loans of 2 years or less. The maximum amount which can be borrowed is usually limited to 66% of valuation.

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, Dairy Companies (usually clients only) and Life Insurance Companies. Interest rates and terms are usually negotiated for individual situations.

2.17.3 Interest Rates - 5 Year Government Stock

Editor's Note: As an approximate guide, interest rates on first mortgage (for farm purchase) in recent years have generally been about 2½ percent higher than the 5 year Government Stock Rate (see graph):



Source: Reserve Bank Financial Statistics

2.17.4 Cost of Table Mortgages - Monthly/Quarterly/Annual Payments

(i) Monthly Payments

(Monthly Payments on Amortised Loans).

The monthly payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Years (Mortgage Term)

	5	10	15	20	25
Interest	\$ p.m.				
Rate					
6%	19.33	11.10	8.44	7.16	6.44
6.5%	19.57	11.35	8.71	7.46	6.75
7%	19.80	11.61	8.99	7.75	7.07
7.5%	20.04	11.87	9.27	8.06	7.39
8%	20.28	12.13	9.56	8.36	7.72
8.5%	20.52	12.40	9.85	8.68	8.05
9%	20.76	12.67	10.14	9.00	8.39
9.5%	21.00	12.94	10.44	9.32	8.74
10%	21.25	13.22	10.75	9.65	9.09
10.5%	21.49	13.49	11.05	9.98	9.44
11%	21.75	13.77	11.37	10.32	9.80
11.5%	22.00	14.06	11.68	10.66	10.16
12%	22.24	14.35	12.00	11.01	10.53
12.5%	22.50	14.64	12.33	11.36	10.90
13%	22.75	14.93	12.65	11.72	11.28
13.5%	23.01	15.23	12.98	12.07	11.66
14%	23.27	15.53	13.32	12.44	12.04
14.5%	23.53	15.83	13.66	12.80	12.42
15%	23.79	16.13	14.00	13.17	12.81
15.5%	24.05	16.44	14.34	13.54	13.20
16%	24.32	16.75	14.69	13.91	13.59
16.5%	24.58	17.06	15.04	14.28	13.98
17%	24.85	17.38	15.39	14.67	14.38
17.5%	25.12	17.70	15.75	15.05	14.78
18%	25.39	18.02	16.10	15.43	15.17
18.5%	25.67	18.34	16.47	15.82	15.57
19%	25.94	18.67	16.83	16.21	15.98

(ii) Quarterly Payments

(Quarterly Payments on Amortised Loans).

The quarterly payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Years (mortgage Term)

	5	10	15	20	25
Interest Rate	\$ p.q.	\$ p.q.	\$ p.q.	\$ p.q.	\$ p.q.
6%	58.25	33.43	25.40	21.55	19.38
6.5%	58.97	34.20	26.22	22.43	20.30
7%	59.70	34.98	27.06	23.33	21.25
7.5%	60.43	35.76	27.91	24.24	22.22
8%	61.16	36.56	28.77	25.17	23.21
8.5%	61.90	37.37	29.65	26.11	24.21
9%	62.65	38.18	30.54	27.07	25.23
9.5%	63.40	39.01	31.44	28.04	26.27
10%	64.15	39.84	32.36	29.03	27.32
10.5%	64.91	40.68	33.28	30.03	28.38
11%	65.68	41.54	34.23	31.05	29.46
11.5%	66.45	42.40	35.18	32.08	30.55
12%	67.22	43.27	36.14	33.12	31.65
12.5%	68.00	44.15	37.11	34.17	32.76
13%	68.78	45.03	38.09	35.23	33.89
13.5%	69.57	45.93	39.09	36.31	35.02
14%	70.37	46.83	40.09	37.39	36.16
14.5%	71.16	47.74	41.11	38.48	37.32
15%	71.97	48.66	42.13	39.59	38.47
15.5%	72.77	49.59	43.16	40.70	39.64
16%	73.59	50.53	44.21	41.82	40.81
16.5%	74.40	51.47	45.26	42.95	41.99
17%	75.22	52.42	46.32	44.08	43.18
17.5%	76.05	53.38	47.38	45.23	44.37
18%	76.88	54.35	48.46	46.38	45.56
18.5	77.72	55.32	49.54	47.53	46.76
19%	78.56	56.30	50.63	48.69	47.97

(iii) Annual Payments

(Annual Payments on Amortised Loans).

The annual payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Years (Mortgage Term)

	5	10	15	20	25
Interest Rate	\$ p.a.				
6%	237.40	135.87	102.96	87.18	78.23
6.5%	240.64	139.11	106.36	90.76	81.99
7%	243.89	142.38	109.79	94.39	85.81
7.5%	247.17	145.69	113.29	98.10	89.72
8%	250.46	149.03	116.83	101.85	93.68
8.5%	253.77	152.41	120.43	105.68	97.72
9%	257.09	155.82	124.06	109.55	101.81
9.5%	260.44	159.27	127.75	113.48	105.96
10%	263.80	162.75	131.47	117.46	110.17
10.5%	267.18	166.26	135.25	121.49	114.43
11%	270.57	169.80	139.07	125.58	118.74
11.5%	273.98	173.38	142.92	129.70	123.10
12%	277.41	176.98	146.82	133.88	127.50
12.5%	280.85	180.62	150.76	138.10	131.94
13%	284.31	184.29	154.74	142.35	136.43
13.5%	287.79	187.99	157.76	146.65	140.95
14%	291.28	191.71	162.81	150.99	145.50
14.5%	294.79	195.47	166.90	155.36	150.08
15%	298.32	199.25	171.02	159.76	154.70
15.5%	301.85	203.06	175.17	164.20	159.34
16%	305.41	206.90	179.36	168.67	164.01
16.5%	308.98	210.77	183.57	173.16	168.71
17%	312.56	214.66	187.82	177.69	173.42
17.5%	316.16	218.57	192.10	182.24	178.16
18%	319.78	222.51	196.40	186.82	182.92
18.5%	323.41	226.48	200.73	191.42	187.69
19%	327.05	230.47	205.09	196.05	192.49

2.18 WATER SUPPLY, IRRIGATION AND DRAINAGE.

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 for the development of a new water supply on an 120 hectare farm being converted from sheep to dairy farming. Refer to *Section 2.18.8* for supply charges.

2.18.2 Water Troughs

Concrete

McKendrys:

Oblong Troughs - Sheep, Cattle, Horses.

40 type (170 litres) 1.83mm long x 480mm wide x 355mm deep	\$97.50 to \$127
60 type (250 litres) 1.83mm long x 685mm wide x 310mm deep	\$104.50 to \$134.50
70 type (290 litres) 2.13mm long x 535mm wide x 420mm deep	\$125 to \$154.50
120 type (545 litres) 2.743mm long x 635mm wide x 457mm deep	\$176.50 to \$207

Round Troughs - Cattle, Sheep

40 type (160 litres) 965 diam x 330mm deep	\$96
100 type (450 litres) 1.37mm diam x 380mm deep	\$129.50
130 type (585 litres) 1.480mm diam x 434mm deep	\$147
200 type (900 litres) 1.93mm diam x 380mm deep	\$210

Round Troughs - Dairy Cattle Types

225 type (1020 litres) 1.63mm diam x 650mm deep	\$226.50
300 type (1360 litres) 1.910mm diam x 650mm deep	\$271.50

Deer Troughs

20 type (90 litres) 815mm diam x 370mm high	\$72.00 to \$98.00
40 type (180 litres) 1.120mm diam x 380mm high	\$100.00 to \$132.50

Pig Troughs

915mm long x 405mm wide x 230mm deep	\$50.50
1.37mm long x 405mm wide x 230mm deep	\$57.50
1.83mm long x 405mm wide x 230mm deep	\$66.00
915mm long - heavy duty	\$57.50

Humes:

	<u>Weight</u>	<u>Price</u>
Rectangular troughs		
	70kg/140kg	\$38.95/\$74.28
RB200/300/400	280kg/366kg/525kg	\$127.50/\$145.24/\$185.15
Round troughs		
CB100/150/500	235kg/278kg/470kg	\$104.21/\$123.07/\$169.63
CB750/1000/1500	680kg/854kg/1034kg	\$239.47/\$266.07/\$318.19

Fibreglass

Ribtec: (price includes delivery) (Round troughs)

Long Troughs (Narrow design)

750 litre -no legs/legs

\$445/\$580

375 litres -no legs/leg

\$270/\$380

2.5m - Lid with hinges

\$220

- Backboard for maize silage 800m high

\$265

Long Troughs (Galvanised Frame)

700 litre -no frame/low frame/high frame

\$315/\$620/\$680

1400 litre-no frame/low frame/high frame

\$480/\$840/\$870

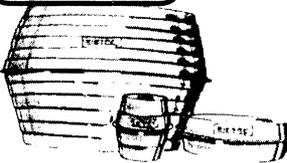
With frame, bearing wheels and coupling for motorbike

\$1360

RIBTEC
RIBTEC

FREE DELIVERY ANYWHERE IN THE SOUTH ISLAND

PLUS MANY MORE ITEMS



ABOVE GROUND WATER TANKS



SPRAY TANKS



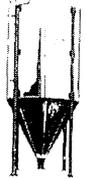
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2.18.3 Tanks

Fibreglass

Ribtec: (price includes delivery)

<u>Litres</u>	<u>Price</u>	<u>Litres</u>	<u>Price</u>
330	\$310	4600 upright	\$1260
700	\$380	5300	\$1490
1250	\$515	7700	\$1700
1400	\$650	9600	\$1815
2080	\$820	10600	\$1870
2300	\$970	15800	\$2100
3370 squat	\$1030	23780	\$2450
4600 squat	\$1260	3636 upright	\$1180

Concrete

Humes:

11250 litres, 2500mm diameter, 2800mm height \$1470

Cement Products Ltd (Palmerston North):

<u>Litres</u>	<u>(gal.)</u>	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>Price</u>
900	(200)	1.20	1.15	\$599.38
1800	(400)	1.45	1.22	\$854.88
2700	(600)	1.75	1.22	\$973.00
3600	(800)	1.90	1.22	\$1067.50
4500	(1000)	1.90	1.83	\$1137.50
9100	(2000)	2.74	1.83	\$1524.25
13600	(3000)	2.74	2.44	\$1645.00
18200	(4000)	3.42	2.28	\$1837.50
22800	(5000)	3.42	2.74	\$1907.50
Flat Top Tanks				\$258.13

Freight costs are additional to the tank prices and are charged at \$3.94 per kilometre for all tank sizes.

McKendrys: (Christchurch)

<u>Volume (litres)</u>	<u>Height</u>	<u>Price</u>
1829	1.37m	\$625
2955	1.3m	\$885.60
4546	1.9m	\$952.60
11365	2.4m	\$1415.70
13638	2.47m	\$1627
22730	2.77m	\$2183

Note: Prices quoted are ex yard. Prices include 2 x 25mm brass outlet and 1 x 25 mm brass inlet sockets.

Timber Tanks and Reservoirs

McAlpines: (Price includes installation)

<u>Capacity</u>		<u>0.5 mm PVC lined</u>	<u>Butynol lined</u>
<u>Litres</u>	<u>(gal.)</u>		
11219	(2500)	\$4427	\$4533
23693	(5000)	\$5578	\$5831
34404	(7500)	\$6267	\$6755
46419	(10000)	\$7138	\$7618
68462	(15000)	\$8347	\$9271
94600	(20000)	\$9902	\$11218

Reservoirs

McAlpines: (Price includes installation)

<u>Capacity</u>	<u>0.5 mm PVC lined</u>	<u>Butynol lined</u>
<u>Litres (gal.)</u>		
150000 (33000)	\$14996	-
250000 (55000)	\$30933	-
363000 (80000)	\$37076	-
454000 (100000)	\$47582	-

Note: Price includes total construction cost, but does not include freight, travelling time, fill, or accommodation (where necessary). Pipe, and crane hire for lifting the tops onto reservoirs is not included in the price.

Galvanised Iron Tanks

C. & F. Industries:

1700 litres	\$548
2700 litres	\$700
3600 litres	\$834
1200 high Tank Stands	\$533
Each additional metre height	\$47

2.18.4 Pumps and Windmills

Bertolini (Diaphragm Pumps)

Medium to High Pressure

<u>Model</u>	<u>Max. Continuous Working Pressure</u>	<u>Litres per Minute</u>	<u>Price</u>
25 S	18 Bar (270 psi)	25	\$595
PA 330	40 Bar (600 psi)	30	\$650
PA 408	40 Bar (600 psi)	40	\$745
PA 530	40 Bar (600 psi)	55	\$850
PA 730	50 Bar (750 psi)	70	\$1050
PA 908	50 Bar (750 psi)	90	\$1550
PA 144	50 Bar (750 psi)	150	\$1940
Low Pressure	15 Bar (220 psi)	65 to 250	\$750 to \$2600
Motorised			
(electric/petrol)	15 Bar (220 psi)	15	\$830
(electrical)	20 Bar (300 psi)	20	\$960
4 Stroke	20 Bar (300 psi)	25	\$1725
	40 Bar (600 psi)	40	\$2350
Ceramic Plunger	50 Bar (700 psi)	30	\$1000
	70 Bar (1000 psi)	60	\$2018
	70 Bar (1000 psi)	70	\$2039
	70 Bar (1000 psi)	90	\$2117
	70 Bar (1000 psi)	145	\$3139
	50 Bar (700 psi)	245	\$3683

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	750W	20 to 40 psi	AP 50 tank	\$830
JJ600	1100W	20 to 50 psi	AP 50 tank	\$1140
OJ700	1500W	20 to 70 psi	AP 80 tank	\$1710
OJ800	2400W	30 to 110 psi	AP 80 x 2 tanks	\$2440

Deep Well - add the following to the above pumps:

4/5/6" deep well injectors - \$180/\$210/\$280

General Purpose Water Transfer

Hi Flow Self Priming Moulded Centrifugal Pumps

Models	415	750W	31psi	240v	\$370
	112	1100W	37psi	240/415v	\$600/\$630
	143	2400W	60psi	240/415v	\$1200/\$890

Dairy Wash Down

Hi flow Self Priming Cast Iron Centrifugal Pumps

Model	182	1500W	50psi	240/415v	\$970/\$995
	183	2400W	59psi	240/415v	\$1580/\$1100
	184	3800W	71psi	415v	\$1450
	185	6000W	77psi	415v	\$2070

Dairy Shed In-Place Cleaning

Cast Iron Centrifugal Pumps

Model	Davies K1/3250W	240/415v	\$570
	Davies K3/4680W	240/415v	\$640
	Davies K1/4930W	240/415v	\$776

Farm Water Supply

Model	Davies B1 Piston Pump	(300 gph)	\$995
	Davies C1 Piston Pump	(500 gph)	\$1990

Hydroponics

Moulded Centrifugal Pumps

Model	413	400W	21 psi	240v	\$270
	660	550W	21 psi	240v	\$495
	661	750W	25 psi	240v	\$575

Irrigation

Cast Iron Centrifugal Pumps (Bare Shaft)

Model	DB 50/2	(15000gph @ 130 psi-2900rpm)	\$1425
	DB 65/26	(24000gph @ 130 psi-2900rpm)	\$1750
	DB 100/26	(60000gph @130 psi-2900rpm)	\$2100

Cast Iron Centrifugal Pumps (Motorized Electric)

Model	DBC 40/20	11 kW	(6000gph @ 80 psi)		\$3270
	DBC 50/20	15 kW	(13000gph @ 80 psi)		\$3660
	DBC 65/20	22 kW	(24000gph @ 70 psi)		\$5030

Cast Iron Centrifugal Pump (Motorized Diesel Engine)

Model	380	68 psi	max. flow	5900gph	4.5HP	\$4150
	384	78 psi	max. flow	10100gph	6HP	\$5150

McNeill Pumping & Irrigation:

Grundfos Pumps:

High Pressure Multi Stage

	<u>Pressure</u>	<u>Flow, litres</u> <u>per minute</u>	<u>Price</u>
CR4-60	60 metre (85psi)	120	\$1174
CR8-60	60 metre (85psi)	180	\$2090
CR16-50	75 metre (110psi)	330	\$3216

Farm Pressure Systems

JP 6 PT 75LT	55 metre (80psi)	50	\$825
CR4-40 PT75	40 metre (60psi)	120	\$1766
CR8-60 PT75	60 metre (85psi)	180	\$2841

General Purpose Transfer Pump

JQ2	40 metre	40	\$699
JQ4	45 metre (65psi)	40	\$828
CH2-40	36 metre (50psi)	18	\$499
CH4-40	30 metre (40psi)	36	\$655
CH8-60	45 metre (65psi)	65	\$1258

Dairy Wash Down Pumps Close Coupled Motors

Dairy blaster 3.0	30 metre (40psi)	151	\$1110
Dairy blaster 5.5	30 metre (40psi)	326	\$1565
Dairy blaster 7.5	45 metre (64psi)	280	\$1950

Dairy Shed in place cleaning

CHI 2.40	35 metre (50psi)	24	\$669
CHI 4.40	35 metre (50psi)	60	\$999
CHI 8.20	30 metre (40psi)	120	\$1200
CHI 12.20	40 metre (60psi)	150	\$1530

Farm Water Supply Close Coupled Pumps

NM 65-40	14 metre (20psi)	120	\$1359
NP 80-65	35 metre (50psi)	360	\$2004
LM 50-200	15 metre (22psi)	60	\$1539
LP 80-160	35 metre (50psi)	100	\$2926

Bore Hole Submersible Pumps Hi Flo Hi Pressure

	<u>Pressure</u>	<u>Flow, litres per minute</u>	<u>Price</u>
SP 5A-17	100 metre (140psi)	30	\$2100
SP 8A-15	80 metre (110psi)	45	\$2720
SP 27-7	60 metre (85psi)	300	\$5353
SP 45-9	100 metre (140psi)	480	\$7114

Effluent Submersible Sump Pumps (stainless steel)

KP 150 A1 (with float switch)	7 metre (10psi)	150	\$365
KP 250 A1 (with float switch)	5 metre (7psi)	180	\$395
AP250 A1 (with float switch)	13 metre (20psi)	300	\$580
AP 12-40.06 A1	9 metre (14psi)	270	\$750

Irrigation Pumps, Cast Iron

Major flow CCB 3 x 4"	50 metre (70psi)	900	\$1697
CCB 4 x 4"	65 metre (100psi)	1800	\$1740
VRB 5 x 5"	75 metre (110psi)	3000	\$2460

Effluent Pumps

Nu-Medic:

Effluent Pumps complete with float and arms;

5.5kW (7.5HP)	\$3192
7.5kW (10HP)	\$3243
11kW (15HP)	\$4000
15kW (20HP)	\$4238

Tulloch:

Reime SP10 manure separator	\$24,590
Reime L-04-100 submersible manure pump	\$11,510

Windmills

Jolly Windmill Company:

Windmill and pole		Pump, footvalve, and filter	
<u>Diameter (m)</u>	<u>Price</u>	<u>Bore (mm)</u>	<u>Price</u>
1.8	\$1500	40 Household	\$490
2	\$2450	40 High Pressure	\$650
2.4	\$3900	50 High Pressure	\$750
2.6	\$5200	65 High Pressure	\$950
3.0	\$6200		

Automatic Reservoir Shut-off Valve

25mm/32mm	\$95/\$220
-----------	------------

Installation Costs:

Minimum installation charge if customer assists	\$250
Minimum installation charge if done solely by company	\$350

2.18.5 Well Drilling

McMillan Water Wells Ltd (Canterbury):

Price for Drilling Wells

	<u>Price</u> <u>per metre</u>
4 inch (100mm)	\$150
5 inch (125mm)	\$170
6 inch (150mm)	\$190
8 inch (200mm)	\$252
10 inch (250mm)	\$300
12 inch (300mm)	\$350

Developing and test pumping is charged at \$100 per hour.

Note: All prices include drilling and steel pipe. Stainless steel wedge wire screens are normally fitted and range in price from \$300 per metre for 100 mm - \$720 per metre for 300 mm.

2.18.6 Well Liners

Humes:

Well liners are priced at:

<u>Diameter</u>	<u>Price per metre</u>
600 mm	\$72.50
750 mm	\$116
900 mm	\$154
1050 mm	\$232

2.18.7 Pipes and Fittings

MICO Wakefield S.I. Ltd:

Low Density Polythene Pipe (For low pressure water systems) -

<u>Working Pressure</u>	<u>Size(mm)</u>	<u>Price Per 100 metre coil</u>
900 kpa (130 psi)	15	\$76.18
800 kpa (116 psi)	20	\$143.87
650 kpa (90 psi)	25	\$179.83
500 kpa (75 psi)	32	\$224.27
450 kpa (65 psi)	40	\$270.82
300 kpa (50 psi)	50	\$357.56

Medium Density Polythene Pipe (Price per 100 metre coil) -
Class C

<u>Size(mm)</u>	<u>900kpa (130 psi)</u>
20	\$130
25	\$166
32	\$245
40	\$403
50	\$588
63	\$854

New World Products:

Polythene Pipes

15mm	\$38.60 per 100m
20mm	\$72.90 per 100m
25mm	\$91.10 per 100m
32mm	\$113.65 per 100m
40mm	\$137.20 per 100m
50mm	\$181.25 per 100mm

Hansen Products (N.Z.) Limited:

Polythene Pipe Fittings:

Straight Couplings (HS)	15 to 50mm	\$4.97 to \$35.88
Male Couplings (HMS)	15 to 50mm	\$3.32 to \$23.40
Female Couplings (HFS)	15 to 50mm	\$4.19 to \$31
Reducing Straight Couplings (HRS)	20 x 15mm to 50 x 40mm	\$5.69 to \$24
Reducing Male Couplings (HRMS)	20 x 15mm to 15 x 20mm	\$4.84 to \$5.28
Tees (HT)	15mm to 50mm	\$8.42 to \$45.65
Bracket Elbows (HBE)	15mm to 20mm	\$9.20 to \$12.25
Reducing Tees (HRT)	20 x 15mm to 15 x 20mm	\$10 to \$45.65
Reducing Male Bends (HRMB)	15 x 20mm to 25 x 20mm	\$11.55 to \$13.73
Reducing Female Bends (HRFB)	15 x 20mm to 50 x 40mm	\$10.46 to \$25.66

Steel & Tube NZ Ltd.:

Galvanised Wrought Steel Pipe Fittings:

Tee - 10mm, 20mm, 40mm	\$5.56/\$9.28/\$30.71
Bend - 10mm, 20mm, 40mm	\$4.24/\$6.56/\$19
Elbow - 10mm, 20mm, 40mm	\$5.01/\$8.30/\$24.64
Barrel and Piece - 10mm, 20mm, 40mm	\$3.10/\$3.70/\$6.38
Galvanised black malleable fitting	
Elbows - banded equal 10/20/40mm	\$1.42/\$1.90/\$5.69
- banded reducing 10/20/40mm	\$1.86/\$2.09/\$6.64
Tees - banded equal 10/20/40mm	\$1.96/\$2.59/\$7.58
- banded reducing 10/20/40mm	\$2.97/\$2.97/\$8.85
Plugs - 10/20/40mm	\$0.95/\$1.07/\$2.72
Ball Valves - full flow brass ball valve 10/20/40mm	\$6.14/\$9.94/\$32.14
- brass ball valve, T bar handle (male/female) 20mm	\$10.40

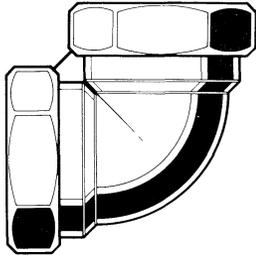
**NEW
PRODUCTS
FROM HANSEN**

HANSEN

THREADED FITTINGS

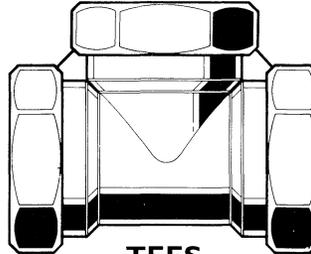


Quality
Endorsed
Company
ISO 9002



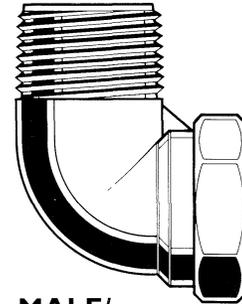
ELBOWS

Size mm: 15,20,25
32,40,50



TEES

Size mm: 15,20,25,32,40,50



**MALE/
FEMALE ELBOWS**

Size mm: 15,20,25

**MADE IN NEW ZEALAND FROM HIGH
QUALITY GLASS REINFORCED NYLON**

AVAILABLE FROM YOUR HANSEN STOCKIST

2.18.8 Stock Water Supply Charges

Selwyn District - Canterbury:

Stock Water and Irrigation Supplies:

Ellesmere	Per hectare or part thereof	\$4.35
	Minimum charge	Nil
Malvern	Per hectare or part thereof	\$5.00
	Minimum charge	\$52.00
Selwyn	Per hectare or part thereof	\$4.00
	Minimum charge	\$31.00

The Council maintains all head works and main races, while on farm cleaning of races is left to the individual farmers.

Taranaki:

Connection fee to Council reticulated water scheme \$1,000 to \$2,000 (includes cost of access pipe and water meter). Water supply levy is \$0.25 per cubic metre (includes servicing of water meter and pressure reducing valves).

2.18.9 Water and Discharge Rights

Canterbury Regional Council:

Scale of Charges for Administration, Monitoring and Supervision of Water and Discharge Rights

- (i) Applications for water permits, land use consents and minor discharge permits a minimum charge of \$262.50
- (ii) Applications for land use consents to construct or alter a bore has a minimum charge of \$87.50 per bore.

Compliance monitoring:

Monitoring of water permits - abstraction of groundwater.

- (a) Site inspections are carried out on an average and reasonable basis. Average hourly rate \$40 to \$50 plus mileage and any sampling costs. Farmers can expect one visit per year.
- (b) In times of low groundwater levels and/or low stream flows. The cost of monitoring stream flows, groundwater levels and advising consent holders of restrictions to abstraction rates is apportioned equally between the consent holders affected.

2.18.10 Irrigation Equipment - Pastoral and Arable

Rainer Irrigation Limited:

Travelling Irrigators

Briggs Model 200 Roto Rainer and Hose Trailer	\$30985
Briggs Model 250 Roto Rainer and Hose Trailer	\$36950
Briggs Model 250 Linear Rain Turbine Drive and Hose Trailer	\$41950
Briggs Model 125 Roto Rainer and Hose Trailer	\$27985
Briggs Model 125 Linear Rain Turbine Drive and Hose Trailer	\$32985
Briggs Model 100 Roto Rainer and Hose Trailer	\$19950

Briggs Model 25 Roto Rainer and Hose Trailer	\$14950
Briggs Model 25 Trailer	\$4200
Briggs Model 10 Roto Rainer Standard (Effluent Irrigator)	\$3200
Briggs Model 10 Hose Trailer	\$4200
Briggs Model 125, 200 or 250 Hose Trailer	\$6200
Briggs Model 100 Hose Trailer	\$4200

Hoses

Angus or Snaptile

65mm to 75mm	\$15.25 to \$23.75 per metre
89mm to 100mm	\$26.75 to \$35.25 per metre
114mm to 125mm	\$42.50 to \$45.90 per metre

Underground Mainline (PVC pipes)

Class B

(per metre)

80mm	\$6.25
100mm	\$8.50
125mm	\$10.71
150mm	\$13.08

Note: Hydrant outlets \$200 to \$300 each
 Entrenching and laying costs \$2.00 to \$3.50 per metre

B.R. Homersham Ltd:

Rainguns

K1	\$150.00
Hydra	\$200.00
Synkro	\$795.00
Mercury	\$740.00
Big River	\$975.00
Mariner	\$1095.00

B.R. Homersham Ltd:

Sprinklers

402 - 00	1/8"	\$23.30
403 - 02	3/16 x 3/32"	\$32.95
404 - 00	7/32 x 3/16"	\$67.00
434 - 00 Part Circle	3/16 x 1/8"	\$96.80
442 - 01 Part Circle	5/32"	\$38.75
443 - 01 Part Circle	5/32 x 3/32"	\$68.70

Irrigation and Pumping Services Ltd:

Southern Cross Irrigators

Irrigator complete with sprinklers, black hose (Angus),

SX 5	20 mm x 50 m hose and sprinkler	\$900
SX 20	38 mm x 67 m hose and sprinkler	\$2705

Irrigation and Pumping Services Ltd:

Southern Cross Irrigators

Irrigator complete with sprinklers, black hose (Angus),

SX 5	20 mm x 50 m hose and sprinkler	\$900
SX 20	38 mm x 67 m hose and sprinkler	\$2705
SX 150	63 mm x 200 m hose and sprinkler	\$11810
SX 250	75 mm x 200 m hose and gun	\$17156
SX 350C	88 mm x 200 m hose and gun	\$20210
SX 450B	100 mm x 200 m hose and gun	\$29114
SX 550A	115 mm x 200 m hose and gun	\$34208

Hoses

Angus Hose	44 mm to 75 mm (Black)	\$12.25 to \$24.32 per metre
	100 mm to 150 mm (Black)	\$37.57 to \$57.89 per metre

Sprinklers (each)

Naan 233/96	11 to 62 litres per min	\$32.95
5035/91	11 to 42 litres per min	\$18.80
254/96	18 to 124 litres per min	\$57.60

Pump Units Complete With Motor

Starline ISO Motorpumps

50 x 32 - 200	11kW 2P	7 litres per sec (92gpm)	@ 65m	\$3067
65 x 40 - 250	15kW 2P	9 litres per sec (120gpm)	@ 78m	\$3599
80 x 50 - 250	22kW 2P	20 litres per sec (264gpm)	@ 68m	\$4346
100 x 65 - 250	30kW 2P	28 litres per sec (370gpm)	@ 68m	\$5357
100 x 65 - 250	45kW 2P	35 litres per sec (460gpm)	@ 86m	\$6815
125 x 100 - 315	90kW 2P	60 litres per sec (790gpm)	@ 100m	\$13257

B.R. Homersham Ltd.

Irrigation Accessories

Aluminium pipe -	50mm x 9m	\$90.00
	80mm x 9m	\$135.00
	100mm x 9m	\$186.00
	125mm x 9m	\$288.00

Aluminium Couplings - Female Plain	50mm	\$53.00
	100mm	\$76.00
	150mm	\$165.00
- Male Plain	50mm	\$25.00
	100mm	\$49.00
	150mm	\$72.00

Rain Gauge

Roger Martyn:

Battery operated electronic rain gauge	\$103
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2.18.11 Irrigation Equipment - Horticultural

B.R. Homersham Ltd.

Plastic Sprinklers -

CR15 Cropwell Sprinkler \$15.00

Alister Bevin Products Ltd.

Driplines - Ro-Drip

<u>Product Description</u>	<u>Length</u>	<u>Price</u>
2300-4 8 ml, 100mm spacing	2286m	\$450
300-4 8 ml, 100 mm spacing	300m	\$100
300-8 8 ml, 200 mm spacing	300m	\$105
2300-8 8 ml, 200 mm spacing	2286m	\$420
1200-8 15 ml, 200 mm spacing	1220m	\$340
1200-12 15 ml, 300 mm spacing	1220m	\$340

Irrigation Controllers -

Orbit Watermaster - 4 to 6 station \$150 to \$180

Orbit control star - 4 to 8 station \$180 to \$280

Irritrol Dial Series - 5 to 36 stations \$640 to \$2390

Rain-O-Matic electronic rain gauge \$150

Mini-Click Rain Sensor \$75

Filters - *Amiad*

Plastic Filters

Filter - 20mm black with flushing valve \$49.00

Filter - 25mm with nylon screen and flushing valve \$105.00

Filter - 40mm with grooved disc element \$255.00

Super-2 - 50mm with moulded stainless steel screen \$340.00

Jumbo - 50mm with grooved disc element \$340.00

Plastic - 80mm threaded with grooved disc element \$950.00

Steel Filters

Filter - 50mm with moulded stainless steel screen \$750

Filter - 80mm with grooved disc element \$1150

Filter - 100mm with perforated screen \$2200

Filter - 150mm Super with fine stainless steel screen \$3050

2.18.12 Irrigation Water Supply Charges

Farm

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 1995/96 season for community irrigation schemes in the South Island are as follows:

Scheme Charges

Amuri Irrigation Co:

- Borderdyke \$28/ha/year
- Spray \$42/litres/second/year
- Up front cost to buy irrigation rights:
 - \$25.00 per "A" share (one "A" share is one hectare of developed land)
 - \$12.50 per "B" share (one "B" share is one hectare of yet to be developed land).

Ashburton-Lyndhurst Scheme \$12/ha/year

Mayfield-Hinds Scheme \$10.50/ha/year

Morven, Glenavy and Ikawai Districts:

- Borderdyke \$20/ha for 1st 610 mm plus 1.20/1000 m³ over 610 mm
- Spray \$12/ha

Lower Waitaki \$11.00 per ha spray irrigation
\$27.50 per ha for borderdyke irrigation (16 day rotation)

2.18.13 Irrigation Scheduling Service

Agriculture New Zealand:

Provides agricultural and horticultural properties with irrigation scheduling advice based on weekly soil moisture readings by using a Neutron Probe and Soil Moisture Tensiometers.

Canterbury: \$50/site/(depending on location) i.e dairy farm - 25 readings per season (\$625 per season) cropping farm - 10 readings per season (\$250 per season)

Nelson Region: \$1400 total cost (average per property). The number of sites monitored depends on the owner's requirements. This is influenced by the number of crops grown and the number of soil types.

2.18.14 Border Dyke Irrigation

Doug Hood Ltd:

Earthworks:

Earthworks only - \$1,200 per hectare or \$3,000 per hectare which includes the borders, headraces etc. This cost includes: All levelling, construction of levees, construction of supply and head races.

Structures:

Concrete Dams

Depends on flow rate of water and will vary depending on water flow but average \$255.00.

Sills

Standard sills cost on average \$85.00 each.

There are various other designs which would generally be more expensive.

Weirs

2.5m - \$485

Access Crossings

For a 6 metre crossing, cost including installation and pipes:

300mm diameter pipe	\$75.00/metre
750mm diameter pipe	\$250/metre

Head walls for a 6m crossing, pipe diameter 750mm:	\$220/each
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Bridge crossing	\$1630
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Batt-Latch

Roger Martyn:

Battery operated timer for spring gate border dyke irrigation flap release	\$250
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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 that typical flatland costs for intensive (20 to 25mm drainage coefficient) systems, including metal backfill range from \$1,800 to \$2,200 per hectare. Costs can range above these figures in situations which require pumped outfalls and/or large diameter (200mm and upward) mains. Typical rolling country costs for 12 to 18mm drainage coefficient systems \$1,200 to \$1,500 per hectare. Mole drainage is typically \$125 to \$150 per hectare and subsoiling is typically \$50 to \$60 per hectare.

Southland Brick & Pipe Ltd:

Southtile Field Tiles

<u>Diameter</u>	<u>Length</u>	<u>Per unit for 100</u>	<u>Per unit per 500</u>
75 mm	300 mm	\$0.80	\$0.67
125 mm	300 mm	\$1.26	\$1.05
190 mm	300 mm	\$2.59	\$2.1
100 mm	600 mm	\$1.97	\$1.64
150 mm	600 mm	\$3.98	\$3.32
225 mm	600 mm	\$8.40	\$7.00

Southtile Junctions

75 x 75mm to 225 x 125mm T junctions	\$12 to \$19
75 x 75mm to 225 x 125mm Y junctions	\$12 to \$19

Clarks Potteries:

Field tiles

<u>Diameter</u>	<u>Length</u>	<u>Price</u>
75mm	300mm	\$0.95
100mm	300mm	\$0.95
150mm	600mm	\$4.60
225mm	600mm	\$8.15
300mm	600mm	\$14.90

MICO Wakefield Ltd:

Farmtuff-UPVC culvert pipe

200mm x 5m	\$182
250mm x 5m	\$276
315mm x 5m	\$425
400mm x 5m	\$659
500mm x 5m	\$1041

Concrete Culvert Pipes

<i>McKendrys:</i>	150 to 375 mm x 900 mm	\$22 to \$38
	450 to 900 mm x 900 mm	\$44 to \$94.50

Mico Wakefield:

Farmtuff Culvert Pipe	200mm to 250mm x 5m	\$200 to \$303
	315mm to 400mm x 5m	\$466 to \$723

Backfill Gravel

One Canterbury supplier charges the following (price includes 15 km travel from gravel source to farm):

Fill-pea metal, 20ml stones and screen gravel	\$20 per cubic metre
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2.18.16 Dairy Shed Effluent Disposal

Examples of capital and running costs for 200 cow effluent disposal systems:

(i) Two Ponds

Major Capital Cost items:

Contractor to dig ponds	\$4000
Land retired, 0.2ha	\$2000
Fencing, pipework	\$1000
Sealing Liner	\$6000
Plus :	
Pump and wiring if required from milking shed	\$2500
Pump pit - concrete	\$1500

Total Capital Costs \$17000

Running Costs:

Weed spray on aerobic pond	\$50
Minor labour requirements:	
Unblocking and repairing pipes	\$150
Desludging required every 4 years - price 4 yearly	\$450 annual

Total Running Costs \$650

(ii) Single Pond or Long Drain

Major Capital Cost Items:

Contractor for pond or drain	\$2000
Share of honey wagon or contractor	\$1000
Plus:	
Pump and wiring if required from milking shed	\$2500
Pump pit - concrete	\$1500

Total Capital Cost \$4500

Running Costs:

Minor repairs and maintenance	\$100
Annual cleaning	\$750

Total Running Costs \$850

(iii) Spray Irrigation

Major Capital Cost Items:

Pump (often needs larger pump than shed to pond model) - 7.5kW with coupled electric motor	\$3900
Wiring	\$1000

Pump pit should gravity drain to a pond storage facility. This holding pond allows effluent to be stored during winter months as its too wet to apply it to land. Essential.

Holding pond	\$2800
Spray irrigator, self-propelled	\$3200
PVC Mainline	\$2000
Alkathene Sprayline	\$600
Fittings and hydrants	\$1600
	<hr/>
Total Capital Costs	\$12900
Running Costs:	
Machines involved(impellers on pumps, switch gear) - annual cost	\$200
Piping: (allow 10 year life). Annual cost	\$200
Power costs	\$700
	<hr/>
Total Running Costs	\$1100

Source: Phil Heatley, Dairying and the Environment: Managing Dairy Effluent, December 1995.

2.18.17 Septic Tanks

Fibreglass

Ribtec:

Super RD 5000	
5000 litre	\$2550
5000 litre with pump out chamber	\$3050
3300 litre Single/Dual Chambered	\$1600/\$1730
Effluent Holding Tanks	
Sloping Base - 3100/5600/8300 litre	\$1180/\$1700/\$1830
Flat Base - 3800/5800/7900/11300 litre	\$850/\$1226/\$1670/\$1870

Concrete

Cement Products Ltd:

2700/3300 litre	\$634.38/\$809.38
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McKendrys:

Envirotank Z5000 3300 litre	\$710
Pumping chamber	\$405
Distribution box	\$108
Septic closet	\$446
Grease trap	\$415
Sludge tank	\$425

2.18.18 Underground Tanks

Ribtec:

18000/27000 litre	\$4500/\$6000
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2.19 FENCING COSTS

2.19.1 Guide to Fencing Costs

Labour:

Fencing contractors charge out at around \$18 to \$24/hour (not including travel). The price for fencing on hill country is determined by such things as contour, ease of digging, ease of access, remoteness of site, size of job and number of strainers and angles required. Labour costs per metre (Canterbury) are currently working out to about \$1.30 on easy land and \$1.50 to \$2.00 on hill country where some hand digging is necessary.

Contract:

Approximate charges for labour and materials for Canterbury conditions:

Flat land: (Costings based on at least 300m of construction. Posts 125mm diam.)

Price per metre

Standard 7 wire	(post per 7m, 4 battens)	\$4.50 to 4.70
Netting	(8/36/12 S.S.H.T.)	\$5.75 to 6.00
Electric	(post per 10m, 5 wire)	\$3.00 to 3.15
Deer	(13/75/12) } see also other detailed	\$9.40
Deer	(11/61/12) } examples over page	\$8.20

Medium Hill Country: 8 wire, post per 7 m, wire droppers \$7.50 to \$8.00

Cost of Materials for Electric Fences: (*Gallagher Electronics Ltd - 1995/96 costings*)
(see also *Sections 2.19.2, and 2.19.8* onward)

- (i) 5 wire fibreglass fence on undulating to hill country, using one 13mm rod and three 10mm rods per 16 metre Cost per km = \$1887
- (ii) 5 electric wire, batten and insulator fence on undulating to hill country at 5 metre spacing Cost per km = \$1492
- (iii) 5 wire (electric) insul timber fence on undulating to hill country. 1 post and 3 droppers per 16 metres. Cost per km = \$1537

Note: This cost does not include the Energizer unit and accessories.

Cost of Materials for Deer Fences: Updated by, "*Wiremakers*"
(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 @	\$18.18	\$1454.00
Strainers 3.7m x 175mm	3 @	\$44.00	\$132.60
Stays 2.7m x 115mm	3 @	\$12.70	\$38.10
Stay blocks 200mm x 50mm x 0.5m	3 @	\$5.98	\$17.94
2.5mm H.T. wire	1200m @	\$0.12/m	\$144.00
150mm x 1900m netting 13 line	400m @	\$395.95/100m	\$1583.80

Gate 3.66 x 1900mm	1 @	\$287	\$287.00
Staples 4mm	12 kg @	\$3.17	\$38.04
Gudgeons lock through post	1 @	\$19.80	\$19.80
Gudgeon through post	1 @	\$8.97	\$8.97
Gate fastener and staple	1 @	\$4.54	\$4.54
			<hr/>
		per 400 metres	\$3,728.79
		Materials Cost per metre	\$9.32
		Labour Cost per metre	\$3.00

(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 @	\$18.18	\$545.40
Droppers 1000mm x 40mm x 50mm	100 @	\$1.17	\$117.00
Strainers 3.0m x 175mm	9 @	\$35.00	\$315.00
Stays 2.7m x 115mm	9 @	\$12.70	\$114.30
Stay blocks 200mm x 50mm x 0.5m	9 @	\$5.98	\$53.82
2.5mm H.T. wire (1 coil = 648m)	9.4 coils @	\$53.00	\$498.20
Plastic strain insulators	48 @	\$0.70	\$33.60
Joint Clamps	24 @	\$0.60	\$14.40
Cut-out switch	1 @	\$5.63	\$5.63
Gate breaks (flexible connectors)	4 @	\$3.82	\$15.28
Gates	4 @	\$184.45	\$737.80
Staples 4mm	2 kg @	\$3.00	\$6.00
Gudgeons lock through post	4 @	\$19.80	\$79.20
Gudgeons through post	4 @	\$8.97	\$35.88
Gate fasteners and staple	4 @	\$4.54	\$18.16
			<hr/>
		cost per 1000 m	\$2589.67
		Cost per metre	\$2.59
		Labour per metre	\$2.00

Fence Design B:

Consists of 3 live wires above 800mm 7 line netting.

The netting provides an excellent physical barrier for young stock and yet the fence is still inexpensive and quick to erect.

Spacings: Same as for the Fence Design A.

Materials required for 1000 metres

Posts 2.7m x 125mm	30 @	\$18.18	\$545.40
Droppers 1.52m insul timber	100 @	\$8.50	\$850.00
Strainer posts 2.7m x 200mm	9 @	\$33.38	\$300.42
Stays 2.7m x 115mm	9 @	\$12.70	\$114.30
Stay blocks 200mm x 50mm x 0.5m	9 @	\$5.98	\$53.82
2.5mm H.T. wire (648m/coil)	4.7 @	\$53.00/coil	\$249.10
Wire netting (800mm x 300mm, 7 line)	1000m @	\$34.25/100m	\$1342.50
Plastic strain insulators	24 @	\$0.70	\$18.90
Joint clamps	12 @	\$0.57	\$6.84
Cut-out switch	1 @	\$5.63	\$5.63
Gate breaks (flexible connectors)	4 @	\$3.82	\$15.28
Gates 3.66m x 1900m	4 @	\$184.45	\$737.80
Staples 4mm	3 kg @	\$3.00	\$9.00
			<hr/>
		cost per 1000 m	\$4248.99
		Cost per metre	\$4.25
		Labour per metre	\$2.00

2.19.2 Wire

(see also *Section 2.19.5, Wire Netting*)

Wiremakers Ltd.:

	<u>Gauge of Wire</u>	<u>Length of Coil</u>	<u>\$ per 25kg coil</u>
Flexspan: (Mild Steel)			
	3.55mm (No.9) - 25 kg	321 metres	\$67.00
	4.00mm (No. 8) - 25 kg	253 metres	\$59.00
Hispan: (High Tensile Steel)			
	2.00mm - 25 kg	1013 metres	\$77.00
	2.50mm - 25 kg	648 metres	\$55.00
	3.15mm - 25 kg	408 metres	\$65.00
Span 7 (High Tensile Cable) 6.0mm			\$0.58 per metre
Barbed			
Iowa Pattern	75 mm spacings	225 metres (approx)	\$85.60 per 25 kg coil
	150 mm spacings	255 metres (approx)	\$82.90 per kg coil
Reverse Twist HT		RT 150mm spacings	\$93.70 per 500 m
		RT 100mm spacings	\$99.35 per 500 m
<i>Hurricane:</i>			
Barbed Wire Standard 2.5mm, 75 and 150mm		25kg reel	\$117 per reel
Reverse Twist 1.6mm HTHTR 100mm/150mm		500m reel	\$142 per reel
Lacing Wire	2.0mm	10kg coil	\$50.48
	1.6mm	10kg coil	\$59.63

2.19.3 Posts/Strainers/Droppers/Battens/Stays (see also *Section 2.19.11*)

Note: Price discounts of 10 to 15% may be possible for bulk orders.

McVicar Timber Group Ltd:

Fencing Posts/Stays -		
Half-Round	1.8m	\$7.38
Posts (1.8 m pointed)	75 to 100mm	\$6.44
	100 to 125mm	\$7.87
	125 to 150mm	\$9.78
Deer Posts	125mm x 2.7m pointed	\$18.18
Stays	75 to 100mm x 2.4m	\$11.42
	75 to 100mm x 2.7m	\$12.05

Strainers -		
175mm to 200mm x 2.1m pointed		\$19.60 to \$22.14
175mm to 225mm x 2.4m pointed		\$24.70 to \$29.60
200mm x 2.7m pointed		\$33.38

Droppers/Battens -		
50mm x 40mm x 1m		\$1.07
50mm x 40mm x 1.05m		\$1.15
50mm x 40mm x 1.2m		\$1.25

Gallagher:

Insultimber		
Post, No. 1	1520 x 38 x 38mm	\$6.50
Post, No. 2	1380 x 38 x 38mm	\$5.82
Droppers	940 x 38 x 26mm	\$3.02
Tie down	700 x 38 x 26mm	\$1.34

Hurricane:

Fencing Standards (Waratah)	Price/Waratah
1650mm	\$12.45
1800mm	\$13.28

Placemakers:

100 x 100mm	1.8/2.4/2.7/3 m	\$19.72/\$22.22/\$24.89/\$27.53 each
100 x 75mm	2.4/2.7/3 m	\$16.44/\$18.67/\$20.44 each
125 x 75mm	2.7m	\$16.17 each

McKendrys:

Concrete Fence Posts		
Intermediate farm post 1.83m		\$14.00
6" x 6" (150 x 150 mm) Light Square strainer 2.134m		\$39.00
7" x 7" (175 x 175 mm) Medium square strainer 2.134m		\$42.50
8" x 8" (200 x 200 mm) Heavy square strainer 2.134m		\$52.50
Stay posts 2.44m		\$17.00

Stay blocks		\$6.00
Paling fence posts 2.743/2.440/1.83 m		\$20.00/\$21.37/\$13.00

R.A.Shearing Contractors Ltd.:

Concrete Fence Posts;	1.8/2.4/2.7 m	\$11.84/\$17.12/\$17.69
Concrete Gate Posts;	2.4/2.7 m	\$33.66/\$35.20
Stays:	2.4/2.7 m	\$15.73/\$16.12
Stay Blocks:		\$5.98

2.19.4 Gates

Wooden

McVicar:

Hurdles:	1.8/2.1 m	\$29.82/\$31.82
Gates:	3.6/4.2 m	\$81.60/\$85.56

Steel

Wiremakers:

Farm Gates:		
Economy	3.05m to 4.27m	\$90 to \$97
Deer Gates: 1.9m high	3.05m/3.66m/4.27m long	\$205/\$191/\$208

Hurricane:

<u>Farm Gates</u>	<u>Length (m)</u>	<u>Price</u>
Sheep Gates	3.05 to 4.25	\$136 to \$146
Cattle Gates	3.05 to 4.25	\$178 to \$222
Stockmaster Gates	3.05 to 4.25	\$266 to \$361
Barred Gates	3.05 to 4.27	\$218 to \$278
Deer Gates - 1900mm	3.05 to 4.25	\$287 to \$309
- 1550mm	3.05 to 4.25	\$279 to \$309

2.19.5 Wire Netting

Placemakers:

Galvanised hexagonal wire netting -aviary	\$118.22 per 50m roll
-chicken	\$52.22 per 50m roll
Galvanised chain link netting	\$110.40 to \$440.60 per roll
Plastic coated chain link netting	\$259.89 per roll

Wiremakers: Cyclone

	<u>per 100m Roll</u>
Twinlock Field	
9 line 980 mm high, 300 mm spacings	\$187
8 line 900 mm high, 150/300 mm spacings	\$213/\$163
8 line 800 mm high, 150/300 mm spacings	\$217/\$160
7 line 900 mm high, 150/300 mm spacings	\$196/\$153
7 line 800 mm high, 150/300 mm spacings	\$200/\$138
6 line 700 mm high, 300 mm spacings	\$129
5 line 525 mm high, 150/300 mm spacings	\$134/\$106

Tightlock Deer (100m rolls):	
17 line 1900 mm high, 150/300 mm spacings	\$529/\$346
15 line 1550 mm high, 150 mm spacings	\$459
13 line 1900 mm high, 150/300 mm spacings	\$395/\$265
11 line 1550 mm high, 150/300 mm spacings	\$333/\$247

Top-up Fence:	
4 line 600 mm high, 600 mm spacings 200 metre roll	\$135

Tightlock Field Fence (100m rolls):	
9 line 900 mm high, 150/300 mm spacings	\$275/\$202
8 line 900 mm high, 150/300 mm spacings	\$233/\$171
7 line 900 mm high, 150/300 mm spacings	\$223/\$160

Note: All netting is High Tensile (HT) unless otherwise stated.

Farm Mesh 75mm x 150mm x 4mm diameter galvanised wire	
840/1150 mm wide roll, per 30 metre roll	\$226/\$280

Hurricane:

High Tensile Boundary Fence		<u>per 100 metres</u>
Staytight	17/190/15 to 11/155/315	\$372/\$794
Hinge Joint	13/190/15 to 11/135/15	\$459/\$585
Economy	13/190/30 to 11/155/30, 200 m	\$552/\$624

High Tensile Boundary Fence		
Staytight	8/90/15 to 7/90/30	\$351/\$240
Hinge Joint	South Island 8/90/30 to 7/75/30	\$245/\$209
	North Island 8/90/15 to 7/90/30	\$320/\$122
	8/80/15 to 7/90/30	\$238/\$340
Economy	6/70/30, 200m	\$304

2.19.6 Fencing Tools and Equipment

Straining Equipment

Beattie Insulators:

Wire strainer - Insulated	\$2.62
- Uninsulated	\$2.06
Porcelain strainer	\$1.00

Wiremakers:

Hayes wire Strainers:

	<u>Price per Item</u>
Hayes Permanent 302 (Pack of 25)	\$2.30
Tightening Handle - Permanent	\$5.85
Chain Wire Strainer	\$66.10
Tension Indicator	\$26.60

Hurricane:

Boundary Fence Clamp	\$126
Deer Fence Clamp	\$200
Pull Down Tool with Chain	\$84
Pull Down Tool without Chain	\$18

Post and Standard Drivers

Wiremakers:

Post Rammer Pipe or Wooden Handles	\$25.60
Standard Driver 352 Tubular	\$56.85

Post Hole Diggers

Aitchison Industries: - Mate Post Hole Diggers

100cc motorised powerhead	\$1249
Augers - right hand	

<u>Size</u>	<u>Price</u>
50.8 mm	\$152
101.8 mm	\$188
152.4 mm	\$223
203.2 mm	\$259
254 mm	\$294

Rock Auger - Tungsten carbide cutters (right hand)

91.44cm x 42.88mm (Auger only)	\$301
Rock auger tip	\$75

2.19.7 Cattle Stops

C & F Industries:

Type 50, 3.6m x 2.1m Heavy Duty	\$1406
3.6m Concrete Surround	\$545

2.19.8 Electric Fence Energisers

Gallagher:

Mains energisers M2500 to MX5000	\$1,512 to \$1,241
Mains powered M120 - up to 15 km multi wire fencing	\$168
M4000 - up to 100 km multi wire fencing	\$1,007
Battery powered B15 - up to 1.5 km multi wire fencing	\$155
B1200 - up to 60 km multi wire fencing	\$830
Solar powered B150 solar kit, 10 watt	\$634
B1200 solar kit, 60 watt	\$2,509

2.19.9 Insulators

Beattie Insulators:

Wooden Post Insulators	\$0.17 to \$0.48
Waratah or Y Insulators and Flat Standard Insulators	\$0.28 to \$0.35
Strainer / Corner Insulators	\$0.40 to \$1.00
Gate Break	\$2.62
Outriggers	\$1.00 to \$1.05 each
Pigtail Outriggers	\$1.20 to \$1.95
Concrete post outrigger	\$0.90
Rod Insulator	\$0.17

Gallagher:

Plastic	
Super Strain - white	\$0.92
Turbo end strain - red	\$0.11
Long Life wooden post	\$0.40
Pinlock wooden post	\$0.27
Pinlock Y steel post	\$0.36
Polytape insulator for polytape, up to 40mm	\$2.80

2.19.10 Electric Fence Reels and Wire

Beattie Insulators:

Underground Cable	- 1.6mm x 50m	\$17.14
	- 1.6mm x 100m	\$33.90
	- 2.5mm x 50m	\$22.00
	- 2.5mm x 100m	\$42.50
	- 2.5mm x 250m	\$112.65
Insulation Tube: 30m coil		\$10.35
Self insulated fence reel with spring loaded ratchet latch		\$19.50
Electric Net, 50 metres		\$104.86

Wiremakers: - Electric Fence Wire

2.00 mm/1.60mm (Soft)	\$33.65/\$39.70 per 10 kg
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Gallagher:

Strip grazing reels	- small	\$26.34
	- medium complete with handle and insulgrip	\$35.58
	- medium geared complete with handle	\$39.00
	- large geared complete with handle and insulgrip	\$55.00
Triple reel system (3 reels prewound polywire mounted on stand)		\$168.00
Reel stand for deer fencing (1 to 4 reels)		\$26.00
Reel stand (1 to 3 reels)		\$15.00
Lead, connector for single reel		\$4.16
Lead, connector for multi reels		\$11.30
Wire and Tape		
XL wire, aluminium coated high conductive 1000m		\$358.00

Polywire - Ultra white, 6 strand, 200/500m	\$12.45/\$30.62
Turbo Wire - White XL, 9 strand, 200/400m	\$27.46/\$51.86
Polytape - Orange/white, 5 strand, 200m	\$22.00
Turbo tape - White, 200/400m	\$28.91/\$56.20

2.19.11 Electric Fence Standards/Outriggers

<i>Stafix:</i> (1995 prices)	<u>Each</u>
Tread - white or red	\$2.60
Fibreglass pigstail standard	\$3.12
Fibreglass rod and clips 9 and 12mm x .85 to 2mm	\$1.78 to \$7.38

Gallagher:

Tread-in, polymer, multiwire	\$2.22
Heavy duty multiwire tread-in	\$4.13
Extenda-post (heavy duty tread-in with extension)	\$5.10
Pigtail standard (white plastic coated)	\$1.56

Fibreglass:

Post 1200 x 10 mm/1370 x 13 mm (white)	\$2.41/\$4.70
Post 1500 x 10mm/2000 x 10 mm (orange)	\$3.02/\$4.03
Post 2000 x 13 mm (white)	\$7.06
Quick Clips 10 mm/13 mm	\$0.16 to \$0.22
Pressure Plate (for 10 and 13 mm)	\$0.53
Cap, Driver	\$7.55
Outrigger 10 mm diameter x 20 mm	\$0.71
Outrigger pointed 10 mm diameter x 300 mm	\$1.01

2.19.12 Electric Fence Cable

Gallagher:

1.6 mm double insulated cable, 50 m	\$20.00
2.5 mm undergate double insulated cable (2 x 50 m)	\$73.81
Leadout cable, XL high conductive, 200 m	\$210.20

Stafix: (1995 prices)

Underground Cable 50m x 1.6mm; and 50m x 2.5mm	\$22.56 and \$41.99
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2.19.13 Electric Fencing Accessories

Gallagher:

Testers -	Neon	\$23.88
	Digital volt meter	\$60.55
	Live lite tester	\$29.51
	Digital volt meter, old type	\$95.38
Batteries -	Dry Cell	\$54.88
	Low loss	\$281.00

Earthing Equipment:	Galvanised joint clamp	\$0.60
	Screw in tie down (galvanised)	\$3.86
	Screw in tie down handle	\$19.75
	Earthing stake, galvanised 2m	\$14.56
	Earth clamp, galvanised	\$4.47
	Gallagher super earth kit	\$72.80

Stafix:

Cut out switches		\$7.54
	- heavy duty	\$8.19

Gate Breaks	- standard	\$3.90
	- spring gates	\$10.40

Tester		\$71.50
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2.19.14 Staples

Hurricane:

Plain	4.00 to 2.00mm diameter	\$29.70 to \$31.88 per 5kg pack
Barbed	4.00 to 2.80mm diameter	\$32.85 to \$33.15 per 5kg pack

Concrete Post Staples		\$139.50 per 20kg bag
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2.20 MACHINERY, IMPLEMENTS AND PLANT

At present, 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

Note: 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.

	<u>Average Price</u>	<u>Range</u>
22 to 37 kW (30 to 50 HP)	\$33,360	\$24,600 to \$44,900
38 to 52 kW (51 to 70 HP)	\$43,200	\$29,900 to \$58,000
53 to 75 kW (71 to 100 HP)	\$62,000	\$34,000 to \$91,600
Over 75 kW (over 100 HP)	\$114,600	\$61,700 to \$177,300

Farm Bikes (see *Section 2.20.4*)

2 wheel	\$7,180	\$3,550 to \$10,500
4 wheel	\$8,800	\$5,150 to \$11,370

Trucks and Utilities (see *Section 2.20.14*)

There are a range of models with differing cab/deck arrangements, mostly with a choice of fuel type and 4WD option.

2WD vehicles	\$30,190	\$19,500 to \$42,300
4WD vehicles	\$44,000	\$19,400 to \$73,750

2.20.2 Implements and Plant - Average Prices

Note: Please refer to later sections for details of specific models.

	<u>Average Price</u>	<u>Range</u>
Mowers (see <i>Section 2.20.5</i>)		
Drum or Disc (these may have a conditioner attached or as an optional extra)	\$8,890	\$3,110 to \$13,500
Mower Conditioners	\$32,800	\$15,950 to \$82,530
Toppers/Slashers	\$5,500	\$1,940 to \$12,450
Hay Rakes (see <i>Section 2.20.6</i>)	\$13,700	\$1,845 to \$42,440

	<u>Average Price</u>	<u>Range</u>
Hay Balers (see Section 2.20.6)		
Conventional	\$34,900	\$28,600 to \$38,950
Big balers - Round	\$43,750	\$29,500 to \$59,990
- Square	\$122,530	\$111,990 to \$132,330
Ploughs (see Section 2.20.15)		
Depending on the number of furrows and tractor mounting	\$14,600	\$844 to \$31,000
Discs (see Section 2.20.15)		
	\$9,640	\$6,500 to \$13,300
Harrows (see Section 2.20.15)		
	\$1,000	\$400 to \$4400
Power Harrows		
	\$26,400	\$10,790 to \$63,500
Rollers (see Section 2.20.15)		
Heavy rollers	\$12,000	\$8,000 to \$16,000
Cambridge rollers	\$9,180	\$3,500 to \$30,640
Drills (see Section 2.20.17)		
	\$22,018	\$9,990 to \$98,500
2.20.3 Tractors		
<i>Belarus:</i>		
	<u>2WD</u>	<u>4WD</u>
51-70HP/71-100HP	\$29,900/\$39,750	\$34,900/\$33,950
<i>Ford:</i>		
2 Wheel Drive		
37.5 kW (51 HP) to 51.8 kW (70 HP)		\$29,906 to \$46,506
55.5 kW (75 HP) to 75.0 kW (100 HP)		\$59,794 to \$77,150
4 Wheel Drive		
45.7 kW (61HP) to 51.8 kW (70HP)		\$44,904 to \$57,974
55.5 kW (75HP) to 77.0 kW (100HP)		\$51,499 to \$86,951
110 HP to 125 HP/170 HP to 240 HP	\$97,982 to \$104,277/\$147,536	to \$177,299
<i>Fiatagri:</i>		
	<u>2WD</u>	<u>4WD</u>
Agricultural		
66 Series - 45 to 80 HP	\$32,109 to \$44,831	\$36,720 to \$51,963
93/94 Series - 65 to 85 HP	\$41,732 to \$68,959	\$46,940 to \$78,507
Winner Series - 100 HP	\$82,172	\$93,261
- 115 to 140 HP		\$100,490 to \$117,802
Orchard		
86 Series -55 to 80 HP	\$35,200 to \$53,982	\$41,633 to \$58,482

**designed for the way
you want to work**

**FORD GENESIS™
70 SERIES**

- 170 to 240 hp range
- Full 16x9 Powershift transmission with straight line shuttle and programmable shifting
- Unrivaled operator comfort and moveable driver console
- SuperSteer™ front axle option



GENESIS
70 SERIES

Iseki:

	<u>2WD</u>	<u>4WD</u>
5-30 HP		\$13,900 to \$26,500
31-50HP		\$24,600 to \$44,900
51-70HP	\$34,800 to \$92,500	\$39,600 to \$46,800
42 to 58 HP (no cab)	\$31,800 to \$34,800	\$29,800 to \$39,600
42 to 58 HP (cabs)	\$42,500	\$46,800
TA Orchard -		
TA 545 to TA 560	\$34,600 to \$41,100	\$41,100 to \$46,150
SX Series Models -		
65 to 75 HP (no cab)		\$47,500 to \$56,500
65 to 75 HP (XG cab)	\$48,700	\$54,300 to \$66,700
85 to 95 HP (no cab)		\$56,900 to \$59,900
85 to 95 HP (super cab)		\$74,500 to \$82,800

J.I. Case:

Agricultural -		
2 wheel drive	53 to 84 HP (incl. cab models)	\$35,650 to \$57,000
	100 HP A/C Cab	\$83,500
4 wheel drive	46 to 72 HP (incl. cab models)	\$38,750 to \$58,900
	84 to 100 HP A/C Cab	\$51,250 to \$91,000
	110 to 265 HP	\$99,000 to \$161,280
Horticultural -		
2WD/4WD	64 HP	\$40,375 to \$45,312

John Deere:

Compact 20 to 39 HP		\$19,890 to \$27,890
2000 Series 59 to 100 HP		\$38,600 to \$57,468
5000 Series 46 to 68 HP		\$37,316 to \$42,761
6000 Series 78 to 133 HP		\$74,080 to \$111,766
7000 Series row crop tractors 130 to 170 HP		\$121,912 to \$130,271
8000 Series row crop tractors 160 to 225 HP		\$146,254 to \$176,640

Kubota:

B series -	4WD	17 to 24 HP	\$19,532 to \$23,030
GRAND L series -	2/4WD	38 to 45 HP	\$29,356 to \$42,495
L series -	4WD	53 to 59.5 HP	\$38,500 to \$39,950
M30 Series Models -	4WD	66 to 76 HP	\$44,708 to \$48,132
M1 Series Models -	4WD	83 to 108 HP	\$59,875 to \$81,980

Massey Ferguson:

	<u>2WD</u>	<u>4WD</u>
31/50HP	\$29,800	\$39,900
51/70HP	\$38,600 to \$48,900	\$44,800 to \$47,500
71/100HP	\$44,800 to \$77,500	\$48,900 to \$89,900
100+HP	\$66,900 to \$67,900	\$61,700 to \$110,700

<i>Same:</i>		
51-70HP	\$39,500	\$44,900 to \$44,800
71-100HP	\$42,900	\$48,900 to \$91,640
100+HP		\$105,000 to \$140,000

2.20.4 Farm Bikes and Bike Trailers

Honda:

2 Wheeler 100 to 250cc		\$3,551 to \$8,173
4 Wheelers - TRX300 2WD/4WD		\$7,995/\$9,244
- TRX400 4WD		\$11,373

Kawasaki:

KLF 220A9/KLF 300B9		\$6,605/\$7,785
KLF 300C8		\$9,399
KLF 400B4		\$10,498
KAF 300B2 Mule		\$8,382
KEF 300A1 Sport		\$7,612

Suzuki:

2 Wheeler TF 125X Mudbug		\$3,640
Dual Purpose TS 125 to DR 350		\$3,640 to \$7,876
4 Wheeler - 2WD 160P/250P		\$5,151 to \$7,467
- 4WD 250P/300XP		\$8,745 to \$9,507

Yamaha:

2 Wheeler - AG100G/AG200G		\$3,670/\$4,725
- TW200H/XT250E		\$5,245/\$6,080
4 Wheeler - Timberwolf 4 x 2/4 x 4		\$7,261/\$8,395
- Big Bear 4 x 2/4 x 4		\$8,135/\$9,269
- Kodiak 4 x 4		\$10,497
- Wolverine 4 x 4		\$10,986

Farm Bike Trailers

Giltrap Engineering:

1.8 x 1.2, single axle - no crate/with crate		\$1,260 to \$1,550
tandem axle - no crate/with crate		\$1,670 to \$1,960

Smiths Attachments: (freight paid)

1200 x 900 trailer	- ply/mesh deck	\$788/\$879
	- stock crate	\$232
1500 x 1100 trailer	- ply/mesh deck	\$853/\$976
	- stock crate	\$276
1500 x 1100 hay trailer	- ply/mesh deck	\$1,019 to \$1,155
	- hay stock crate	\$219
1800 x 1200 trailer	- ply/mesh deck	\$1,041 to \$1,194
	- stock crate	\$315

All trailer prices include balloon tyres and ball coupling.

1.3 m x 1 m to 2.6 x 1.3 m trailer (galvanised)	\$800 to \$1,800
Stock Crate for trailers (galvanised)	\$231 to \$450
Grain feeders 5 bag capacity	\$786 to \$1,320
Round bale feeder	\$1,507 to \$2,333

2.20.5 Mowers and Toppers

Howard:

Smart Finishing Mowers - for tractors 12 to 45HP	\$3,107 to \$3,968
Drum Mowers - 1.7 m	\$7,980
- 1.9 m	\$9,396
Disc Mowers - DCM 165 1.6 m	\$7,669
- DCM 210 2.1 m	\$8,367
- DCM 245 2.6 m	\$9,049

Kuhn:

GMD 44 Multi-Disc Mower - Hydraulic	\$8,300
GMD 500	\$10,360
GMD 600	\$11,960
GMD 66	\$10,590
GMD 77 Multi-Disc Mower - Heavy Duty Disc	\$12,260

Lely: Modular Disc Mowers

	<u>Discs</u>	<u>Cutting width</u>	<u>Price</u>
165	4	1.6 m	\$7895
205	5	2.05 m	\$9,595
240	6	2.4 m	\$11,975
280	7	2.8 m	\$13,275
320	8	3.2 m	\$14,775

PZ Mowers:

Drum mower	1.65 m to 2.3 m	\$7,990 to \$13,990
PZ Laser Beltdrive disc mower	2.0 m to 2.4 m	\$10,750 to \$11,950
6 Disc Mower 2.15/2.4 m		\$9,990/\$10,990

Trimax:

		Cutting Width	Standard	Heavy Duty
Ezeemow	North Island	1.17 to 1.83m	\$3,630 to \$5,580	\$3,880 to \$4,030
	South Island		\$3,730 to \$5,680	\$3,980 to \$4,130
Mowcraft	North Island	1.52m to 2.44m	\$5,490 to \$6,890	\$5,750 to \$7,150
	South Island		\$5,590 to \$6,990	\$5,850 to \$7,250
Mulchmaster	North Island	1.55m to 2.16m	\$6,490 to \$7,150	
	South Island		\$6,590 to \$7,250	
Warlord - Parks & Reserves				
	North Island	1.44 to 2.34 m	\$6,620 to \$8,090	
	South Island		\$6,720 to \$8,190	
- Roadside Contractors		"		
	North Island		\$6,870 to \$8,340	
	South Island		\$6,970 to \$8,440	
- Orchard Mower/Mulcher				
	North Island	1.44 to 2.94m	\$6,490 to \$10,990	
	South Island		\$6,590 to \$11,090	
- Flail Topper				
	Stubble Mulcher			
	North Island	"	\$6,490 to \$10,990	
	South Island		\$6,590 to \$11,090	

Sidewinder	North Island/South Island		\$3,390 to \$3,860/\$3,390 to \$3,960	
Warrior	North Island/South Island		\$8,430 to \$9,430/\$8,530 to \$9,530	

Veemow 3.2 to 3.4m	North Island/South Island		\$8,530 to \$8,630/\$9,170 to \$9,270	
Stealth 3.2 to 3.4m	North Island/South Island		\$9,160 - \$13,140/\$11,270 - \$13,650	
Procut 1.38 to 3m	North Island/South Island		\$3,780 to \$7,960/\$3,880 to \$8,060	
Topper 1.74 to 3m	North Island/South Island		\$5,090 to \$6,940/\$5,190 to \$7,440	

Tulloch:

JF CM 1900/2250 hay mowers				\$9,400/\$11,950
Krone AM 202/242/282 mowers				\$10,525/\$11,850/\$13,500

Vicon:

CM 167 M, 1.65 m disc mower 3 blades/disc				\$8,995
CM 217 H, 2.15 m disc mower, 3 blades/disc				\$10,990
CM 247 H, 2.4 m disc mower, 3 blades/disc				\$11,990

Mower Conditioners

Howard:

Drum mower conditioner DM 195RC 6'4"				\$14,216
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Kuhn:

FC 202/FC 280 F				\$17,060 to \$24,730
FC 300 GD/FC 350 GD				\$37,390 to \$39,970

FC 301 GD	\$43,410
FC 500-Alterna	\$82,530

Lely:

5 disc mower conditioner, 2.05m	\$15,950
6 disc mower conditioner, 2.4m	\$17,950
7 disc mower conditioner, 2.8m	\$19,950
7 disc front mower conditioner, 2.8m	\$21,390

New Holland:

411 Discbine	\$38,497
412 Orgabine with survival hitch	\$38,951

Tulloch:

JF CM 2650c/JF GX 2800SMT, 2.65/2.8 m mower conditioner	\$22,080 to \$27,400
JF CMT 2800c, 3.0 m 3-drum mower conditioner	\$31,000
Gehl DC 2340/2360, 2.7/3.1 m mower conditioner	\$34,500 to \$36,900
Krone AM 242z 2.4 m, mower conditioner	\$19,400
Krone AFL 282z 2.8 m , front mounted mower conditioner	\$27,230
Krone AMT 283cv/323cv, 2.8/3.2 m trailed mower conditioner	\$35,710 to \$39,340

Vicon:

AMS 2400 Three point 2.4m cut - Auger and Flail	\$21,990
AMS 2400 Trailing 2.4m cut - Crimper	\$37,990
GMR 2800 Trailing 2.8m cut - Crimper	\$39,990
GMR 3200 Trailing 3.2m cut - Crimper	\$42,990

Toppers/Slashers

AgMark:

Trojan Rotary Slasher-Trojan 1500 (1.52 m cut)	\$2,445
Trojan Rotary Slasher-Trojan 1500HD (1.52 m cut)	\$3,695
Crusader Rotary Topper-Crusader 2300 (2.3 m cut, including skids)	\$5,195
Crusader Rotary Topper-Crusader 3100 (3 m cut, including wheels)	\$8,595
BNU - 160 Nobili (1.6 m cut)/195 Nobili (2.3 m cut)	\$6,450/\$6,890
BNG - 230/270/310 Nobili (2.3/2.7/3 m cut)	\$7,950/\$9,950/\$12,450

Giltrap Engineering: (Includes freight)

1.2m to 1.5m cutting width, 3-4blade	\$1,850 to \$2,600
1.5m width, 2 blade HI SPEED topper	\$2,380
2.3m to 3.0m cutting width, 2 rotor, rigid frame	\$5,600 to \$7,800

Howard:

Clipper - for tractors up to 45HP	\$1,938
Nugget - for tractors 27 to 45HP	\$2,395 to \$3,341
HD - for tractors up to 100HP	\$4,292 to \$4,655
EHD - unlimited HP @ 540 r.p.m. PTO	\$5,876 to \$8,229

2.20.6 Hay Making Equipment

Hay Rakes and Tedders

Howard:

Tedder Rake - Haytrix 300 - 10', PTO driven	\$4,795
Mounted Finger wheel rakes FW 4 (9'6") to FW 6 (13'6")	\$1,845 to \$2,584
Trailed Wheel Rakes TR 6 Columbia (13') to TR 9 (19')	\$4,695 to \$8,338

Kuhn:

Tedder/Rake GRS 25N	\$10,650
Gyrorake GA 300/GA 4101	\$5,770/\$10,600
Gyrorake GA 4101 GT	\$10,600
Gyrorake GA 7301/GA 7302	\$28,550 to \$37,870
Gyrotedder GF 5000	\$8,560 to \$9,070
Gyrotedder GF 7000 T	\$13,410

Lely:

Lotus Combi, 3m working width	\$5,250
Superzip Combi, 3.8m working width	\$7,850
Lotus Stabilo Combi, 6m working width	\$14,250

New Holland:

258 Rollabar with ground drive/hydraulic drive	\$10,365/\$11,365
216 Unitized Vee Rake	\$42,438

PZ:

Haybob 300R Rake - centre raking	\$6,490
Fanex 500A Tedder fixed or lift link drawbar	\$9,975
Fanex 642 DH Tedder Cat 1 & 2	\$15,990
CZ 450 Silage Rake	\$14,990
PZ Andex 302 to 382 Rake	\$6,990 to \$10,590
PZ Andex 432 to 722 Rake	\$11,990 to \$30,990

Tulloch:

JF CRS400 hay rake/tedder	\$13,110
Fransgard TI-4000/6000 hay rake	\$13,450/\$19,850
Fransgard RV390 hay rake	\$10,950
Krone KW rotary hay tedder	\$17,200 to \$22,290

Big Balers - Round

John Deere:

590 SL2 Round Baler	\$38,074
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Tulloch:

Gehl RB1310 round baler	\$29,500
Gehl RB1475/RB1870	\$37,750/\$48,200

Make hay the Cosgrove way !



Improve the nutritional value of your silage and hay with the Kuhn and Welger range of Haymaking equipment.

Now available at your nearest dealer Kuhn Mowers, Mower Conditioners, Rakes, Tedders and Welger Round Balers.



"Only the Best " in European Haymaking machinery for you this season.



DEALERS NATIONWIDE



NZ Manufacturer and Distributor for Kuhn and Welger

DAN COSGROVE LTD.

HEAD OFFICE 31 LECKIE STREET. PHONE (03) 688-4169 - FAX (03) 684 8075
TELEPHONE WARREN EAGLE: AFTER HOURS (03) 615 - 8637

COMMITTED TO BETTER HAYMAKING

Krone KR130/KR160 M-S round baler	\$37,000/\$48,950
Krone KR130 with cutter	\$51,350

Vermeer:

504I Silage Baler 5' x 4' variable chamber	\$42,145
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Vicon:

RF 120 Standard	\$37,990
RV 186 Standard 1.4 m Pickup, netwrap	\$39,990
RV 186 Wide Pickup 2.00 m, netwrap, wide tyres	\$59,990

Welger: roller type open chamber

RP 200 twine tie	\$39,980 to \$46,190
RP 200 net wrap	\$44,020 to \$53,950

Big Balers - Square

New Holland:

D1010/D1210	\$123,279 / \$132,327
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<i>Vicon:</i> CB 8080 Enterprise	\$111,990
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Conventional Balers

<i>New Holland:</i> NH 570 Rectangular Baler	From \$37,195
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<i>John Deere:</i> 348 IE1 Rectangular baler	\$28,626
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<i>Welger:</i> AP 630 with hydraulic drawbar shifting device	\$38,950
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Bale Wrappers

Duncan Industries Ltd:

DML model BW2 balage wrapper - ground roll wrapper (towable type)	\$4,950
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Howard:

Reco Autowrapper, complete	\$34,950
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Michale:

Round -991B/BE trailed	\$25,580 to \$30,495
-991B/BER mounted	\$14,620 to \$23,150

Tanco:

Series 550 trailed round baler	from \$24,520
Series 1050 trailed square and round bale wrapper	from \$30,750

Tulloch:

Pronovost P-6300E round silage bale tubing machine	\$28,600
Elho 1410 trailed round bale wrapper	\$28,500
Elho 1410F trailed bale wrapper for round and big square bales	\$31,000

Baling Twine*Donaghys:*

For conventional bales:

Standard (heavy sisal) - 1200 m \$30.42

Freerun (clipped heavy sisal) - 1200 m \$33.52

Extra (synthetic) - 1200 m \$31.77

For big round bales:

Bulky (synthetic) - 1350 m \$37.63

Natural (sisal) - 1200 m \$39.54

For big square bales:

Big tough - 1200 m \$53.22

Don 350 - 1200 m \$55.75

Baling Wrap: see *Section 2.20.11.***Hay Handling Equipment***Duncan Industries Ltd:*

Big Bale Side feeders \$4,370 to \$6,150

Multi-bale feeders 2 to 3 bales \$8,330 to \$9,450

Three point linkage bale fork -standard type 1200kg capacity \$750

-heavy duty 1600kg capacity \$995

Giltrap Engineering:

Round Bale Feeder - two directional \$4,650

Michale:

Bale Handler \$2,750

Quin Baleboy's Ltd:

Big Bale Clamp \$1,690

Soft Arms \$250

Big Bale Spikes - includes removable tines \$740

Big Bale Spikes - soft nosed (wrapped bales) \$650

Big Bale Tines \$140

Silage Forks 5 x Tine Forks Complete \$600

Silage Forks 7 x Tine Forks Complete \$660

Taege Manufacturing:

3 Point Linkage Bale Feeders - comb and cutter one side \$5,650

- side load arm extra \$1,200

2 Bale Trailing Bale Feeder \$8,950

Multi Bale Feeders - 5 bale \$14,600

2.20.7 Spray Equipment

Ag Mark:

M209 - 1415 Maxiblast 2000 litre	\$15,950
GTM - P454/P55D10 Turbomiser 400/1000 litre	\$7,776/\$20,995
GTM - P5520G Turbogrape 2000 litre	\$24,995

Croplands Equipment Ltd:

Cropliner Range of Trailed Sprayers -

620 to 920 mm fan, 120 litres per minute pump, 2000 litres	\$10,970 to \$17,350
Narrow Gauge Sprayer 700 litres, 620 to 920 mm fan	\$6,220 to \$10,240
Cropair 3PTL Airblast -500 litre	\$3,980 to \$8,610
Fieni Airblast	\$3650 to \$6200
Broadcare series	
1000 litre 10 to 15metre boom - manual/electric	\$5,850 to \$10,660/\$6,810 to \$11,620
1500 litre no boom or 12m and 15m boom - manual/electric	\$6,850 to \$11,350/\$7,810 to \$12,310

Cropspray series

700 litre 10 to 12m boom - manual/electric	\$3,950 to \$10,900/\$4,910 to \$11,860
900 litre 10 to 12m boom - manual/electric	\$4,590 to \$11,540/\$5,550 to \$12,500
Foam markers, single sided/2 pot foam marker	\$850 to \$1,995
Ute Pak Series - 50 to 450 litre, tank and frame	\$270 to \$1,100
Crop Pak (trailer) - 50 to 450 litre, tank and frame	\$630 to \$1,995
- 12V trailed	\$1,805 to \$2,945
- motorised trailer	\$3,450 to \$5,410
Wheel barrow sprayers, 50 to 120 litre	\$620 to \$2,685
Bike Tank - 5/13 litre per minute	\$695 to \$1,110/\$1,130 to \$1,170
Sled sprayer rigs, 450 to 1000 litre	\$1,195 to \$5,450
Linkage Booms 2m to 12m boom and 2 to 24 nozzles	\$230 to \$6,950

Macagri: Hardi Spraying Equipment

Sprayer for 4 Wheeled Motor Bikes, 100 litre capacity	\$931
Three point linkage sprayer	
400 litre tank, 6 metre boom, pump to suit	\$2,865
plus hosereel and spraygun	\$3,593
800 litre tank 10 metre boom, pump to suit	\$4,521
plus hosereel and spraygun	\$5,249
Precision sprayer 600 litre tank, 10 metre boom	\$4,947
Very Accurate and Safe Sprayer (three point linkage) -	
800 to 1200 litre tank, 12 to 24 metre boom, remote controlled	
from tractor cabin (electric and hydraulic controls)	\$14,040 to \$43,680
Trailer Sprayers	
1500 litre, 2400 litre, 3500 litre, 12 to 24 metre boom	\$30,024 to \$98,800
Pickup Sprayers for Utes, Trucks etc	
1000 litre tank; 12 metre boom	\$13,520
Orchard Sprayers - Pip Fruit	
2000 litre trailer with an 800 to 900 mm fan	\$20,800 to \$27,040

Handgun Sprayers/Wet Booms

Ag-Equipment Specialists:

Hurricane spray pack, including 250/500 litre spray tank, pump,
20 m hose, PTO driven, 33 to 48 litres per minute - \$2,395 to \$2,495

C-DAX:

Noble-Adams Machinery Ltd.:

Pressure nozzle booms for ATV's:

Wet Booms - 2 m/3 m \$225 to \$280
- budget fire-break boom \$298 to \$454
Vertical fold booms - 3 m/6 m, complete with breakaway \$379 to \$669
- Quick-Smart vertical fold boom \$535 to \$825

C.D.A. Booms for ATV's:

Low volume C.D.A. boom kits - single C.D.A./four C.D.A. atomiser boom kit
\$685 to \$2,295

ATV mounted Z-wiper - 2.2 m effective width \$699 to \$899

Trailed Z-wiper - 3.0 m effective width \$2,092 to \$2,218

U200 Series Sprayers (for ATV's, trailed, flatdecks and utes):

U200 spot sprayers - 200 litre \$895 to \$1,122

Trailer kit \$1,671 to \$1,982

Knapsack Sprayers

Croplands Equipment Ltd.:

Plastic Knapsack 15 litre \$155

Pump up sprayers 5 litre/7 litre \$59/\$65

Acto Agriculture New Zealand Ltd.:

Knapsack sprayer - 16 litre/20 litre \$106/\$110

Compression sprayer - 7.5 litre \$46.55

Trombone sprayer 5/20 litre \$43.20 to \$98.10

Waterblasters

Ag-Equipment Specialists:

Hurricane Complete, tractor driven,

250/500 litre - tanks 25.5 to 27.5 litres/minute \$2,950 to \$3,550

Tornado - Motorised 1750 - 3000 psi, 11 to 30 litres/minute \$2,195 to \$6,975

Electro-blast electric - 1400 - 3000 psi, 9 to 30 litres/minute \$1,750 to \$5,750

(single and three phase)

Croplands Equipment Co.:

Electric - Bravo pressure cleaner, 1500 psi, 8 litres per minute capacity \$780

- Blitz 11.09, 1375 psi, 11 litres per min \$1,100

Petrol - 5.5, 9, 11 HP Honda motorised, 11 to 15 litres per minute \$2,250 to \$3,995

- 180/220/330cc acme motorised, 8 to 15 litres per minute \$1,495 to \$2,950

Kanters Engineering & Machinery Ltd.:

220/550 litre complete with drive shaft	\$2,590
Petrol powered high pressure cleaners - 3.5/13HP, 10/21 litres/minute	\$1,350/\$3,950
High pressure hose reels, 60/100 m hose capacity	\$300/\$350

Greenhouse Sprayers

Kanters Engineering & Machinery Ltd.:

Low volume mist	- fully automatic	\$3,750
	- deluxe model, pneumatic adjustable height	\$4,250

2.20.8 Tractor Transport Trays

Giltrap Engineering:

	Tray Only	Complete
1.980 m x 1.220 m	\$940	\$1,210
2.130 m x 1.370 m	\$960	\$1,250

2.20.9 Front End Loaders

Duncan Industries Ltd:

Front end loader forks	1200 kg capacity	\$805
	1600 kg capacity	\$1,066
	Silabale (dual purpose)	\$2,390

Fairbrothers Industries Limited:

Heavy duty, single crowd front end loader, 40 - 90 HP		\$7,078
Heavy duty, twin crowd front end loader, 60 - 100 HP		\$7,825
Buckets	Single Crowd	Twin Crowd
	Heavy Duty	Heavy Duty
- 1200/4' - 0"/0.270 m ³	\$870	\$1,050
- 1500/5' - 0"/0.340 m ³	\$970	\$970
- 1800/6' - 0"/0.410 m ³	\$1,090	\$1,270
Pallet Fork	\$775	\$955
Round Bale Handler	\$910	\$1,090
Silage Fork - 5 tines	\$945	\$1,125
- 7 tines	\$1,085	\$1,265
Silage Grab	\$2,240	\$2,420
Grade Blade	\$940	\$1,120
Quick Hitch	\$780	\$960

Pearson Engineering Ltd.:

Buckets - 1.0 wide x 1.0 shell to 2.0 wide x 1.5 shell	\$550 to \$1,350
- 4 in 1 bucket 1.2 to 1.8 wide	\$3,395 to \$4,195
- fine chop silage teeth for buckets, 1.2 wide to 2.0 wide	\$355 to \$570
Forks -silage forks 1.0 wide x 6 tine to 1.5 wide x 9 tine	\$920 to \$1,390
- big bale/silage combo fork,1.2 wide x 6 tine	\$1,310 to \$1,430
-silage grab, 1.2 wide x 7 tine to 1.5 wide x 9 tine	\$2,485 to \$2,885
- silage shear grab, 1.2 wide x 0.62 cubic metres to 1.76 wide x 0.9 cubic metres	\$4,400 to \$5,500

- big bale silage grab, standard	\$2,075
- big bale fork, 1.2 wide x 2 tine	\$880
- wrapped bale clamp	\$1,985
- square bale grapple	\$2,400
- pallet fork, fixed/adjustable	\$795/\$1,465
- log fork, standard	\$975

Power Farming:

Skid Steer Loaders 14 to 47HP	\$29,900 to \$45,000
Backhoe Loaders 80 to 90HP	\$95,000 to \$134,000
Tractor Loaders 80HP	\$44,900 to \$49,900
96 to 106HP	\$78,500 to \$92,500

2.20.10 Trailers

Giltrap Engineering:

2 tonne tip trailer 2.75 x 1.83 deck	\$4,450
3 tonne tip trailer 2.75 x 2.3 deck	\$4,950
4.5 tonne tip trailer 3.2 x 2.3 deck	\$5,500
5 tonne tip trailer 3.65 x 2.3 deck	\$6,400
5 or 6 tonne tip trailer - on tandems	\$8,150/\$8,500
6 tonne tip trailer 3.65 x 2.4 deck	\$7,300
8 tonne tip trailer 4.4 x 2.3 - on tandems	\$12,000

2.20.11 Silage Wagons/Forage Harvesters/Maize Choppers

Silage Wagons

Giltrap Engineering: (freight included) add \$600 to \$800 to South Island purchases:

Front-centre Feed Wagons -	
PTO or hydraulic - 4.0/5.95 cu.m	\$9,650 to \$10,500
PTO/Hydraulic - 7.09 cu.m	\$11,960 to \$12,200
Super Hydraulic - 8.36 cu.m	\$12,600
Super Hydraulic/PTO - 9.18 cu.m	\$12,800 to \$13,050
Super Hydraulic/PTO (on tandems) 10.82 cu.m	\$16,800 to \$17,050
Super Hydraulic/PTO (on tandems) 13.28 cu.m	\$21,000 to \$21,300
Cross Conveyor models	
PTO or hydraulic -7.09/8.36 cu.m	\$14,500 to \$15,440
PTO or hydraulic (on tandems) - 10.82/13.28 cu.m	\$19,400 to \$24,100

Taege Manufacturing:

8.5 cubic metre, single axle, centre feed/side delivery	\$14,000 to \$16,800
tandem axle, centre feed/side delivery	\$16,200 to \$19,000
10.5 cubic metre, single axle, centre feed/side delivery	\$15,500 to \$18,300
tandem axle, centre feed/side delivery	\$17,700 to \$20,400
7/13.5/16 cubic metre silage wagons	POA
Front-centre Feed Wagons, 8/10.5 cu.m	\$12,100 to \$13,100
Tandem Axle extra/Side Delivery extra	\$2,300 to \$2,900

Tulloch:

Krone Titan loader wagon \$72,150

Forage Harvesters

Giltrap Engineering:

Front centre feed wagons, fast floor for harvesting

- 4 to 9.18 cubic metres, hydraulic or PTO \$9,650 to 413,050

- 10.82 to 13.28 cubic metres, on tandems, with optional rear floor drive kit for harvesting \$16,800 to \$2,2190

Cross conveyor models

- 7.09 to 8.36 cubic metres, hydraulic or PTO \$14,500 to \$15,440

- 10.82 to 13.28 cubic metres, on tandems, optional rear floor drive kit for harvesting \$19,400 to \$24,990

Precision-chop Forage Harvesters

Tulloch:

JF FCT800 / FCT 1100 \$39,300/\$56,850

Mengele SH40N 1.8 metre pickup, 90 to 150 HP \$83,230

Maize Choppers

Claas:

Single Row Maize Choppers Jaguar 35, 8mm lengths \$22,100

Jaguar 25, 5mm lengths \$14,690

PZ:

Maize chopper MH 90S single row \$14,990

Maize chopper MH 90S twin \$21,990

Maize chopper MH 180S double row \$34,990

Maize chopper MH 180SU double row reversible mounting \$43,990

Maize chopper MH 180S twin, four row drive backwards \$48,990

Silage/Hay Covers and Wraps

(see also Section 2.20.23)

Agpac Plastics Ltd:

Agtuf - extra wide, super tough polythene film

6 m x 40 m Black \$209

12 m x 25 m Black/White \$261

12 m x 50 m Black/White \$523

15 m x 30 m Black \$392

Agtuf - one piece silage covers Black/White \$1.85/square metre

Black Pre-packed Polythene Film 2m x 5m x 125µm/ 4m x 15m x 250µm \$6.30/\$44.50

White Polythene Film - 1m x 100m \$77 per roll

- 4m x 50m \$150 per roll

Agtuf - Round Bale wrap UV stabilised 500mm x 1500m - 25µm \$96.50 per roll

750mm x 1500m - 25µm \$144.70 per roll

Permathene Plastics Ltd:

Covers - Custom Made

125 micron - black	\$0.68 per square metre
250 micron - black	\$1.10 per square metre

Rondotex:

Round bale netting MX1000, red thread	\$350 per roll
25 rolls or more	\$327.50 per roll

Silotite:

Stretch film wrap - 500mm x 1800m x 25 μ - black/white	\$90/\$116 per roll
- 750mm x 1500m x 25 μ - black/white	\$141.50/\$148.50 per roll

(discount if buy in bulk i.e. per pellet, up to \$8 discount per roll)

Tulloch:

Flextube	\$124 to \$140 per tube
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Van Leer New Zealand Ltd.:

Silage Film - Black

125 μ x 5000mm x 50m	\$53 per roll
Tape - 96mm x 30m	\$6.95 per roll
- 72mm x 30m	\$5.00 per roll

Balewrap Systems Ltd.:

Balewrap plastic, 750 x 1500 x 25 micron, white	\$99.75
Netwrap - high UV treated/low UV treated	\$293.14/\$288.75
Silage covers - 12 m x 25 m x 200 micron, black/white	\$205.63

Silage/Hay Preserves

<i>PDQ Products:</i>	<u>Quantity</u>	<u>Price</u>
PDQ Silage Treet - treats 200 tonnes of silage,		
Soluble	400g	\$250
Ready to use powder	10 kg	\$30
PDQ Hay Treet - treats 260, 30 kg bales	16 kg	\$56
(20 to 30 cents per bale)		
Grandy Applicator - suitable for ready to use powder and Hay Treet		\$812.50
Moisture Tester		\$325

2.20.12 Grain Crusher/Mixer Mills/Feedout Equipment

Streamline Feeding Systems:

John Turner (freight included)

Junior all grain roller crusher, 100 mm roller, chain driven rollers, 18 litre hopper, ¼ HP	\$541
Senior all grain roller crusher, 1 HP	\$1,348
Hayway Chaff cutter - electric	\$2,461
- PTO	\$2,167

Tulloch:

Gehl MX125 mobile mixer mill	\$30,420
Gehl MX170 mobile mixer mill	\$36,400
Gehl RM125/170 roller mills	\$35,140/\$39,720

2.20.13 Fertiliser and Manure Spreaders and Topdressers

AgMark:

Spun Steel Hopper - Eurospand Models

SH 300 255 litre capacity (350kg), 6 to 12m spreading width	\$850
SH 400 350 litre capacity (426kg), 6 to 12m spreading width	\$900
SH 500 450 litre capacity (540kg), 6 to 12m spreading width	\$950

Polyethylene Hoppers -

B/S Broadspectrum Models - Spinner Spreaders

XL Series

XL400 385 litre capacity (460kg)	\$1,095
XL500 450 litre capacity (540kg)	\$1,150

Oscillating tube spreaders - P Series

P406 390 litre capacity (470kg) 6 to 20m spreading width	\$3,395
P556 540 litre capacity (650kg) 6 to 20m spreading width	\$3,695
P706 690 litre capacity (830kg) 6 to 20m spreading width	\$3,895
P906 890 litre capacity (1070kg) 6 to 20m spreading width	\$4,095
Hopper Cover	\$90 to \$140

Aitchison Industries:

Linkage mounted spinner spreaders - 400 to 1000 kg capacity	\$3,250 to \$3,950
A.T.V Trailed spreaders - 150 to 400 kg capacity	\$1,475 to \$1,995

Duncan Industries Ltd.:

T.H.S. Model 2000 (2 tonnes Super or 2.3/4 tonnes lime)	\$8,400
T.H.S. Model 3000 (3 tonnes Super or 4 tonnes lime)	\$9,125

Giltrap Engineering Ltd.:

Slurry Spreaders (3000 to 10000 litre tank)	\$14,200 to \$22,850
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Howard:

Smart Fertiliser spreaders SS/300 (400kg) to SS/500 (600kg)	\$777 to \$999
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Kuhn:

MDS701/921	\$5,860 to \$8,395
ZSB 900B/1100E	\$7,250 to \$7,560

Lely:

2400SL Centreliner, 1200kg hopper capacity	\$7,950
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Tulloch:

Gehl MS 250 tonne trailed box spreader	\$30,270
Gehl MS 315 tonne scavenger II manure spreader	\$44,210

Vicon:

PS 203 (200 litre/4cwt capacity)	\$2,895
PS 403 (400 litre/8cwt capacity)	\$3,995
PS 603 (600 litre/12cwt capacity)	\$4,682
BS 952H (950 litre/19cwt capacity)	\$9,990

2.20.14 Trucks and Utilities (Light Commercials)

Daihatsu:

Diesel Delta Trucks	
1.5 to 3.5 tonne 2WD with single or double cabs	\$27,111 to \$42,311
Feroza 4WD 5 speed - RV/EFi/EFi widetrack	\$29,324/\$31,102/\$32,444
Rocky 4WD - SWB 5 speed diesel/LWB turbo diesel	\$35,547/\$44,436
4WD SWB Feroza/Rocky 5 speed	\$29,324 to \$44,436

Ford:

Courier 2WD	\$23,945 to \$28,145
Courier 4WD	\$34,795 to \$40,995
Falcon Models Utilities (4 litres)	\$32,045 to \$37,645
Transit 2.5D	\$36,395 to \$46,795
Trader 1.25 to 2 tonne	\$31,495 to \$46,795

Holden (Blackwell Motors):

Holden VS Utility - 3.8 litre, V6, 5 speeds and automatics	\$29,396 to \$32,108
- 5 litre V8, automatic and 5 speed	\$34,908 to \$35,608
Holden Rodeo - 4 x 2 - 2.6 litre Petrol	\$24,671 to \$30,621
- 2.5 litre Diesel	\$25,878 to \$30,778
- 4 x 4 - 2.5 litre Diesel	\$34,191 to \$40,141
- 2.8 litre Turbo Diesel	\$43,466
Holden Jackaroo - 3.2 litre V6 Petrol, 5 speed/automatic	\$61,338/\$72,450
- 3.1 litre Turbo Diesel S/SE 5 speed	\$63,525/\$70,963

Lada:

Model 2121 1700cc Taiga 4WD dropside flatdeck \$25,895

Landrover (Archibalds):

Defender \$45,990 to \$64,990
Discovery \$75,990 to \$89,990
Range Rover \$119,990 to \$139,990

Mazda:

B2200 Cab Plus UTE W/S \$25,856
B2200 Cab Plus SE UTE W/S \$25,856
B2600i Double Cab UTE W/S# \$30,406
B2600i 4WD Cab Plus UTE W/S# \$34,694
B2200 Diesel UTE's \$22,269 to \$24,019
T3500 2 tonne/3.5 tonne \$32,769/\$35,120
T3500 2.0 tonne 4x4 \$41,563

Mitsubishi

L200 Petrol standard cab ute \$23,398
L200 Petrol double cab ute \$27,300 to \$41,860
L200 Diesel standard cab ute \$27,519 to \$36,531
L200 Diesel double cab ute \$31,010 to \$41,160
L300 Petrol SWB 4 door \$27,501 to \$42,341
L300 Petrol LWB 4 door \$30,931 to \$32,979
L300 Diesel SWB 4 door \$31,911 to \$36,549
L300 Diesel LWB 4 door \$32,979 to \$34,991
Pajero SWB \$53,550 to \$56,875
LWB \$67,025 to \$86,538

Nissan:

Navara Models - 2WD standard/cab diesel 2.7 \$29,750 to \$31,750
- 4WD standard/cab diesel 1.7 \$38,450 to \$40,350
- 2WD double/cab petrol \$31500 to \$41750
- 2WD double/cab diesel \$35540

Pathfinder Models -4WD 5 dr 3L \$66,250 to \$68,250
-4WD 5 dr 2.7L turbo diesel \$68,500 to \$73,750

Patrol Models -4WD Station Wagon - Diesel \$80,850 to \$83,850
- Petrol \$78,850 to \$81,850

Suzuki:

Vitara JX/JLX \$27,995 to \$37,329
Farmworker 4WD- wellside/flatdeck \$19,373/\$20,440

Toyota:

2WD Hi-Lux Petrol \$19467 to \$30356
Diesel \$26400 to \$33289

4WD Hi-Lux Petrol	\$38 667 to \$69333
Diesel	\$35644 to \$56889
Landcruiser petrol or diesel	\$54222 to \$115556
Landcruiser LWB petrol or diesel	\$52,888 to \$63,555

2.20.15 Cultivation Implements

Ploughs

Clough:

2000 TRI-LINE Series - auto reset	
4 to 6 Furrow (In-furrow)	\$15,958 to \$19,997
7 to 9 Furrow (On-land)	\$25,850 to \$30,596

1000 TRI-LINE Series - auto reset	
3 to 5 Furrow	\$7,020 to \$10,312

460 Disc Plough -	
2 to 3 Furrow	\$3,935 to \$4,850
4 to 5 Furrow	\$5,930 to \$7,090

Klough:

Multi Plough, Mounted Auto Reset, 3 to 5 furrow	\$7,353 to \$11,079
Multi Plough, Semi Mounted Auto Reset, 4 to 6 furrow	\$15,398 to \$20,349
Model 850 Mounted Plough, Shear Pin, 2 to 5 furrow	\$4,244 to \$7,722
Model 680 Quartz Plough, Semi-mounted, 4 to 8 furrow	\$12,480 to \$25,568
Quartz Vari Width - semi-mounted 4 to 8 furrow	\$14,187 to \$28,291
- mounted 2 to 5 furrow	\$5,408 to \$10,443
Model 830 Disc Plough 2 to 5 furrow	\$4,201 to \$7,560
Model 820 Golden Plough 1 to 3 furrow	\$976 to \$2,040
Massey Ferguson Plough 2 to 3 furrow	\$844 to \$1,263
494 H.D. Hydraulic Vari Width Auto Reset	
- fully Trailing, 4 to 6 furrow	\$27,000 to \$31,000
- semi Mounted, 4 to 7 furrow	\$19,500 to \$23,500
680 Quartz Shear Pin-Fully Trailing, 4 to 7 furrow	\$15,800 to \$27,300
660 Quartz Vari Width Shear Pin - Semi mounted, 4 to 8 furrow	\$13,512 to \$26,944

Speciality Machinery Ltd:

Agric Ploughs

Model TH3, 3 furrow Hydraulic Reversible Disc Plough	\$11,500
Model TH4, 4 furrow Hydraulic Reversible Disc Plough	\$16,700
Model TH4, 6 furrow Hydraulic Reversible Disc Plough	\$22,600

Tulloch:

Kverneland veri-width plough BB5/100	\$29,800
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Chisel Ploughs and Subsoilers

Aitchison:

Soil Aerator:		<u>1 tine</u>	<u>2 tine</u>
Subtill Earthquaker - straight leg		\$1,348	\$1,871
- parabolic leg		\$1,373	\$1,921
- chisel plow leg		\$1,345	\$1,865
- straight leg and disc coulter		\$1,658	\$2,491
- parabolic leg and disc coulter		\$1,683	\$2,541

Chisel Plow:	<u>7 tines</u>	<u>9 tines</u>	<u>11 tines</u>
- Parabolic leg	\$5,636	\$6,73	\$7,828
- Chisel Plow leg	\$5,440	\$6,48	\$7,520

Chisel Plow coupled with Easyflow Cultivator;

1.83m/2.44m (3/4/5 tines)	\$7,122/\$7,670/\$8,218
2.44m/3.05m (5/7/9 tines)	\$8,886/\$9,982/\$11,078
3.05m/3.66m (7/9/11 tines)	\$11,056/\$12,152/\$13,248

Clough:

950 Goliath Chisel plough/cultivator - 7 tine (2.7 m) to 15 tine (4.3 m)	\$6,575 to \$9,610
960 3 Row Ridger	\$3,020
300 Panaerator sub tillage plough 3 to 7 legs (with coulters and roller crumbler)	\$5,535 to \$9,990

Howard:

CP 165, 5 tine	\$2,998
CP 300, 9 tine	\$6,031
Paraplow - 1100 Series 3 leg standard legs and disc assembly	\$7,506

Klough:

460 Mole Plough	\$1,643
980 Chisel Plough/Panbuster, 3 to 11 tine	\$3,872 to \$9,955
980 Panbuster Auto Reset, 3 to 11 tine	\$5,719 to \$17,400
Excel Soil Aerator - 3/4/5 leg Standard, with coulters or with coulters and roller	\$3,802 to \$8,494

Discs

D. Cosgrove:

Cosgrove Trailing Disc - 32 and 36 blade	\$11,870 to \$13,290
Reid and Grey Tandem Discs - 2.7 m and 3.04 m	\$6,500 to \$6,910

Duncan:

800 Mounted Disc 7'	\$6,416 to \$6,460
800 Mounted Disc 8' to 9'	\$6,546 to \$7,205

Cultivators

Aitchison:

	<u>With Crumbler Roller</u>	<u>Without Crumbler Roller</u>
Wideline Foldup Cultivator - 4.3m/6.2 m (43/61 tine)	\$7,141/\$9,107	\$6,356/\$7,857
Easyflow cultivators - 1.83m/3.66m (18/36 tine)	\$1,867/\$3,820	-
Easyflow wideline trailed cultivators - 5.65m/6.85m (56/68 tine)	\$16,356/\$17,392	-

Superflow Heavy Cultivators

2 Bar Frame

Subsoiler	1.7m/1.98m	1 to 3 tines	\$1,985/\$4,716
Lo-Draft	1.98m/2.44m	3 to 7 tines	\$2,955/\$6,095
Cushion	1.98m/2.44m	3 to 7 tines	\$2,991/\$6,200

3 Bar Frame

Lo-Draft	1.98m/3.05m	5 to 11 tines	\$4,550/\$9,560
Cushion	1.98m/3.05m	5 to 11 tines	\$4,610/\$9,692
Depth wheel per pair			\$858

Clough:

Standard Frame 925 Mini-Till Models -

	<u>With Crumbler</u>	<u>Without Crumbler</u>
1.6m to 2.6m, 13 to 19 tine	\$1,995 to \$2,320	\$1,395 to \$1,580
Helper Tines - extra \$14.96		
923 Wide Line Trailing Maxi-Till		
5.5m to 8.8m, 54 and 82 tine	\$16,900 to \$19,456	\$13,811 to \$15,990
920 Mounted Maxi-Till Standard Models		
2.53m to 4.13m , 22 and 38 tine	\$2,695 to \$3,643	-
929 Contura - Foldup mounted Maxi-till		
4.25m to 5.6m, 42 to 56 tine, comes with crumbler		\$6,775 to \$7,695

Klough:

"S" Tine Cultivators:

	<u>With Crumbler</u>	<u>Without Crumbler</u>
925 Mini-Till: 1.6 m (13 tine)	\$2,107	\$1,464
2.1 m (17 tine)	\$2,316	\$1,596
920 Maxi-Till: 2.4 to 4.1 m (23/38 tine)	\$3,039 to \$3,969	\$2,262 to \$3,005

	<u>Price</u>
203 Centre Fold Maxi-Till, 4.26 to 6.1m (41 to 59 tine)	\$6,850 to \$8,170
295 Maxi-Till, 2.4m to 3m (24 to 30 tine)	\$2,650 to \$2,850
923 Fully Trailed Maxi-Till, 5.5m to 8.8m	\$17,249 to \$19,935
906 Fully Trailing Coil Tine Grubber, 4.9 to 6.1 m (27 to 35 tine)	\$13,125 to \$14,437
904 Double Bar Coil Tine Cultivator, (13 to 19 tine)	\$3,663 to \$4,833

Kuhn:

Culti-Share RG3001 packer,roller	\$39,640
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Speciality Machinery: (Marton)

Rolling Cultivator

4 x 3,4,5 spider gangs for 0.50 to 1.12 m rows	\$4,852 to \$5,500
8 x 3,4,5 spider gangs for 0.50 to 1.12 m rows	\$9,600 to \$10,800
Ridge Runner	
4 x 3,4 disc gangs	\$5,227 to \$5,715
8 x 3,4 disc gangs	\$9,909 to \$10,885

Striuk:

Inter-row cultivator - individual row elements 3-5 row	\$18,430 to \$28,870
- iner-row power rotary hiller 2-4 row	\$16,985 to \$25,570
Moulding Cultivators - 165 2 x 75cm without wheels	\$5,895
- 320 4 x 75cm with wheels	\$8,900
- 380 4 x 90cm with wheels, 5 cultivator tines	\$11,850

Tulloch:

KroneTRS121/300 rotary soil cultivator	\$22,950
Vaderstad NZG-600 LB trailed folding cultivator	\$30,910

Tine Cultivators

Clough:

940 Agri-tiller Coil Tine Cultivator		<u>With</u>	<u>Without</u>
		<u>Crumbler</u>	<u>Crumbler</u>
2.06 m	9 tine	\$3,497	\$2,703
2.50 m	11 tine	\$4,105	\$3,017
2.96 m	13 tine	\$4,585	\$3,440
3.40 m	15 tine	\$5,020	\$3,840
3.86 m	17 tine	\$5,450	\$4,282

Howard:

STCL/5	L/D 5 tine 1.10m	\$1,409
STCM/7	M/D 7 tine 1.75m	\$2,021
STCM/9	M/D 9 tine 2.25m	\$2,476
STCM/9R	M/D 9 tine 2.25m	\$2,724
STCM/11R	M/D 11 tine 2.59m	\$3,349
STCM/13R	M/D 13 tine 3.10m	\$3,690

Rotary Hoes

Howard:

FALC rotary hoes - For tractors up to 65HP	\$6,995
- For tractors up to 80HP	\$8,295 to \$8,995
- For tractors up to 100HP	\$10,495 to \$13,295

Masport:

Rotahoe 3, width 460mm, 2.6kw	\$874.13
Rotahoe 4, width 610mm, 3.75kw	\$1,023.75
Bolens Tuffy, width 360mm, 2.25kw	\$1,273.13
Bolens Pony, width 460mm, 3.75kw	\$2,183.13
Bolens Horse, width 500mm, 6kw	\$3,062.50

Power Harrows

Belrecolt:

Crumbler roller, leveller - HRB 252 D	\$17,995
- HRB 302 D	\$19,840

Howard:

HK20 - for tractors up to 100HP	\$10,793 to \$16,460
HK30 - for tractors up to 140HP	\$21,360
Superfox - for tractors up to 200HP	\$21,072 to \$22,593
Magnum - for tractors up to 240HP	\$28,515 to \$59,327

Kuhn:

HR Series models -	
Crumbler, Roller, Levellers	\$21,940 to \$30,295
Packer, Roller, Leveller	\$24,250 to \$32,250

Lely:

Rotary Power Harrows:	
2.5m, 100HP to 3.5m, 140HP	\$15,400 to \$21,500
3m, 210HP to 6m, 275HP	\$21,750 to \$63,500

Harrows

Lyndon Harrows:

- "Lyndon" chain harrow
 - 1.5 to 4.2 m width - 10/12 mm sq. \$410 to \$1,095
 - 2.4 to 4.2 m width - 16 mm sq. \$1,395 to \$2,095
- Spiked chain harrows
 - 12 mm round, 6 x 6 to 12 x 8 \$570 to \$1,450
 - 16 mm round, 8 x 8 to 14 x 8 \$1,330 to \$2,150
 - 20 mm round, 8 x 8 to 14 x 8 \$2,150 to \$4,420
- Tripod and 'Lyndon' chain harrows
 - 10/12 mm sq. chain, 2.4 to 4.2 m \$1,740 to \$3,085
 - 16 mm sq. chain, 3.0 to 4.2 m \$3,005 to \$4,085

● Standard models	2.4 m	3 m	3.7 m
12 mm round and 10 mm square	\$900	\$1,120	\$1,345
12 mm round and 12 mm square	\$1,090	\$1,265	\$1,515
16 mm round and 12 mm square	\$1,365	\$1,605	\$1,885
16 mm round and 16 mm square	\$2,060	\$2,415	\$2,775
● Round ring chain harrow			
12 mm round, 8 x 3 to 12 x 3		\$435 to \$575	
16 mm round, 8 x 6 to 12 x 6		\$825 to \$1,070	
20 mm round, 8 x 8 to 14 x 8		\$1,945 to \$3,175	
● Round ring contractor's harrow			
24 mm round material, 8 x 8 to 14 x 8		\$2,330 to \$4,030	
● Utility harrows			
10 to 16 mm diameter, round, 2.1 to 4.2 m		\$345 to \$850	
● Pea Harrows			
4 row/5 row	\$170 (bar \$185) to \$180 per leaf		
● Potato harrow		\$170 per leaf, bar \$185	
● Drill harrows			
Light weight 10 kg leaf 30 x 5 flat			
4/3 row per leaf		\$135 to \$105	
Bars		\$135 to \$155	
3.5 m wide (suit 20 run drill)/3.2 m wide (suit 18 run drill)		\$675 to \$645	
Medium weight 18 kg leaf 32 x 8 flat and Heavy weight 22 kg 30 x 10 flat			
4 row \$152 per leaf, suit 20 run drill		\$760	
3 row \$115 per leaf, suit 18 run drill		\$725	
Bars		\$140 to \$165	
Medium or heavy weight			
4 row/3 row per leaf		\$162/\$130	
Standard bar		\$162	
● Stump jump rakers			
4 row wide, 3/4 deep, 30/40 kg per leaf, 40 x 10 flat		\$195/\$240	
40 x 10 flat, 53 kg heavy rakers/50 x 10 flat,			
63 kg super heavy rakers		\$285/\$320 per leaf	
Draw bar, 3/4/5 leaf		\$285/\$315/\$350	
● Diamond harrows			
16 mm tine/20 mm tine		\$245 to \$280	
● Zig zag harrows, high tensile tines			
35 kg 16 mm tine/45 kg 20 mm tine		\$230 to \$265	
Bars - 3/4/5/ leaf		\$260/\$300/\$340	
3.1 m, 3 leaf and bar 16 mm/20 mm		\$950/\$1,055	
4.05 m, 4 leaf and bar 16 mm/20 mm		\$1,220/\$1,360	
5.05 m, 5 leaf and bar 16 mm/20 mm		\$1,490/\$1,665	

Mechanical Weeders

Howard:

Gaspardo inter-row weeder/side dresser

HL 780 5M/P 6 - Row rigid toolbar, plate protection \$11,116

HL 780 5M/D 6 - Row rigid toolbar, disc protection \$12,720

Lely:

Weeders 4.5 m to 7 m \$5,650 to \$9,800

Rollers - Cambridge Rollers

Aitchison:

Rolling Width - 2.4/3.0/3.6 m \$3,560/\$3,960/\$4,260

Austins Foundry Limited:

Cambridge Rollers \$3500

Tulloch:

Vaderstad RX-620 SJLB folding cambridge roller \$30,640

Field Rollers

Duncan:

300 Field Roller

2.48m to 3.0m (8' to 10') Standard Rings (630 mm/26") \$4,480 to \$5,530

2.48m to 3.0m (8' to 10') Deep 'V' Rings \$5,020 to \$6,100

Heavy Rollers

Water Ballast Heavy Rollers from \$8,000 to \$16,000

2.20.16 Cultivation Accessories

Klough Group:

Plough Parts -

Share 30 cm (steel) \$35.00

Share 36 cm (steel) \$37.00

Share 41 cm (steel) \$38.00

Share 30 cm (SG) \$32.00

Share 36 cm (SG) \$26.00

Mouldboard 36 cm bolted GP/AP \$194

Mouldboard 850 multi-purpose \$204

Maxi Till Points \$2.60

Maxi Till Tine (bare)

Mole Plough -Main Blade \$374.86

-Plug 6.4 to 10.2 cm \$67.75 to \$79.40

-Point \$68.25

Front Brackets -F/B 3-4 FRW 36 cm \$200.70

-F/B 3-4 FRW 36 cm HD \$206.20

-F/B 3-4 FRW 41 cm \$201.35

-F/B 5-6 FRW 36 cm \$249.85

2.20.17 Planting Implements

Drills and Seed Boxes

Aitchison Industries: (freight included).

Seedmatic 3000 Seed only Tine Drills		
-12 to 20 row-tine only	(1.8 to 3.0m)	\$9,985 to \$11,675
-12 to 20 row-tine and disc coulters	(1.8 to 3.0m)	\$12,717 to \$15,895
-12 to 20 row-tine trailed only	(1.8 to 3.0m)	\$13,481 to \$15,171
-12 to 20 row-tine and disc coulters trailed	(1.8 to 3.0m)	\$16,213 to \$19,391
Seedmatic 3100 Seed and Fertiliser Drills		
-12 to 20 row-tine only	(1.8 to 3.0m)	\$11,999 to \$14,465
-12 to 20 row-tine and disc coulters	(1.8 to 3.0m)	\$14,331 to \$18,285
-12 to 20 row-tine trailed only	(1.8 to 3.0m)	\$15,045 to \$17,511
-12 to 20 row-tine and disc coulters trailed	(1.8 to 3.0m)	\$17,361 to \$21,331
Seedking 1400 Arable Drill - 18 to 24 row		\$17,862 to \$21,142
Roller Drill - 16 to 24 row		\$4,523 to \$6,959

Austins Foundry Ltd:

Roller Seed Drills		\$10,500
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Duncan:

712 Agvance -		
15 to 23 Run Hoe Coulters		\$15,481 to \$18,700
15 to 19 Run Double Disc Coulters		\$17,840 to \$20,300
760 Till Seed -		
11 Run with seed box and disc openers		\$11,705
15 Run with seed box and disc openers		\$13,785
Enviro multi seeder		\$36,950
15 run triple disc		\$39,575
734 Multi-Seeder -		
15 to 23 Run Triple Disc Standard		\$25,205 to \$34,200
Eclipse Sowing Box 15 to 13 Run Front/Rear		\$2,630 to \$3,310

Howard:

Maize Drills 4 to 6 row		\$17,319 to \$36,864
Vegetable Seed drill - SV 290 4 row complete drill		\$15,610
- SV 260 twin 4 row complete drill		\$32,370

Lely: Polymat pneumatic drill

300-24N	3 m width	\$25,100
400-32N	4 m width	\$33,400

Tulloch:

Air Seed Drill	
Accord Pneumatic: 4.5m working width, 32 coulters - seed only	\$28,480
Vaderstad NZC-600 concord pneumatic seed drill	\$98,500

Precision Drills

Howard:

Punched Belt Models - 2 row to 6 row drill	\$4,600 to \$17,037
Singulaire Pneumatic Models - 4 to 12 row	\$28,678 to \$66,729

Specialty Machinery Ltd:

Hand Push Seeder	\$1,300
Tractor Mounted Seeder 1 row	\$1,600
c/w floating cradle, 2 row	\$2,920
hitch, tool bar and stands 4 row	\$5,560

Tulloch:

Accord Optima 4 row pneumatic precision seed drill	\$32,770
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Transplanters

Aitchison Industries:

152mm to 304mm diameter, adjustable from 0.43m to 0.61m long, replaceable cutter and tungsten carbide breaker tip	\$140 to \$180
38 cm extensions to fit all above	\$62.90

Farmrite Industries Ltd:

Grimme: Potato Planters

VL20E, 2 row cup planter, 3 point linkage, 450 kg seed hopper	\$13,500
VL20B, 2 row cup planter, 3 point linkage, 1200 kg seed hopper	\$19,900
VL20 KLZ, 4 row trailed planter, 2500 kg tipping seed hopper	\$35,500

Lannen Plant Systems:

(prices ex. Christchurch/Auckland)

RT-2 Transplanters Two Row	\$11,700
Optional extras - Second toolbar	\$420
- Land compression rollers	\$550
Three row automatic transplanters	\$50,000

Specialty Machinery Ltd:

Model 22C-D 10 Pocket disc 1 row	\$2,900
15 cm to 51 cm plant spacing 2 row	\$5,550
"High speed cell metering" Transplanter 1 row	\$6,406
2 row	\$12,582

2.20.18 Harvesting Equipment

Lifters, Diggers and Harvesters

Farmrite Industries Ltd:

Grimme Potato Harvesters -

Dominator SE70/20 single row harvester, 2.2 tonne bunker	\$93,450
SE75/30 high capacity single row harvester, 3.5 tonne bunker	\$109,750
SE75/40 high capacity single row harvester, 4.5 tonne bunker	\$116,750
Variant DL 1700 two row harvester	\$127,750
All rounder GB1700	\$164,000
Jumbo DR1500 4.8 tonne bunker	\$173,750

Specialty Machinery Ltd:

ASA-LIFT: - for a wide range of vegetables, flowers and bulbs.

Hydraulic Combi Harvesters -

Carrot harvesters from approximately	\$39,000
Leek harvesters from approximately	\$38,500
Beetroot harvesters from approximately	\$39,500
Potato harvesters from approximately	\$35,000
Onion harvesters from approximately	\$42,000
Green Bean harvesters from approximately	\$56,000

Windrowers

Farmrite Industries Ltd.:

Grimme RL1500	\$45,750
RL3600	POA
Grimme Combi star CS1500/CS1700	\$83,000/\$90,000

Lely:

Lotus Tedder/Windrowers:

300 Combi, 2 Rake Wheels, 3m working width	\$5,250
380 Superzip Combi, 3.8 m working width	\$7,850
600 Stabilo Combi, 6m working width	\$14,250

Combine Harvesters

Farmrite Industries Ltd:

Claas 202 Mega, 160 HP	\$180,000
Claas 204 Mega, 200 HP	\$220,000

Potato Planters

Farmrite Industries Ltd.:

Grimme Potato Planter 1995 VL20E 2 row cup planter	\$13,500
VL20B 2 row cup planter	\$19,900
VL20KLZ 4 row trailed planter	\$35,500
Structural Belt Potato planters - 2 row tipping hopper model (850kg hopper)	\$29,800
- 2 row trailing model (1500kg hopper)	\$35,760
- 4 row tipping hopper model	\$58,500

2.20.19 Farm Bulldozers

Gough Gough and Hamer:

Caterpillar range

Track Type Tractor - D3CIII/D4C11

\$150,020/\$184,850

Series Track Type Tractor - D4HXL/D5HIII/D6HIII

\$197,990/\$266,430/\$369,285

2.20.20 Lift Trucks/ Forklifts/ Pallet Trucks

For orchard, cool store and general lifting work.

Gough, Gough & Hamer Ltd.:

Hyster Lift Trucks (Lift Heights from 3.8m to 7.0m)

Side shift and Fork options, Prices include all standard equipment.

Petrol/Diesel

1.5 tonne to 3.0 tonne

\$27,000 to \$41,000

4.0 tonne/5.0 tonne

\$49,000/\$68,000

Hyster Electric (Cold Store Application)

1.5 tonne

\$42,000 to \$46,000

2.5 tonne/3.0 tonne

\$49,000/\$63,000

Quin-Baleboys Ltd.:

	Lift Height	Lift Capacity	
1 Stage	1.8m	1000 kg	\$2,650
2 Stage	1.5m	750 to 1250 kg	\$2,800 to \$3,200
	1.9m	1500 to 2000 kg	\$4,000 to \$5,300
	2.0/2.4m	450/750 kg	\$1,990/\$2,950
	3.0m	1250, 1500, 2000 kg	\$3,800/\$4,300/\$5,750
3 Stage	2.59m	1000 to 1250 kg	\$4,350 to \$4,800
4 Stage	2.59m	1000 kg	\$5,750

Options available:

Sideshift (fitted to forklift, includes hydraulic hoses and couplers) \$1,260

Front Mounting \$2,350

Bin Tipper - tips 150 degrees \$2,650

Bucket Attachment \$1,875

Bin/Pallet Forks (1500 kg) \$570

Shortened top and bottom link arms - Cat I/Cat II \$280/\$310

Double Acting Top Link - Cat I/CatII \$310/\$320

D/A Top link hoses \$80

2.20.21 Other Farm/Orchard Equipment

See also *Section 2.19.6*, fencing equipment.

Skid Loaders

Tulloch Gehl:

SL3310, 1.4 m bucket, petrol, operating capacity 340.5kg \$26,800

SL4625, 4 in 1 bucket, diesel, operating capacity 607kg \$46,620

SL5625, 4 in 1 bucket, diesel, operating capacity 772kg \$54,900

SL6625, 4 in 1 bucket, diesel, operating capacity 923kg \$59,910

Spray Tanks

Ribtec:

690 litre	\$680
1138 litre	\$950
1200 litre	\$950
2200 litre	\$1500

Mulchers

Howard:

FALC Alce mulchers for tractors up to 90HP	\$7,289
FALC Super Alce for tractors up to 140HP	\$18,443 to \$24,031

Chainsaws

Foster Chainsaws:

<i>Stihl:</i>	Bar Size (inch)	Price
009-36cc	16	\$433
E14-electric	14	\$638
025	16	\$783
039	20	\$1,133
064	20	\$1,571
090	30	\$2,683

McCulloch:

32cc/35cc	14"/16"	\$325 to \$497
38cc/60cc	18"/20"	\$542 to \$764
70cc/82cc	20"/24"	\$836 to \$1,288

Russell Thomas Engineers:

<i>Sachs-Dolmar</i>	Bar Size	
33cc/43cc	14"/15"	\$684 to \$938
51cc/52cc/60cc/68cc	15"/18"/21"	\$1,056 to \$1,412
85cc/95cc	24"/29"	\$1,857 to \$1,919
Electric 1600 watts	14"	\$413

Brushcutters/Trimmers

Russell Thomas Engineers:

McCulloch Brushcutter 32cc bent/straight shaft	\$319 to \$559
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Solo Brushcutters: (1995 prices)

124	25cc	4-tooth mowing blade	\$595
126	25cc	4-tooth grass blade	\$660
128	25cc	Anti-vibration system	\$750
134	34cc	supplied with all accessories	\$889
140	40cc	supplied with all accessories	\$998

Hydraldas

Stortford Machinery:

Hydralda

from \$13,000

Portable Generators and Welders

Lincoln Electric:

Tractapac (basic)

\$1,980

Trailer for Tractapac

\$1,236

Weldanpower 175/225 petrol

\$3,550/\$5,554

Weldanpower 300 diesel (silenced)

\$12,345

Suzuki:

SX750

\$884

SE800A/3000A

\$1,213/\$2,496

SV2200P/4000P

\$1,702/\$2,662

Ladders

Alco:

AC4 to AC10 Combination ladder - 1.2-2m to 3-5.5m

\$189.58 to \$414.16

ACFM8 2.44-4.4m

\$341.72

ASL aluminium single or pole ladders 2.4 to 6.6m

\$187.40 to \$488.60

APL aluminium platform ladder 0.87m

\$239.36

AEL Trademaster commercial heavy duty aluminium double extension ladders

- 3.1-5.2m to 6.7-11.8m

\$423.50 to \$1,028.32

AEH Homemaster aluminium double extension ladders

- 2.5-4m to 3.73-6.23m

\$380.62 to \$485.02

AHP heavy duty aluminium platform step ladders 2.4 to 5.4m

\$656.67 to \$1,399.95

AFP Aluminium forest pruning ladders 1.8 to 4.8m

\$193.69 to \$401.58

AMP aluminium mobile platform ladder - platform height 1.16 to 2.84m

\$1,236.18 to \$2,140.09

AHS heavy duty aluminium step ladders 3.6 to 5.4m

\$785.80 to \$1,258.23

Pruning Equipment

Brushmate pruning saw

\$58

Lopping Shears

\$172.90

Husqvarna medium brushcutter

\$650

Pasture Probes

Mosaic Systems Ltd:

Standard Model, 300/600 mm sensing shaft

\$1,660/\$1,883

Price includes complete unit, ready for use: meter, shaft, charger, 1 battery pack, wax, manual.

Professional Model, 300/600 mm sensing shaft

\$2,340/\$2,567

Price includes complete unit, ready for use: meter, shaft, charger, 1 battery pack, wax, manual, extended memory, 1 Com's cable, software (SW1, SW2).

Chains

Ancra N.Z. Ltd: 8mm to 10mm with slip and grab hook \$103 to \$122

Effluent Pond Stirrer

Williams Engineering: (including wheels) \$3,240

Stump Chipper

Williams Engineering: Tractor Driven Stump Chipper \$17,500

2.20.22 Safety Equipment

Croplands Equipment Ltd:

Sundstrom SR90 mask and filter kit with storage box \$180

Kasco spray helmet \$890

Breathalon spray suit \$175

Arbin tractor filters \$1,065

N.Z. Safety Limited:

Overalls \$36

Overtrousers PVC \$37.95

Coveralls Breathalon \$169.95

Coveralls PVC \$109

Coveralls Tyvek \$18.79

Earmuffs - grade 4 \$12.10

Antifog Goggles \$12.24

Glove Nitrile Fabric \$10.40

Glove PVC \$3.04

Mask Dust Moldex 1100 \$0.56

Mask 1100 Consumer \$3.06

Overalls Bib \$54.95

Parka PVC \$63.00

Mask \$48.30

Boots \$66.84

Gumboots \$41.49

Browguard \$26.60

Fire Extinguishers:

N.Z. Safety Limited:

Alsafe- stored pressure dry chemical

1.0 kg/2.0 kg \$68/\$89

3.0 kg/4.5 kg \$110/\$143

6.0 kg/9.0 kg \$153/\$174

2.20.23 Protection (Crop)

Electro-Tek Engineering Ltd:

Birdscarer Gun Zon Export	- complete unit	\$898
	- gun only	\$453
	- timer only	\$302
	- tripod	\$143

Fruitfed Supplies Ltd:

Frost Alarm		\$146
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Donaghy's:

Birdnetting:

Birdtex 5 m x 100 m to 10 m x 200 m		\$333.50 to \$667
Birdtex GP20 5 m x 300 m to GP16 5m x 300 m		\$525 to \$560

Hailnet:

Super Hailtex 6.5 m x 100 m		\$580
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Permathene Plastics Ltd.:

Birdnetting	- 4.27 m x 50 m	\$84
Marix frost protection	- 1.9 m x 100 m	\$102
	- 3.76 x 91.4 m	\$208

Tarpaulins

Straitline Canvas:

Hay Covers	- cambicon (50 sq. metres)	\$10.80 per square metre
Trucks	- cambicon	\$10.80 per square metre
	- PVC	\$17.50 per square metre

Load Binders

Ancra N.Z. Ltd:

Loadbinder 50mm, 2000 kg capacity including ratchet		\$35.00
PWB Uni-Drag chain kit 8mm to 10mm, with slip hook and grab hook		\$103 to \$122

2.21 BUILDINGS AND STRUCTURES

2.21.1 Building Permit Charges

The Building Industry Authority Levy:

The rate of the levy is \$0.65 for every \$1000 (or part thereof) 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 \$21.00 (not \$1.00) will be charged.

The Building Industry Authority Levy is a different levy from the Building Research Levy which is also chargeable on building consents for building work with an estimated value of greater than \$20,000.

The levy rate is reviewed annually and can be decreased by regulation. It can only be increased by an amendment to the Building Act 1991.

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.

Cost of Shed (excluding milking equipment)

Herringbone Shed Costs for building under full contract, range from approximately \$4,000 to \$5,500 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	\$5400 per bail
Site preparation and power	\$530 per bail
Effluent disposal	\$400 per bail
Total cost	\$6330 per bail

Rotary Turnstyle Costs for complete dairies which involve all buildings, platform and yards are generally in the range of \$5,000 to \$7,000 per bail.

Building cost estimates: (depends on type of material used)

Building (roof, walls and facility rooms)	\$850 to \$1450 per bail
Building floor and foundations	\$720 per bail
Milkroom/outside silo	\$250 to \$450 per bail
Electrician/Plumber	\$545 per bail
Yard concrete (based on ten cows per bail)	\$530 per bail
Yard pipework (based on ten cows per bail)	\$360 per bail

Complete Sheds: (including equipment)
Alfa Laval Agri New Zealand Ltd. (Turn-Styles):

Average Project Costs:

<u>Platform</u>	28	32	36	40	50	60
<u>Size:</u>						
Building:	\$70,000/ \$100,000	\$80,000/ \$105,000	\$84,000/ \$110,000	\$88,000/ \$115,000	\$95,000/ \$135,000	\$105,000/ \$145,000
Yard Concrete:	\$15,000/ \$17,000	\$16,500/ \$18,000	\$19,000/ \$20,000	\$20,500/ \$22,500	\$26,000/ \$28,000	\$31,000/ \$34,000
Yard Pipe Work:	\$11,000/ \$12,000	\$11,000/ \$13,000	\$13,000/ \$15,000	\$14,500/ \$16,500	\$18,000/ \$20,000	\$22,000/ \$24,000
Electrical:	\$9,000/ \$14,000	\$10,000/ \$15,000	\$11,000/ \$16,000	\$12,000/ \$17,000	\$12,000/ \$17,000	\$13,000/ \$20,000
Plumbing:	\$5,000/ \$9,000	\$6,000/ \$10,000	\$6,000/ \$10,000	\$7,000/ \$11,000	\$7,000/ \$11,000	\$8,000/ \$12,000
Platform:	\$46,500/ \$57,000	\$52,500/ \$64,000	\$51,500/ \$71,000	\$56,500/ \$78,000	\$67,000/ \$95,500	\$77,500/ \$113,000
Milking Equipment:	\$42,000/ \$64,000	\$48,000/ \$74,000	\$54,000/ \$83,000	\$60,000/ \$92,000	\$75,000/ \$115,000	\$90,000/ \$138,000
TOTAL	\$199,000/ \$273,000	\$224,000/ \$299,000	\$238,500/ \$325,000	\$258,500/ \$352,000	\$300,000/ \$421,500	\$346,500/ \$486,000
PER BAIL	\$7,107/ \$9,750	\$7,000/ \$9,344	\$6,625/ \$9,028	\$6,462/ \$8,800	\$6,000/ \$8,430	\$5,775/ \$8,100

Note: Not included: - Site preparation
 - All weather access to site
 - Water supply to site
 - Power supply to site
 - Effluent disposal from site

A specific example of the cost of construction of a 50 bail Rotary shed in 1996 (Canterbury) is as follows:

Complete building (includes pumps etc.) \$7,600 to \$8,200 per bail
 This includes everything except the power to the site (all other electrical work included), earthworks and a deep well, if required.

Milking Equipment

(See also Section 2.3.12, *Dairy Shed Expenses*)

Costs for milking equipment range from approximately \$1,500 to \$3,000 per bail (some fully automated equipment costs more).

Alfa-Laval:

Complete milking plant, from cluster to delivery line including jetter wash system but excluding water heaters, plumbing and electrical.

	<u>\$ per cluster</u>
Standard	\$1,600
Hiflo specification	\$1,800
Harmony Milking Unit	\$2,200

2.21.3 Woolsheds/Covered Yards/Dips

C. & F. Industries:

Crossflo Woolshed -	
Standard 3 Stand	\$44,527
Each Additional Shearing Stand	\$3,793
Each Additional Woolroom Bay	\$3,873
Each Additional Yard Bay	\$3,567
Raised Board	\$1,053

Calder Stewart Industries Ltd:

Woolsheds typically cost \$230 to \$280 per square metre to erect. Covered yards (building component only - not including cost of yards) cost \$50 to \$60 per square metre.

Sheep Dips

Croplands

Sheep dip unit;	
- sheep dip complete with frame, sump and plumbing	\$3500
- sheep dip complete with frame etc., and AR150 pump	\$3500
Sheep jetting kit	
- 5.5hp, high pressure diaphragm pump, hoses, fittings and one handpiece	\$1900

Ribtec:

6 metres long	(N.I.) \$1,956
6 metres long (1.7m deep)	(S.I.) \$2,223

2.21.4 Yards and Ramps

Sheep: Price varies markedly depending mainly on capacity. Yards with 1000 ewe capacity about \$9,500; 5000 ewe capacity about \$22,000.

Cattle: Price varies markedly with capacity and design (number of gates etc). Yards with a 50 head capacity at least \$5,500 (through to \$40,000 for 500 head).

Mothing Pens

Calder Stewart:

4 Bay \$740

Portable Yards

Prattley Engineering:

Prices are for South Island (freight paid to nearest rail terminal); North Island prices are slightly higher than South Island listed below.

Sheep Yards:

3 point link yard	\$4,136
3 m mobil yard	\$9,454
3 m super yard	\$12,388
4.2 m super yard	\$21,629
4.9 m super yard	\$24,262
Single lane race	\$1,272 to \$1,827
Double lane race	\$2,575 to \$3,419
Drafting race	\$1,119

Cattle Yards:

Cattle gate - standard	\$272
- swinging	\$336
- sliding race gate	\$458

Cattle Headbail \$709 to \$1,624

Cattle Crush \$3,539 to \$9,021

Loading Ramps

Prattley Engineering

Sheep - portable loading ramp \$693 to \$2,893

Cattle loading ramp \$1,973 to \$5,815

C. & F. Industries:

Sheep - portable with drawbar \$1,665

Cattle \$1,608

2.21.5 Deer Complex Building Costs:

Deer shed cost varies with size and design.

Elk/Wapiti Complex:

- Under existing covered yards \$20,000 to \$28,000

Need an outside corral, can handle approximately 400 weaners/yearlings

- New yards/shed, one third covered, two thirds corral \$45,000

- Farmer building own shed, capable of use for 125 to 250 hectare block \$16,000

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 7.5 x 7.5m to 9 x 9m \$11,000 to \$15,800

Shed internals, 6 various plans available, example of two plans,	
Plan B - 2.4m ¼ circle, 3m workrace, 6 internal subdivision panels, 1.8m door 4 x 1.2m doors.	\$7,600
Plan D - 4.5m ½ circle, 3m workrace, 7 internal subdivision panels, 1.8m door 4 x 1.2m doors, 0.8m door, 0.8m triangle	\$9,740
Outer Yards, various plans available	
Plans D,E & F - 40metres yard walls, 3.6m gate, 3 x 3m gates 1.8m gate, loading ramp	\$9,135
Total for example of Plan D	\$33,375

Yards with 50 head capacity (9m x 7.15m) would cost in the region of \$13,000 to \$20,000; this would include some holding pens outside the shed.

Converting an existing shed would cost approximately 50% of the cost of a new shed.

2.21.6 Greenhouses, Growing Tunnels and Tunnelhouses

Edwards & Williams Greenhouses Ltd.:

Redpath Greenhouses:

Commercial: 'Crop King' curved rafter truss house included, Double Ridge ventilation 30% roof area, twinskin covers, up to 3.5m stud height, crop support, doors, delivered. Approximately 929 square metres kitset from \$40.90 per square metre constructed \$50.60 per square metre

Flower: Roof ventilated crop cover. Single skin, roll up sode vents, doors etc. Approximately 929 square metres kitset from \$31.20 per square metre constructed from \$38.75 per square metre

Crop Cover: Side ventilated arch roof design, single skin, up to 3metre stud height. Approximately 929 square metres kitset from \$19.90 per square metre constructed from \$27.45 per square metre

Propagation: (Semi-commercial) Truss design, twinskin, ridge vent for full length, 1 x door 4.1 metre span.

Sizes	4.1 x 6m	\$2,737
	4.1 x 8m	\$3,126
	4.1 x 10m	\$3,521
	4.1 x 12m	\$3,917
	4.1 x 14m	\$4,312
	4.1 x 16m	\$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	\$843
	2.5 x 3.6m	\$967
	2.5m x 4.8m	\$1,250
	2.5m x 6.0m	\$1,376

Exal Glasshouse Equipment Ltd.:

Venlo glasshouse, 3 metre posts

<u>Modules</u>		<u>Size</u>	<u>Erected</u>	<u>Kitset</u>
<u>Width</u>	<u>Length</u>	(m ²)		
2 spans x 5 bays		320	\$28,175	\$24,063
3 spans x 6 bays		576	\$43,969	\$37,713
3 spans x 8 bays		768	\$55,431	\$47,513
4 spans x 8 bays		1024	\$70,000	\$60,069
4 spans x 10 bays		1280	\$82,994	\$71,006
5 spans x 10 bays		1600	\$100,231	\$85,838
5 spans x 12 bays		1920	\$117,338	\$100,625
6 spans x 11 bays		2112	\$125,256	\$107,013
6 spans x 14 bays		2688	\$154,744	\$132,344
7 spans x 14 bays		3136	\$177,450	\$151,813
7 spans x 17 bays		3808	\$211,313	\$180,863
8 spans x 17 bays		4352	\$238,306	\$204,094

Note: 1 span = 8 metres, 1 bay = 4 metres

Features:

4 mm clear float glass, one double door, add \$4,200 for automatic ventilation - all sizes. Erected prices are within a 30 km radius of factory otherwise freight costs applied. 3.5 m and 4 m post heights also available

Kerilea Manufacturing Ltd.:

Lo-Tunnel Cloche Systems (All frames priced and sold in packs of 25 units. Price includes delivery to nearest freight depot South Island on all orders over \$300, a freight surcharge of \$15 applies to all orders under \$300.

<u>Frames:</u>			<u>Film:</u>		
Frame Width	Frame Height	Price per 25 Frame Pack	Roll Width	Roll Length	Price per roll
0.6m	0.3 m	\$87.36	1.12 m	250 m	\$114.89
0.8m	0.5 m	\$108.44	1.62 m	250 m	\$153.35
1.0m	0.45 m	\$122.21	1.76 m	250 m	\$171.02
1.0m	0.55 m	\$131.88	1.96 m	250 m	\$193.30
1.5m	0.6 m	\$163.91	2.46 m	150 m	\$149.17
1.5m	0.75 m	\$179.38	2.76 m	150 m	\$163.02
2.0m	0.9 m	\$216.05	3.4 m	100 m	\$140.25
0.6m	0.55 m	\$108.44	1.62 m	250 m	\$153.35
0.8m	0.65 m	\$131.88	1.96 m	250 m	\$193.30
1.0m	1.0 m	\$179.38	2.76 m	150 m	\$163.02
1.3m	0.8 m	\$163.38	2.76 m	150 m	\$163.02
1.8m	0.9 m	\$196.88	3.4 m	100 m	\$140.25

Discounts: 6 to 9 rolls per order	5% discount
10 to 19 rolls per order	10% discount
20 rolls and over per order, price on application.	

Gro-Houses and Shade-Houses.

Gro-House: from \$30 per square metre (estimated)

Maxi-Span Shade House: from \$8 per square metre (estimated)

Tunnel World Ltd. Kitsets (including freight)

New Town-house model - 2.3m x 2m to 2.3m x 6m	\$722 to \$967
Mini Tunnelhouses - 3 x 2m to 3 x 10m	\$459 to \$1,171
- 3 x 12m to 3m x 30m	\$1,362 to \$3,018

Tunnelhouses

Kitset ex-factory - 20m x 18m	\$3,686
- 20m x 24m	\$4,914
- 20m x 30m	\$6,143

Large Commercial Alloy

	Price/sq m
- 5m wide	\$40.00
- 6m wide	\$53.00
- 7m wide	\$54.00
- 8m wide	\$55.00

Gabled Commercial Units

Twin skinned, with 2.2m side height, over 200 square metres:

- 6m wide	\$54 per square metre
- 8m wide	\$53 per square metre
- 12m wide	\$48 per square metre

Greenhouse Film

Agpack Plastics Ltd.:

Agphane Greenhouse Film - 2m x 5m x 125 μ m to 4m x 10m x 125 μ m	\$12 to \$46
Agphane 101 Greenhouse Film - 2 m x 50m x 125 μ m to 4 m x 50m x 200 μ m	\$160 to \$547 per roll
Agphane 101 Custom Made Greenhouse Covers to 125 μ m to 200 μ m	\$2.25 to \$3.60 per m ²
Infrasol Sun Selector plus 3 layer co-extruded greenhouse film 4m x 50m x 150 μ m to 14m x 50m x 150 μ m,	\$506 to \$1,660
Sun selector red fluorescent greenhouse film - 7m x 50m x 150 μ m	\$1,230
- 8m x 50m x 150 μ m	\$1,410
Infrane X30 Greenhouse lining film and low tunnel film - 2000m x 100m	\$118 per roll
- 5000m x 100m	\$395 per roll

Tunnelworld Ltd.:

Films

Width

	<u>Price</u>
Agphane 2 and 4 metre widths (200 micron)	\$4.30 per square metre
Infrasol 4 to 14 m	\$3.50 per square metre

Tunnel world locking system	\$2.50 per metre
EVA (200 micron) 6 to 10 m	\$4.50 per square metre
Copper (40% shade) 8 m	\$4.50 per square metre

Richard Anderson Greenhouses Ltd.:

Durafilm 3 EVA film 150 micron, 92% light transmission

	<u>Price per roll</u>	<u>Price cut per metre</u>
1 m x 50 m	\$118.00	\$2.83
3 m x 50 m	\$298.00	\$7.15
6 m x 50 m	\$480.00	\$11.52
6 m x 100 m	\$960.00	\$11.52
8 m x 50 m	\$640.00	\$15.36
10 m x 50 m	\$800.00	\$19.20
12 m x 50 m	\$960.00	\$23.04

Glasshouse Equipment

Exal Industries Ltd.:

ESWA Warming cables:

<u>Cable Size</u>	<u>Without thermostat</u>	<u>With thermostat</u>
18 metres, 230 watt	\$130.38	\$187.25
28 metres, 350 watt	\$172.81	\$229.69
56 metres, 700 watt	\$277.81	\$334.69
94 metres, 1150 watt	\$421.31	\$478.19

Exal ventilation fansets:

500 series, fan plate model/wall fan model, 2.34 m ³ per second	\$341/\$403
600 series, fan plate model/wall fan model, 900 rpm, 3.06 m ³ per second	\$403/\$525
900 series, 630 rpm, 5 m ³ per second	\$875
1200 series, 380 rpm, 9.81 m ³ per second	\$963
Turbofan	
500 series turbofan, white enamel, 45 metre throw	\$337
500 series turbofan stainless steel cabinet, 45 metre throw	\$389
400 series turbofan, plastic cabinet, stainless steel blade, 35 metre throw	\$291
Water proof glasshouse thermostats:	
ET O-40 thermostat, standard	\$65.63
Fitted with phase interruption plug	\$75.25
Mist propagation controller:	
Balance arm mist controller	\$78.75
24 volt transformer	\$36.09
24 volt x 20 mm solenoid valve	\$33.25
Misting nozzles, spaced at not greater than 900 mm on 300 mm PVC risers. 0.8 mm x 15 mm	\$8.49 each

Kanters Engineering & Machinery Ltd.:

Greenhouse Fans - air movement 4000/5000 cubic metres per hour	\$295/\$345
Extendable Rotary greenhouse cleaning brushes 1.8 to 3.6m	\$277
2.4 to 4.8m	\$301

Mosaic Systems Ltd:

Greenhouse Internal Control System:

PlantPlan based controller	- Alpha	from \$6,000
	- Optima, computer plus software	from \$10,000
Breeze Climate Control		from \$3995
Elite Hydroponics Control		from \$3515
Agua Irrigation and Feeding		from \$1950

Richard Anderson Greenhouses Ltd.:

Misting Equipment		
- minimalist system		\$375
- mist timer		\$400
Propagation Heating		
- soil heating cables		\$75 to \$469
- heat wave panels	e.g. 1m x 5m	\$465
Spraying Fumigation Equipment		\$475 to \$3,550

2.21.7 Houses/Cottages

Fraemohs Industries: (ex Christchurch)

Interlocking solid timber homes.

<u>Model</u>	<u>Bedroom</u>	<u>Area</u> (square metres)	<u>Kitset 1</u>	<u>Kitset 2</u>	<u>Erected</u>
201	2	57	\$ 38,592	\$ 45,829	\$ 68,742
203	2	73	\$ 50,915	\$ 60,336	\$ 87,129
205	2	88	\$ 59,389	\$ 66,097	\$ 94,256
303	3	103	\$ 67,357	\$ 74,257	\$105,959
308	3	132	\$ 78,979	\$ 88,813	\$128,180
312	3	147	\$ 96,448	\$109,235	\$152,706
402	4	164	\$104,598	\$116,028	\$160,720
405	4	274	\$172,182	\$186,667	\$261,652

Note:

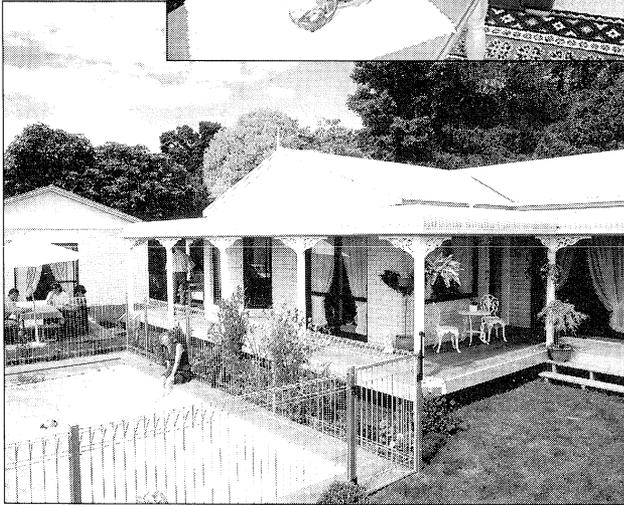
Kitset 1 Walls. Windows. Exterior and interior doors. Ground floor joists, flooring, sisalation. First joists and flooring (where shown). Roof beams. Rafters. Sarking and fascia boards. Batts, building paper, purlins and roofing. Spouting and down pipes. Stain and satin polyurethane. Stairs (where shown). Hardware. Working drawings and erection instructions.

Kitset 2 As Homepack, plus: Kitchen joinery. Plumbing fittings.

Erected All Homepack 1, erected and painted plus:
Electrical installations. Plumbing installation and painting. An allowance for drainage, foundations and building permit.

GREAT STYLE AND DESIGN NEVER DATES...

...the
choices
just get
better



For more design
details, pick up
a copy of our
20 page, colour
brochure from
your nearest
Initial Homes
Franchisee.

Illustrated above is Initial's impressive, Albatross home.



INSPIRED DESIGN BUILT
FOR YOUR LIFESTYLE

Fletcher Homes Ltd:

House	Bedrooms	Size m ²	Kitset	Lock-up Shell	Completed
Manuka	3	72.4	40,600	43,000	70,000
Charisma	3	104.3	47,300	49,800	81,500
Sumner	3	92.6	52,500	55,000	90,500
Palmer	3	86.6	50,500	53,000	87,500
Baltimore	3	107.0	58,000	61,000	100,000
Rhode Island	3	103.0	55,000	57,500	95,000
Heritage	3	111.3	61,000	64,000	105,000
Adonis	3	123.6	63,500	66,500	110,000
Victoria	3 + study	173.4	76,000	79,000	130,500
Dunstan	3 + study	201.0	84,000	87,000	144,500

Note:

Shell only prices: includes - house locked up, ready for electrician, plumber and linings. Items not included are permit fees, drainlaying materials and labour, electrical materials and labour plumbing materials and labour excluding fascia gutter and downpipes, insulation, interior linings, fittings, furnishings and interior joinery and doors.

All prices are for flat sites in the Christchurch area.

Kitset Prices include everything except all electrical work, plumbing work, all painting and papering, door handles and catches to internal doors, ceiling stipple and Gib board stopping, steps at rear and front porch/verandah, foundation materials such as piles, baseboards, concrete etc. and drainage work is not included.

2.21.8 Garages

Durobuilt:

All Steel:

6m x 4m	from \$3,412
6m x 6m	from \$4,374
6m x 9m	from \$5,380
7.5m x 6m	from \$5,162
7.5m x 9m	from \$6,299
7.5m x 12m	from \$7,437

2.21.9 Haybarns/Implement Sheds/Packing Sheds/Stables

Durobuilt:

Calf Rearing Shelters

6m x 4m	from \$2,624
9m x 4m	from \$3,412
6m x 6m	from \$3,237
9m x 9m	from \$4,155

Implement Sheds

Small Block implement sheds 3m wide bays 6m x 6m to 12m x 12m

(2 to 4 bays) \$3,674 to 1,794

Farm implement sheds, 4m wide bays 8m x 6m/8m x 12m, all 2 bays \$5,285 to \$8,593

Lean To Implement Sheds

Open across front	
6m deep 4.9m bays, 2 bays	\$6,094
7.5m deep 4.9m bays, 2 bays	\$7,063

Commercial Buildings

All steel, 4m bays	
17m x 15m, 4 bays	\$22,120
17m x 18m, 4 bays	\$28,088
17m x 21m, 4 bays	\$31,417

C. & F. Industries:

Haysheds (Kitset)

<u>Bays</u>	<u>Bales</u>	<u>Circular</u>	<u>Lean - To</u>
1	500 to 550	-	\$4,287
2	1000 to 1100	\$4,049	\$6,165
3	1500 to 1650	\$5,711	\$8,044
4	2000 to 2250	\$7,380	\$9,928
5	2500 to 2750	\$9,025	\$11,805
6	3000 to 3250	\$10,708	\$13,683
End wall			\$1,242
Door end wall			\$2,484

Circular Arch Hayshed 3.6m lean-tos, to fit

First two bays both sides	\$3,455
Each additional bay	\$1,334

Lean - To Implement Sheds

	<u>Shed</u>	<u>Canopy</u>
1 Bay	\$3,741	\$519
2 Bays	\$5,469	\$913
3 Bays	\$7,198	\$1,307
4 Bays	\$8,939	\$1,701
5 Bays	\$10,664	\$2,095
6 Bays	\$12,388	\$2,489

Packing Sheds (9m span)

	<u>Lean-to</u>	<u>Gable</u>
2 Bays	\$11,481	\$11,856
3 Bays	\$14,920	\$15,445
4 Bays	\$18,359	\$19,034
5 Bays	\$21,798	\$22,623
6 Bays	\$25,237	\$26,212

McAlpines:

Haybarns (Materials only)

	<u>Size</u> (Metres)	<u>Approx. Capacity</u> (bales)	<u>Price</u>
2 Bay	(9.0 x 6.0)	707	\$4,080
3 Bay	(13.5 x 6.0)	1515	\$5,502
4 Bay	(18.0 x 6.0)	2025	\$6,924
5 Bay	(22.5 x 6.0)	2530	\$8,347
6 Bay	(27.0 x 6.0)	3050	\$9,769

New World Products Ltd.:

Round Barns:

	<u>Erected</u>	<u>Complete Kitset</u>	<u>Steel Only</u>
3.6 metre Bays			
3.6 metre Extension	\$1,698	\$1,444	\$1,269
2.2 m 2 Bays	\$3,688	\$3,063	\$2,888
3.3 m 3 Bays	\$5,460	\$4,913	\$4,550
4.4 m 4 Bays	\$6,913	\$6,221	\$5,674
5.5 m 5 Bays	\$8,313	\$7,486	\$6,576
6.6 m 6 Bays	\$9,881	\$8,890	\$7,798
8.1 m 7 Bays	\$11,633	\$10,476	\$9,204
8.7 m 8 Bays	\$12,973	\$11,650	\$10,194
9.9 m 9 Bays	\$14,700	\$13,213	\$11,575
11 m 10 Bays	\$16,433	\$14,779	\$12,959
Hinged Door End	\$1,488	\$1,378	
Sliding Door End	\$1,706	\$1,597	
Blank End	\$1,006	\$919	
Coralite (per sheet)	\$21.88		
Flashing (per end)	\$109		

The customer is responsible for : 0.3 cubic metres of builders mix per truss, water for the foundations and a level site. Mileage is charged at \$1.75 per km for distances over 60km.

<u>Lean-tos on one side</u> <u>Kitset</u>	<u>Erected</u>	<u>Erected</u>	<u>Kitset</u>	
	<u>Iron off</u>	<u>Iron on</u>	<u>Iron on</u>	<u>Iron off</u>
1st bay, roof only	\$770	\$866	\$753	\$621
2nd bay, roof only	\$1365	\$1540	\$1330	\$1199
3rd bay, roof only	\$1969	\$2223	\$1908	\$1785
4th bay, roof only	\$2091	\$2888	\$2485	\$2275
5th bay, roof only	\$3168	\$3570	\$3063	\$2940
6th bay, roof only	\$3763	\$4244	\$3640	\$3518
Lean-to side wall				\$140 per bay
Lean-to end wall				\$289 per end
Coralite				\$30.60 per sheet

Gable Buildings (Multi-purpose):

Erected Prices (OIS=Open One Side, CID=Closed One Door):

	<u>OIS</u>	<u>CID</u>	<u>OIS</u>	<u>CID</u>
<u>Height</u>	<u>2.5</u>	<u>2.5</u>	<u>3.0</u>	<u>3.0</u>
6 x 6	\$4,262	\$5,101	\$4,472	\$5,448
up to				
21 x 6	\$10,091	\$11,608	\$10,436	\$12,159
7.2 x 7	\$5,129	\$6,134	\$5,541	\$6,682
up to				
21.6 x 7	\$11,059	\$12,705	\$11,908	\$13,851
<u>Height</u>	<u>3.0</u>	<u>3.0</u>	<u>3.5</u>	<u>3.5</u>
7.2 x 8	\$7,014	\$8,202	\$7,456	\$8,925
up to				
21.6 x 8	\$14,496	\$16,486	\$15,079	\$17,416
7.2 x 9	\$7,200	\$8,434	\$7,873	\$9,342
up to				
21.6 x 9	\$14,958	\$16,994	\$12,378	\$18,471
7.2 x 10	\$8,803	\$10,130	\$9,374	\$10,982
up to				
21.6 x 10	\$17,887	\$20,061	\$18,673	\$21,196

Note: Netting, sizational, coralite, man doors can be fitted. Milage and/or accomodation charges after 60km. Customer supplies builders mix and water on a level site.

Cover Fast Building Systems (Formsteel):

Implement Shed, three sides enclosed

12.0 x 6/9/12 metres	- height 3.0m	\$5,766 to \$12,101
	- height 4.0m	\$6,333 to \$13,222
8.0 x 6/9/12 metres	- height 3.0m	\$7,785 to \$16,757
	- height 4.0m	\$8,575 to \$18,091

Packing Shed, enclosed with roller door

12.0 x 6/9/12 metres	- height 3.0m	\$6,954 to \$13,609
	- height 4.0m	\$8,802 to \$16,004
18.0 x 6/9/12 metres	- height 3.0m	\$9,425 to \$18,743
	- height 4.0m	\$11,517 to \$21,508

Calder Stewart Industries Ltd:

	<u>per sq m</u>
Implement Sheds and haybarns	\$80 to \$120
Farm workshops	\$150 to \$200
Packing sheds	\$130 to \$170
Growing sheds	\$130 to \$160
Storage biuldings	\$80 to \$150

Note: Prices vary depending upon size, number of walls, floors, doors, windows and layout etc.

Steel Plus Industries Limited:

Half Round Buildings:

Used for haybarns, workshops, storage, calf rearing sheds etc.

8.7m x 6m to 8.7m x 30m (1100-5500 bales, 2-10 bays), 4.8m high \$3,594 to \$14,744

Used for workshops, large machinery etc.

3.6m bays, 8.7m x 7.2m to 8.7m x 36m (2-10 bays), 4.8m high \$4,194 to \$17,393

12m arch, 12m x 8m to 12m x 40m (2-10 bays) 6m high \$7,756 to \$38,329

Gable Buildings:

Used for implement sheds, packing sheds etc.

7.2m x 6m to 21.6m x 9m \$5,000 to \$21,346

10.8m x 10m to 21.6m x 12m \$13,205 to \$28,329

2.21.10 Silage Pits

McKendrys:

Modular 2m x 2m slabs including brackets \$225

Columns \$140

2.21.11 Fertiliser Bins

C. & F. Industries:

Sliding Arch Fertiliser Bins:

2 Bays 50 tonnes capacity \$12,068

3 Bays 80 tonnes capacity \$14,729

4 Bays 110 tonnes capacity \$17,397

McKendrys:

Modular Construction Concrete Bins -

2m x 2m Concrete Slabs including brackets \$225

Columns \$140

2.21.12 Bridges

C. & F. Industries (Ex Depot Carterton):

3.6m x 3.3m wide \$1,388

15 m x 3.8m wide \$16,554

6.0m x 3.8m wide \$5,644

18 m x 3.8m wide \$21,200

9.0m x 3.8m wide \$8,143

21 m x 3.8m wide \$25,858

12 m x 3.8m wide \$11,654

24 m x 3.8m wide \$33,097

2.21.13 Grain Silos

Refer also to *Section 2.19.5*, Silo Mesh.

Dan Cosgrove Ltd:

Silos to be bolted to concrete base -

Model	Diam (m)	Overall Height (m)	Bushel Capacity	Metric Wheat	Tonnes Barley	Capacity m ³	Wholesale Price
15/3	4.58	3.78	1355	36	31	47.73	\$2924
15/4	4.58	4.59	1733	46	39	61.06	\$3256
15/5	4.58	5.41	2116	57	48	74.56	\$3638
15/6	4.58	6.22	2495	67	57	87.89	\$4097
18/3	5.49	4.04	2006	54	46	70.68	\$3680
18/4	5.49	4.85	2551	68	58	89.86	\$4106
18/5	5.49	5.67	3102	83	71	109.27	\$4709
18/6	5.49	6.48	3646	98	83	128.44	\$5245
18/7	5.49	7.29	4191	113	96	147.61	\$5916
18/8	5.49	8.10	4735	127	108	166.78	\$6630
18/9	5.49	8.92	5286	142	121	186.19	\$7395
21/5	6.41	5.93	4319	116	99	152.13	\$5916
21/6	6.41	6.74	5049	136	116	177.85	\$6766
21/7	6.41	7.55	5791	156	133	203.98	\$7472
21/8	6.41	8.36	6533	176	150	230.11	\$8347
21/9	6.41	9.18	7284	196	167	256.56	\$9265
24/5	7.32	6.20	5726	154	131	201.69	\$7285
21/6	7.32	7.01	6694	180	153	235.78	\$8245
24/7	7.32	7.82	7662	206	176	269.86	\$9265
24/8	7.32	8.63	8630	233	198	303.95	\$10115
24/9	7.32	9.45	9609	260	221	338.45	\$11220

Transportable silos -

Model	Diam. (m)	Overall Height (m)	Bushell Capacity	Wheat (t)	Barley (t)	Oats (t)	Maize (t)	Price
121	3.66	3.31	452	13	12	9	12	\$3,822
122	3.66	4.21	695	20	17	13	18	\$4,017
123	3.66	4.93	938	27	23	19	24	\$4,357
124	3.66	5.74	1191	33	29	24	30	\$4,852
125	3.66	6.55	1424	40	35	29	37	\$5,117
126	3.66	7.36	1667	46	41	34	43	\$5,499

Note: Price includes free delivery 80 km from Timaru to Rakaia. \$2.20 per kilometre thereafter. When a pilot vehicle is required it is to be supplied by client.

Silos come complete with external wall ladder and bagging-off chute.

Fibreglass Feed Silos

Ribtec:

Capacity Cu.metre	Meal (t)	Wheat (t)	Barley (t)	Oats (t)	Maize (t)	With Steel Stand	With Galvanised Stand
5.4	2.5	3.9	3.0	2.3	3.6	\$3,555	\$3,689
10.5	5.0	7.5	5.8	4.5	7.0	\$4,089	\$4,311
21	10.0	15.0	11.6	9.0	14.0	\$5,244	\$5,689

2.21.14 Diesel Tanks

Ribtec:

1770 litre with stand	\$1,511
530 litre with stand	\$756

2.21.15 Killing Sheds

Concrete

Cement Products:

2.13 m x 2.8 m high with aluminium screen door	\$2,608
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McKendrys

Round type - 2.4m diam x 2.7m high	\$1785 to \$2220
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Large square type - 2.44m square x 2.44m high	\$2785 to \$3235
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All include door, vents, rail and fittings.

Fibreglass

Ribtec: (price includes delivery)

Diameter	Height	
2.44m	2.13m	\$2,578
3.15m	2.06m	\$2,133
3.43m	2.44m	\$2,292

2.21.16 Piggeries (Circular Arch)

C. & F. Industries:

Bays	Length	
2/3	6/9 m	\$12,830 to \$15,638
4/5	12/15 m	\$18,434 to \$21,211
6	18 m	\$23,983

Vents - each	\$933
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2.21.17 Shelters (Stock)

Ribtec:

	North Island	South Island
Calf/Goat fibreglass hutch (3 x 2.6m)	\$756	\$978
Dry Sow shelter		
4.2m x 2.4m	\$1,333	\$1,422
6.2m x 2.4m	\$1,600	\$1,689
Farrowing shelter		
single - 2.1m x 2.4m	\$800	\$800
double - 4.2m x 2.4m	\$1,307	\$2,222

2.21.18 Dog Motels

Ribtec:

Single Fibreglass Kennel \$284

Prattley Engineering:

Dog motels \$296 to \$598

2.21.19 Building Materials

Roofline Products Ltd.:

	<u>Price per metre</u>
Iron: - Galvanised 0.40 corrugated and roofdeck	\$7.70
- Colourcote 0.40 corrugated and roofdeck	\$10.06
- Galvanised 0.40 weatherboard	\$7.44
- Mini Iron	\$8.23
- Galvanised 8 x 75 x 40, corrugated	\$7.09
Skylite - corrugated profile	\$12.69
Spouting: - 115 x 55 Box Galvanised and D Galvanised	\$4.81
- 125 x 55 D Galv.	\$4.90
- External and internal corner galvanised	\$19.25
- Spouting stopends	\$8.75
Downpipe: - 75 x 50 Rectangular Colour	\$13.04
- 65mm x 0.40 round Galvanised	\$6.74
- 75 x 50 Rectangular Galvanised	\$10.41

Cement Products

Higgins Redimix Concrete: (Ex Palmerston North and Feilding)

	<u>19 mm</u>	<u>12 mm</u>
	(\$/cu.m)	(\$/cu.m)
10/15/17.5/20 MPa	\$123 to \$144	\$128 to \$149
25/30/35/40 MPa	\$157 to \$202	\$162 to \$207
Blockfill	\$178	
Kerb Mix	\$152	

Small load surcharge up to 2 m³ \$30.00 per load

Conveyour Hire - \$12.50 per cubic metre

Accelerator (calcium) \$3 per 1% per cubic metre

Allied Concrete Ltd.:(1995 prices)

	<u>\$/Cu.m</u>
17.5 MPa	\$112.50 to \$141.50
20 MPa	\$114.50 to \$143.00
25 MPa	\$119.50 to \$148.00
30 MPa	\$124.50 to \$153.00

Polythene*Edwards and Williams Ltd:*

Horticultural polythenes:

Durafilm '3' 1 m x 50 m to 14 m x 50 m

Durafilm 3 part rolls 2 m x 5 m to 12 m x 20 m

Durafilm - white, 35% 6 m x 50 m to 12 m x 50 m

Price per roll

\$104 to \$980

\$19.90 to \$477.60

\$570 to \$1,140

Van Leer New Zealand Ltd.:

Polythene building and agricultural film

Price per roll

Black

Clear

50 μ - 100mm x 100m to 4000mm x 50m

\$16.75 to \$33.50

\$16.75 to \$33.50

80 μ - 1000mm x 100m to 5000mm x 50m

\$17.60 to \$44.00

\$22.40 to \$56.00

125 μ - 1000mm x 100m to 5000mm x 50m

\$27.60 to \$68.90

\$35.10 to \$87.70

200 μ - 4000mm x 25m to 4000mm x 50m

\$43.50 to \$87.90

\$56.00 to \$111.90

250 μ - 2000mm x 50m to 4000mm x 50m

\$54.90 to \$109.80

\$69.90 to \$139.70

2.22 SHELTER AND FARM FORESTRY COSTS

2.22.1 Seedling Trees

Appletons Tree Nursery:

	<u>Price per 1000</u>	<u>Price per 100</u>
Cupressus lusitanica	\$450	\$56
Cupressus macrocarpa	\$56	\$450
Eucalyptus nitens	\$550	\$68
Pinus radiata GF12	\$20	\$160
GF16	\$21	\$170
GF23CP	\$56	\$450
GF25 & 26CP	\$80	\$650
GF27 & 28CP	\$88	\$700

Note: Freight is extra

Ministry of Forestry:

	Northland	Wairarapa and Wellington	Canterbury
P.radiata GF 17 to 9	\$200 to \$250	\$150 to \$200	\$200 to \$230
GF 22	\$650	\$400 to \$550	\$550 to \$650
GF 25 to 28	\$700 to \$800	\$450 to \$600	\$600 to \$850
A.melanoxylon per 1000	\$420 to \$600	\$420 to \$600	\$550 to \$800
C.macrocarpa per 1000	\$350 to \$450	\$330 to \$450	\$400 to \$600
C.lusitanica per 1000	\$350 to \$450	\$330 to \$450	\$600
Eucalyptus per 1000	\$420 to \$600	\$420 to \$600	\$420 to
\$600			
J.nigra 1000 spots	\$550	\$550	-
Poplars per 1000	\$600 to \$800	\$800 to \$1500*	\$600 to \$880
Willows per 1000	\$600 to \$800	\$800 to \$1500*	\$600 to \$800
Douglas Fir per 1000	-	\$350 to \$450	\$400
Root trainers (each)	\$1 to \$1.10	-	\$1 to \$1.10

* = stakes and poles

Gibbs Nurseries Ltd: (Dannevirke)

	<u>Price per 100</u>
Abelia (Chinese Floribunda)	\$171
Acacia spp (Wattle)	\$109
Alnus Cordata/Glutinosa	\$193/\$241
Cedrus Deodara (Indian Cedar) 2 year	\$153
Chamaecyparis Lawsoniana 2 year	\$131
Cortaderia spp. 2 year (Pampas and N.Z. Toe Toe)	\$53 to \$83
Cupressus all varieties 2 year trees	\$131
Eucalyptus spp. 2 year	\$109
Larix spp (Larch)	\$131
Liquid amber	\$48 per 10
Pinus Radiata: 1 year (selected)/1.5 year (sturdy)/2 year transplanted	\$26/\$61/\$92

	<u>Price per 100</u>
Podocarpus (Totara)	\$306
Populus spp. (Poplars)	\$171
Pseudotsuga menziesii (Douglas Fir) 2 year old	\$109
Salix Matsudana (Willow)	\$171
Sequoia (Californian Redwood) 2 year	\$171
Tree Lucerne (Tagasaste)	\$118

<i>Ngongotaha Nursery: (Rotorua)</i>	<u>Price per 100</u>	<u>Price per 1000</u>
Acacia dealbata (Silver Wattle)	\$50	\$420
Alnus rubra (Red Alder) 50 to 70cm	\$200	
Cedrus deodara (Himalayan cedar)	\$280	
Cupressus (Macrocarpa and Lusitanica spp)	\$53	\$450
Cystis proliferus (Tree Lucerne) 40 to 60cm	\$70	
Eucalyptus spp.	\$57	\$480
Larix kaempferi (Japanese Larch) (0.75 to 1.2 m)	\$120	
Leyland cypress (0.50 to 0.75 m)	\$310	
Pseudotsuga menziesii (Douglas fir) 2 year - 35cm +	\$100	\$850
Pinus radiata GF18 seedlings	\$32	\$180
GF23 seedlings		\$500
GF26 nursery cuttings	\$60	\$500
GF28 nursery cuttings	\$60	\$500
Sequoia sempervirens (Californian Redwood)	\$150	

Halketts Nursery: (Christchurch)

	<u>Price per 10</u>	<u>Price per 100</u>	<u>Price per 1000</u>
Pinus Radiata 1/0 GF 16	-	\$42	\$184
1/0 GF 17	-	\$44	\$201
1/0 GF 19	-	\$46	\$228
2/0 GF 17	-	\$53	\$271
Pinus Nigra	-	\$79	\$416
Pinus Patula	\$21 each	\$153	-
Eucalyptus spp	\$16	\$92	\$700
Poplar- all cultivars	\$18	\$101	\$840
Pseudotsuga menziesii (Douglas Fir)			
2 year	-	\$81	\$430
3 year	-	\$92	\$502
Cedrus deodara 2 year	-	\$79	\$416
3 year	-	\$88	\$481
Salix spp	\$18	\$101	-
Wattles - all cultivars	\$21	\$153	-
Alnus Glutinosa (Black Alder)	\$21	\$153	

Betula Pendula (Silver Birch) 1 to 1.5m	\$83	-	
1.5 to 2.5m	\$12 each	-	-
Cortadenia Selloana (Pampas Grass)	\$15	\$123	
Phormium Tenax (N.Z. Native Flax)	\$21	\$153	-
Sequoia Giganteum (Wellingtonia)	\$21	\$153	-
Leyland Cypress	\$42	\$372	-
Cupressus -Arizonica	\$21	\$153	-
-Macrocarpa	\$11	\$57	\$403

2.22.2 Forestry Establishment and Tending Costs

Note: The following figures have been kindly provided by the *Ministry of Forestry*. Readers should note that costs vary markedly according to region and locality, size of woodlot, slope, access and vegetation etc. M.O.F. advisers recommend that farmers seek advice from qualified persons before incurring any expenditure on a forestry project.

Likely costs for forest operations are:

Establishment

Spot spraying before or after planting - flat (easy)		14 to 18 cents per spot
- hill		15 to 22 cents per spot
(the above costs include chemical at 3 to 6 cents per spot)		
Ripper hire		\$15 to \$20 per hour in use
Contract ripping	\$50 per km, or \$150 to \$200 per hectare	
Hand planting - radiata (bare rooted) - flat		15 to 20 cents per tree
- hill		20 to 30 cents per tree
- other (bare rooted)		20 to 40 cents per tree
- containerised stock		40 to 80 cents per tree
(depending on size of container)		

Seedlings see *Section 2.22.1*, above.

Nutrition

Hand fertilising (phosphate)		15 to 25 cents per tree
Aerial fertilising (phosphate) by helicopter		\$320 to \$340 per hectare
Aerial fertilising (nitrogen) by helicopter		\$350 to \$370 per hectare
Oversowing (grass/legumes) plus fertiliser by helicopter		\$320 to \$340 per hectare
Boron fertilising/Ulexite	For 10 to 20 ha,	\$75 per ha applied
(purchased from <i>Farm Forestry Association</i>)		

Tending

Pruning	- first lift	\$0.70 to \$1.10 per tree
	- second lift	\$0.90 to \$1.35 per tree
	- third/fourth lift	\$1.00 to \$1.70 per tree
Thin to waste	- first thin to 400 to 600 trees	\$120 to \$250 per ha
	- second thin to 200 to 300 trees	\$100 to \$150 per ha

Note: Hourly rate of \$16 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 (brochures available through the Ministry of Forestry). Usual cost range is \$10 to \$25 per ha per year depending on level of cover. Minimum charge of \$35 plus administration costs.

2.22.3 Logging and Transportation Costs

Logging	- Ground based logging	\$9.80 to \$16.00 per tonne
	- Cable logging	\$13.50 to \$22.00 per tonne
	- Helicopter logging, depends on flight time or distance	\$65 to \$100 per time
Roading	- Clayland	up to \$2.70 per tonne
		usually \$0.67 to \$2.22 per tonne
Transportation per kilometre		\$0.12 to \$0.20 per tonne

2.22.4 Tree Planting Equipment

Aitchison Industries Tree planting augers

Replaceable cutter plus tungsten carbide breaker tip	\$140 to \$183
38cm extensions to fit the above	\$63.00

2.22.5 Shelter/Windbreak/Shade and Weed Cloth

Apack Plastics Limited:

Windbreak Cloth	- 0.91m x 50m	\$46
	- 1.83m x 50m	\$92
	- 2.74m x 50m	\$135
Shadecloth	- 1.83m x 50m (32% shadecloth)	\$147
	- 1.83m x 50m (50% shadecloth)	\$157
Weedtex	- 0.91m x 50m	\$57
	- 0.91m x 100m	\$112
	- 1.8m x 50m	\$112

Donaghys:

	<u>Width</u>	<u>Price per 50 m roll</u>
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Windbreak:

Woven (green):	0.91 m to 2.74 m	\$51.10 to \$202.20
Knitted:	0.91 m to 1.83 m	\$63.00 to \$126.00
Knitted (ultrawind):	1 m to 4.10 m	\$114.50 to \$468.30

Shadecloth:

Supashade (knitted):		
Very light	1.83 m to 3.66 m	\$186.40 to \$372.80
Light	1.83 m to 3.66 m	\$205.15 to \$410.30
Medium	1.83 m to 3.66 m	\$261.45 to \$522.90
Heavy	1.83 m to 3.66 m	\$304.80 to \$609.60

Weed Control:

Weedtex 0.91 m to 3.66 m \$54.10 to \$216.40

Evergreen Horticulture and Hydroponics:

Woven Shadecloth - (1.83m x 50m Rolls)

Very Light	(30% to 35%)	\$139
Light	(45% to 50%)	\$148
Medium	(65% to 70%)	\$197
Heavy	(75% to 80%)	\$227

Knitted Shadecloth - (1.83m x 50m Rolls)

Very Light	(30% to 35%)	\$193
Light	(45% to 50%)	\$212
Medium	(65% to 70%)	\$271
Heavy	(75% to 80%)	\$316

Woven Windbreak -	91cm x 50m	\$43.05
	1.83m x 50m	\$86.05
	2.74m x 50m	\$175.10
	3.66m x 50m	\$206.00

Knitted Ulstrawind 65% Porosity Windbreak

2.74m x 50m	\$323
3.66m x 50m	\$405

Woven Weedmat	91cm x 50m	\$54
1.83m x 50m		\$108
3.66m x 50m		\$216

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.

Note: 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 user orientated?
- 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?
- Are the data required to run the programs readily available?
- Can the farmer write their own programs?

Hardware

- Is there sufficient capacity, in terms of memory and permanent storage, to handle the data to be processed? This is particularly important as the operating system and programs reduce the available memory.
- 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. does the dealer stock spare parts?

- 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:

At least 4MB RAM for an IBM (or compatible) computer. (8MB if windows is used). Need a minimum of 120MB hard disc, and one floppy disk drive. (240MB if windows is used). VGA colour screen is recommended.

Require at least a 486 processor or above.

A computer with this sort of capability could be expected to cost within the range of \$1800 to \$2500.

Printer:

The choice of printer will depend on the end use of the computer output. The general rule is that the cost of the printer is related to its speed and the quality produced. (The higher the quality and speed the more expensive the printer will be.) The printer should be capable of handling 132 characters across a page.

A reliable dot matrix printer for general farming use would cost between \$350 and \$1000. Ink jets provide superior print quality but running costs are higher. They cost between \$600 and \$1000. Laser printers offer the the highest print quality for modest running costs. Typical prices for laser printers are \$1000 to \$3500.

Software:

A farmer would normally require the following software:

- Financial recording and budgeting system. Suitable products are available from between \$500 to \$1500.
- Word processing
- Spreadsheet
- Database
- Cost would be in the vicinity of \$2,000 to \$3,000 if purchased individually but between \$800 and \$1000 if purchased as a collective 'suite'.

2.23.4 Hardware Prices

Serious Computer Solutions

Serious Pentium Systems - include:

- PCI & ISA Motherboard
- PCI Local Bus 1 MB Video card
- PCI Enhanced IDE controller
- 16 MB RAM
- 1.44 MB floppy drive
- MAG 15" SVGA Non Interlaced Digital Colour Monitor
- 2x Serial, 1x Parallel
- 101 keyboard

Serious Pentium 75 MHz Systems

- No HDD - IDE controller \$2,114
- 630 MB Fast ATA IDE Hard drive \$2,404
- 1 GB Fast ATA IDE Hard drive \$2,484

Serious Pentium 100 MHz Systems

- No HDD - IDE controller \$2,314
- 630 MB Fast ATA IDE Hard drive \$2,604
- Seagate 1 GB Fast ATA IDE Hard drive \$2,684

Serious Pentium 120 MHz Systems

- No HDD - IDE controller \$2,414
- 630 MB Fast ATA IDE Hard drive \$2,704
- Seagate 1 GB Fast ATA IDE Hard drive \$2,784

Serious Pentium 133 MHz Triton Systems

- No HDD - IDE controller \$2,781
- 630 MB Fast ATA IDE Hard drive \$3,071
- Seagate 1 GB Fast ATA IDE Hard drive \$3,151

Desktop Computers - All systems include 1 MB RAM, 40 MB Hard drive, 1 x Floppy Drive, SVGA Colour Monitor.

486 SX - 25 Mhz	\$1995
486 DX - 33 Mhz - Slimline Case	\$2590
MS - DOS V6, Windows V3.1 Mouse	\$250
Star LC 20 9 Pin Printer	\$399
Star LC 2420 24 Pin Printer	\$590

Computerland:

DEC Venturis 5/75

Pentium processor @ 75mhz, 1 x 1.44Mb Diskette Drive, 8Mb RAM, 630Mb Hard Drive, keyboard and mouse, 14" SVGA Colour Monitor	\$2,520
Printers - Hewlett Packard Laser Jet 5L, 4ppm, 600 x 600dpi, single bin	\$800
- Hewlett Packard 660C, 4ppm, 600 x 600dpi Colour Inkjet	\$678

2.23.5 Software Prices

AgResearch, Whatawhata Research Centre:

Stockpol is a simulation model, designed to evaluate changes in farm policy. With Stockpol, the farmer can experiment with changes to stock classes, stock numbers, buying and selling patterns, lambing and calving dates, target liveweights, shearing, conservation and cropping. By entering the details for the existing and new policies, and using the simulation to predict what will happen. If there is a problem, Stockpol will suggest ways of making the new policy work. An integrated database of prices lets the farmer compare the economics of each policy. Stockpol can also operate as a short-term model for feed-budgeting and monitoring applications.

There are two versions of Stockpol available:

Stockpol Farmer	\$1400
Stockpol Consultant	\$3450

These prices include software, support and training.

Computerland:

Microsoft Office Professional on 3.5"	\$320
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Computer Concepts:

Concept Cash Manager - Farm Financial Recording Budgeting	\$960
Feed Budget Programme	\$296
Invoicing Debtors Module	\$296
Studstock Programme	\$960
F.R.S. Gold	\$949
Financial Analysis	\$180

Flock-Linc:

Annual Flock Fee	\$65 per flock
Annual Ewe Fee	\$1.95 per ewe mated
Enrolment Fee	\$100 per flock (paid once)
Discounts Available	- \$0.18 per ewe mated when data is via floppy disc - \$0.18 per ewe mated, if flock greater than 300 ewes

Landmark:

Software for the land - Windows based ; farm specific and easy to use. A comprehensive farm planner and financial package.	\$350
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Animalplan/Geneplan/Breedpac Bureau Services

Animalplan (owned by The New Zealand Animal Breeding Trust) is an animal recording and data processing system for genetic evaluation of sheep, beef, deer and goats. Three bureaux are licensed to offer a sheep recording service based on Animalplan and they market their services as Geneplan and Breedpac (see next page).

Alan F. Warren & Associates, (Timaru):

Geneplan:

Annual flock fee	\$150
Annual flock fee second and small flocks	\$75.00
Annual processing fee per ewe recorded	\$1.75
Processing discounts for flocks over 500 ewes	P.O.A.
Annual NZABT royalty per new animal recorded	\$0.20
Joining flock fee, (depending on amount of back data to be loaded)	\$100
Joining flock fee small flocks	\$50.00
Entry of historical data	P.O.A.

Computer Concepts: (Masterton):

Geneplan	\$375 Flock fee plus \$1.75 per head
Geneplan batch	\$456

Breedpac (Invercargill):

Annual Flock fee	\$65.00
Annual processing fee per ewe recorded (includes NZABT royalty)	\$1.95
No joining fee or charge for entry of historical data	

The New Zealand Animal Breeding Trust:

Animalplan Software/Specialised Processing -

The New Zealand Animal Breeding Trust, also makes Animalplan available by offering a Personal Computer (PC) based system for breeders and breed groups to operate themselves. In addition the Trust provides specialised data processing services including sire referencing.

Animalplan PC Software Package for Breeders -

Annual lease fee per flock/herd for first flock/herd	\$300
Multiple flock/herd lease fees available on application	
Annual NZABT royalty per new animal recorded	\$0.16
Sire Referencing (across-flock/herd) -	
Data analysis (multi-trait BLUP) per flock/herd fee	\$480*
Genetic Trends -	
Data analysis (multi-trait BLUP) per flock/herd fee	\$120*
Breeding group (across-flock/herd) trend per group member fee	\$120*
Within-flock/herd Multi-trait BLUP Analysis - (including Genetic Trends)	
Flock/herd fee	\$480*

* Where flock/herd is recording using the Trust/Animalplan Genetic Engine either through the Trust or a Bureau licenced to use the Trust software. Other recording systems may incur a data preparation cost.

Specialised and customised processing services -
available on application, e.g. ultra-sound scan records analysed.

Animalplan Field Notebooks -

These notebooks are only available directly from the Trust, c/- Massey University, Palmerston North. (Price includes postage and handling).

250 breeding females	\$23.40
500 breeding females	\$32.40
1000 breeding females	\$44.40

2.24 Appendix: Rate of Inflation in New Zealand 1891 to 1995

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 5.7% in 1989 (see page B-253).

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:

1.1891 (below) compared with 1989 (page B-253)

= 1.0 divided by 0.0111 = 90.09.

this means a dollar (ten shillings) in 1891 would buy 90.09 times as much as a dollar in 1989.

2.1950 (page B-252) compared with 1984 (page B-253)

= 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
1891	-	1.0000								
1892	0.5	0.9947								
1893	2.7	0.9682								
1894	0.5	0.9632								
1895	-0.5	0.9681								
1896	0.5	0.9631								
1897	1.0	0.9532								
1898	4.1	0.9143								
1899	-3.4	0.9457								
1900	2.0	0.9265								
1901	3.0	0.8988								
1902	2.4	0.8771								
1903	-0.5	0.8812								
1903	0.0	0.8812								
1905	0.0	0.8812								
1906	6.6	0.8228								
1907	-0.9	0.8301								
1908	0.0	0.8301								
1909	-1.3	0.8412								
1910	1.4	0.8298								
1911	-0.9	0.8372								
1912	3.2	0.8107								
1913	2.2	0.7929								
1914	4.3	0.7589								
1915	7.8	0.6996								
1916	8.0	0.6435								
1917	9.9	0.5798								

Base Year:

Year	C.P.I. %	1891	1920	1930	1940	1950	1960	1970	1980	1990
1918	12.2	0.5090								
1919	7.7	0.4696								
1920	13.6	0.4059	1.0000							
1921	3.3	0.3926	0.9672							
1922-10.9		0.4353	1.0725							
1923	-2.5	0.4464	1.0998							
1924	2.1	0.4371	1.0768							
1925	0.5	0.4348	1.0713							
1926	0.5	0.4326	1.0658							
1927	-0.8	0.4359	1.0739							
1928	0.0	0.4359	1.0739							
1929	-0.3	0.4370	1.0739							
1930	2.01	0.4460	1.0987	1.0000						
1931	7.6	0.4797	1.1819	1.0757						
1932	-7.9	0.5177	1.2754	1.1608						
1933	-4.6	0.5415	1.3341	1.2142						
1934	1.3	0.5345	1.3169	1.1986						
1935	3.8	0.5142	1.2667	1.1529						
1936	2.8	0.5000	1.2319	1.1212						
1937	7.1	0.4643	1.1439	1.0411						
1938	3.1	0.4501	1.1089	1.0093						
1939	4.6	0.4295	1.0581	0.9631						
1940	4.1	0.4118	1.0145	0.9233	1.0000					
1941	3.7	0.3965	0.9768	0.8891	0.9629					
1942	3.1	0.3842	0.9465	0.8615	0.9330					
1943	2.5	0.3744	0.9224	0.8395	0.9092					
1944	1.8	0.3676	0.9058	0.8244	0.8928					
1945	1.3	0.3628	0.8937	0.8314	0.8809					
1946	0.7	0.3604	0.8878	0.8081	0.8752					
1947	3.3	0.3486	0.8589	0.7817	0.8466					
1948	8.0	0.3207	0.7902	0.7192	0.7789					
1949	1.6	0.3157	0.7779	0.7080	0.7667					
1950	5.8	0.2976	0.7331	0.6672	0.7226	1.0000				
1951	10.9	0.2651	0.6532	0.5946	0.6439	0.8911				
1952	7.9	0.2443	0.6019	0.5478	0.5933	0.8211				
1953	4.6	0.2332	0.5745	0.5229	0.5663	0.7837				
1954	4.5	0.2227	0.5487	0.4994	0.5408	0.7485				
1955	2.6	0.2168	0.05342	0.4862	0.5266	0.7287				
1956	3.4	0.2095	0.5161	0.4698	0.5087	0.7041				
1957	2.2	0.2048	0.5046	0.4593	0.4974	0.6884				
1958	4.5	0.1957	0.4820	0.4387	0.4751	0.6575				
1959	7.5	0.1810	0.4460	0.4095	0.4396	0.6084				

Base Year:

Year	C.P.I. %	1891	1920	1930	1940	1950	1960	1970	1980	1990
1960	-2.7	0.1860	0.4582	0.4170	0.4516	0.6250	1.0000			
1961	1.8	0.1827	0.4501	0.4097	0.4437	0.6140	0.9824			
1962	2.6	0.1779	0.4382	0.3988	0.4319	0.5978	0.9564			
1963	2.0	0.1743	0.4294	0.3908	0.4232	0.5857	0.9371			
1964	3.4	0.1683	0.4147	0.3775	0.4088	0.5657	0.9051			
1965	3.4	0.1626	0.4006	0.3646	0.3949	0.5465	0.8743			
1966	2.8	0.1581	0.3895	0.3545	0.3839	0.5313	0.8500			
1967	6.1	0.1484	0.3657	0.3328	0.3605	0.4988	0.7981			
1968	4.2	0.1421	0.3502	0.3187	0.3452	0.4777	0.7642			
1969	5.0	0.1351	0.3327	0.3028	0.3280	0.4539	0.7262			
1970	6.5	0.1263	0.3112	0.2833	0.3068	0.4245	0.6792	1.0000		
1971	10.4	0.1131	0.2787	0.2537	0.2747	0.3802	0.6083	0.8955		
1972	6.9	0.1053	0.2595	0.2363	0.2558	0.3540	0.5664	0.8338		
1973	8.2	0.0967	0.2383	0.2168	0.2349	0.3251	0.5201	0.7658		
1974	11.2	0.0859	0.2117	0.1927	0.2087	0.2888	0.4621	0.6803		
1975	14.7	0.7333	0.1807	0.1645	0.1781	0.2465	0.3943	0.5806		
1976	16.9	0.0609	0.1501	0.1366	0.1480	0.2048	0.3276	0.4824		
1977	14.4	0.0522	0.1285	0.1170	0.1267	0.1753	0.2805	0.4130		
1978	11.9	0.0459	0.1132	0.1030	0.1116	0.1544	0.2470	0.3637		
1979	13.7	0.0396	0.0976	0.0889	0.0963	0.1332	0.2131	0.3138		
1980	17.1	0.0328	0.0809	0.0737	0.0798	0.1104	0.1766	0.2600	1.0000	
1981	15.5	0.0278	0.0684	0.0623	0.0674	0.0933	0.1493	0.2198	0.8453	
1982	16.1	0.0233	0.0574	0.0523	0.0566	0.0798	0.1253	0.1845	0.7094	
1983	7.4	0.0216	0.0532	0.0484	0.0524	0.0725	0.1160	0.1708	0.6570	
1984	6.1	0.0203	0.0499	0.0455	0.0492	0.0681	0.1090	0.1605	0.6171	
1985	15.5	0.0171	0.0422	0.0384	0.0416	0.0576	0.0921	0.1356	0.5216	
1986	13.2	0.0149	0.0366	0.0333	0.0361	0.0500	0.0799	0.1177	0.4526	
1987	15.7	0.0125	0.0309	0.0281	0.0304	0.0421	0.0674	0.0992	0.3815	
1988	6.4	0.0117	0.0289	0.0263	0.0285	0.0394	0.0631	0.0929	0.3572	
1989	5.7	0.0111	0.0273	0.0248	0.0269	0.0372	0.0595	0.0876	0.3368	
1990	6.1	0.0104	0.0256	0.0233	0.0253	0.0349	0.0559	0.0823	0.3163	1.0000
1991	4.5	0.0099	0.0244	0.0223	0.0242	0.0333	0.0534	0.0786	0.3021	0.9550
1992	0.8	0.0098	0.0242	0.0221	0.0240	0.0330	0.0530	0.0778	0.2997	0.9474
1993	1.4	0.0097	0.0239	0.0218	0.0237	0.0325	0.0523	0.0767	0.2955	0.9341
1994	2.8	0.0094	0.0232	0.0211	0.0230	0.0316	0.0508	0.0745	0.2872	0.9079
1995	2.9	0.0091	0.0225	0.0205	0.0223	0.0307	0.04933	0.0723	0.2788	0.8816

Source: Lincoln University

SECTION 3

LIVESTOCK, CROPPING and HORTICULTURAL GROSS MARGINS

ENTERPRISE ANALYSIS

Prepared by S A Frew B Com (Ag)
Department of Farm and Horticultural Management
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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. 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. 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	291 @	\$33.00		\$9,603
Store m.s. lambs	303 @	\$20.00		\$6,060
Cull hogget/2ths	103 @	\$35.00		\$3,605
5 year old ewes	170 @	\$20.00		\$3,400
Cull ewes to works	55 @	\$15.00		\$825
(Average price)	922	\$ 25.48		
Wool (kg)	5960 @	\$3.00 (net)		\$17,880

TOTAL INCOME

\$41,373

Expenditure:

Shearing -

Sheep	990 @	\$185 per 100		\$1,831.50
Hoggets	370 @	\$185 per 100		\$684.50
Lambs	390 @	\$170 per 100		\$663.00
Tup crutch - ewes	1010 @	\$40 per 100		\$404.00
Main crutch - ewes	990 @	\$65 per 100		\$643.50
Crutch - hoggets	370 @	\$35 per 100		\$129.50
Woolshed expenses - plant, packs e.t.c.				\$350.00

Animal Health -

Drench ewes pre-lamb	990 @	\$0.08		\$79.20
Drench lambs (doses)	2900 @	\$0.04		\$116.00
(replacements drenched 5 times, stores 3 times)				
Vaccinate ewes	990 @	\$0.34		\$336.60
Vaccinate hoggets	370 @	\$0.28		\$103.60
Eartags, footrot and docking etc				\$550.00
Dipping - sheep	1000 @	\$0.50		\$500.00
- lambs	690 @	\$0.45		\$310.50
				\$1,995.90

Cartage - (based on 100km travel)

Prime lambs	291 @	\$1.97		\$573.27
Store lambs	303 @	\$1.78		\$539.34
Cull hgts/2th/5yr ewes	273 @	\$2.41		\$657.93
Works ewes	55 @	\$2.87		\$157.85
Wool - bales	33 @	\$6.00		\$198.00
				\$2,126.39

Selling Charges -

Yard fees - sheep	576 @	\$0.40		\$230.40
Commission -				
- saleyards	\$13,065 @	5.5%		\$718.58
- other stock	\$10,428 @	5.5%		\$573.54
				\$1,522.52
Ram Purchase	5 @	\$400		\$2,000.00

TOTAL DIRECT COSTS

\$12,350.81

TOTAL GROSS MARGIN (before interest)	\$29,022.20
GROSS MARGIN per dollar invested in sheep	\$ 0.63
<u>GROSS MARGIN per Stock Unit</u>	<u>\$ 22.69</u>

**Gross Margin per Stock Unit at Various
Stock Sale and Wool Prices**

		Wool Price \$/kg (net)		
		\$2.40	\$3.00	\$3.60
AVERAGE STOCK	\$20.38	\$16.33	\$19.13	\$21.92
SALE PRICE	\$25.48	\$19.89	\$22.69	\$25.48
\$/HEAD	\$30.58	\$23.45	\$26.25	\$29.04

Interest Costs:

Interest on Capital Stock Value:			
\$45,930	@	8%	\$ 3,674
RETURN per Stock Unit (after interest)			\$ 19.82

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 @	\$22.50	\$22,500	1	1000
Rams	16 @	\$100	\$1,600	0.8	13
	1,016		\$24,100		1,013
Dollar Investment in sheep per stock unit			\$23.80		

Production Parameters:

Lambing - survival to sale.	110%
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	1100 @	\$30.00	\$33,000	
Cull ewes to works	527 @	\$15.00	\$7,905	
Wool (kg)	3840 @	\$3.00 (net)	\$11,520	
TOTAL INCOME				\$52,425.00

Expenditure:

Replacement ewes	595 @	\$30.00		\$17,850
Shearing -				
Sheep	960 @	\$185 per 100	\$1,776.00	
Tup crutch - ewes	418 @	\$40 per 100	\$167.20	
Main crutch - ewes	965 @	\$50 per 100	\$482.50	\$2,425.70
Woolshed expenses - plant, packs e.t.c.				\$250.00
Animal Health -				
Drench ewes pre-lamb	990 @	\$0.10	\$99.00	
Drench lambs (3x)	3300 @	\$0.05	\$165.00	

Vaccinate ewes	990 @	\$0.34	\$336.60	
Eartags, footrot and docking etc			\$300.00	
Dipping - purchased ewes already dipped				
ewes	418 @	\$0.50	\$209.00	
lambs	850 @	\$0.45	\$382.50	\$1,492.10
Cartage - (based on 50km travel except for replacement ewes, at 70km)				
Prime lambs	1100 @	\$1.20	\$1,320.00	
Works ewes	527 @	\$1.60	\$843.20	
Replacement ewes	595 @	\$2.24	\$1,332.80	
Wool - bales	21 @	\$6.00	\$126.00	\$3,622.00
Ram Purchase	4 @	\$300		\$1,200.00

TOTAL DIRECT COSTS \$26,839.80

TOTAL GROSS MARGIN (before interest) \$25,585.20

GROSS MARGIN per dollar invested in sheep \$1.06

GROSS MARGIN per Stock Unit \$25.26

**Gross Margin per Stock Unit at Various
Lamb and Wool Prices.**

		Wool Price \$/kg (net)		
		\$2.40	\$3.00	\$3.60
LAMB	\$24.00	\$16.47	\$18.75	\$21.02
PRICE	\$30.00	\$22.99	\$25.26	\$27.54
\$/HEAD	\$36.00	\$29.50	\$31.78	\$34.05

Interest Costs:

Interest on Capital Stock Value:
 \$24,100 @ 8% \$1,928.00

RETURN per Stock Unit (after interest) \$23.36

3.2.3 Sheep - Merino Ewe

SHEEP GROSS MARGIN
Merino Ewe Flock, Breeding Own Replacements
(Low country)

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Ewes	850 @	\$35	\$29,750	0.85	722.5
2 th Ewes	150 @	\$50	\$7,500	0.8	120
Hoggets (m.s.)	850 @	\$30	\$25,500	0.6	510
Rams	13 @	\$150	\$1,950	0.7	9
	1,863		\$64,700		1,362

Dollar Investment in sheep per stock unit \$47.52

Production Parameters:

Lambing - survival to winter	85%
Death rate (ewes)	5%
All lambs/hoggets wintered, surplus sold after shearing.	
Percentage of 2th entering the flock	15%
Ewes wool clip (kg)	4.2
Hogget wool clip (kg)	3.1
(average 21 and 19 micron diameter, respectively).	

Income:

Hoggets (m.s.)	680 @	\$28.00 (net)	\$19,040
Works ewes	100 @	\$12.00	\$1,200
Wool (kg)	4200 @	\$8.25 (net)	\$34,650
Wool (kg)	2635 @	\$10.23 (net)	\$26,956
Average wool price	6835 kg	\$9.01	

TOTAL INCOME \$81,846.05

Expenditure:

Shearing -					
Sheep	1000 @	\$200 per 100	\$2,000.00		
Hoggets	845 @	\$200 per 100	\$1,690.00		
Crutch ewes	1015 @	\$70 per 100	\$710.50		
Crutch hoggets	850 @	\$45 per 100	\$382.50		
Crutch lambs	900 @	\$35 per 100	\$315.00	\$5,098.00	

Woolshed expenses - plant, packs c.t.c.

Plant, packs etc			\$400.00	
Classing etc approx.	@	\$0.27 per head	\$500.00	\$900.00
Animal Health -				
Drench ewes (2x)	2000 @	\$0.30	\$600.00	
Drench lambs/hoggets	4850 @	\$0.05	\$242.50	
Vaccinate ewes	990 @	\$0.34	\$336.60	
Vaccinate hoggets	160 @	\$0.28	\$44.80	
Footvax			\$1,000.00	
Fly spray, zinc sulphate, tags etc			\$800.00	
Dipping - all sheep	1900 @	\$0.50	\$950.00	\$3,973.90
Cartage - (based on 70km travel)				
Hoggets	736 @	\$1.80	\$1,324.80	
Works ewes	100 @	\$2.24	\$224.00	
Wool - bales	40 @	\$6.00	\$240.00	\$1,788.80
Ram Purchase	3 @	\$400		\$1,200.00

TOTAL DIRECT COSTS \$12,960.70

TOTAL GROSS MARGIN (before interest) \$68,885.35

GROSS MARGIN per dollar invested in sheep \$1.06

GROSS MARGIN per Stock Unit \$50.59

Gross Margin per Stock Unit at various hogget and wool prices:

		Average Wool Price \$/kg (net)		
		\$7.21	\$9.01	\$10.82
AVE HOGGET	\$22.40	\$38.75	\$47.79	\$56.84
PRICE	\$28.00	\$41.54	\$50.59	\$59.64
\$/HEAD (net)	\$33.60	\$44.34	\$53.39	\$62.44

Interest Costs:

Interest on Capital Stock Value:
 \$64,700 @ 8% \$ 5,176

RETURN per Stock Unit (after interest) \$ 46.79

3.2.4 Beef - Breeding cow

BEEF GROSS MARGIN

Breeding Cow Herd, Selling Steers
and Surplus Heifers at approximately 18 months

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Cows	82 @	\$550	\$45,100	5.5	451
I.C. R2yr heifers	18 @	\$550	\$9,900	5.5	99
R1yr Heifers	43 @	\$300	\$12,900	3.5	151
R1yr Steers	43 @	\$360	\$15,480	4	172
Breeding Bulls	3 @	\$1,400	\$4,200	5.5	17
	189		\$87,580		889
Dollar Investment in cattle per stock unit			\$98.52		

Production Parameters:

Calves weaned	86%
Death rate.	3%
Heifers entered in herd each year	18%
Angus/Hereford cows mated to Angus or Hereford bulls.	
Steers and surplus heifers sold as forward store, on farm.	

Income:

18 month steers	42 @	\$430 (net)	\$17,954
18 month heifers	24 @	\$320 (net)	\$7,601
Average price of 18 month cattle		\$390	
Cull Cows	15 @	\$370 (net)	\$5,550
Bull	1 @	\$900 (net)	\$900

TOTAL INCOME \$32,005

Expenditure:

Animal Health -				
Drench calves (3x)	258 @	\$0.55	\$141.90	
Pregnancy test cows	100 @	\$2.20	\$220.00	\$361.90
Bull purchase - landed				\$2,000
Freight and commission (stock net on farm)				\$0.00

TOTAL DIRECT COSTS \$2,361.90

TOTAL GROSS MARGIN (before interest)	\$29,642.85
GROSS MARGIN per dollar invested in cattle	\$0.34
<u>GROSS MARGIN per Stock Unit</u>	<u>\$33.34</u>

Gross Margin per Stock Unit at various weaning percentages and selling prices (18 month cattle):

		AVERAGE SALE PRICE \$/HEAD of 18 month cattle		
		\$331.60	\$390.11	\$448.63
	77%	\$25.92	\$29.68	\$33.44
% WEANED	86%	\$29.03	\$33.34	\$37.66
	95%	\$32.15	\$37.01	\$41.87

Interest and Feed Costs:

Interest on Capital Stock Value:			
\$87,580 @ 8%		\$7,006.40	
Feed - Buy in additional hay (bales)			
700 @ \$4.00		\$2,800.00	\$9,806.40
RETURN per stock unit (after interest and feed)			\$22.31

3.2.5 Bull Beef

BULL GROSS MARGIN
Friesian Bulls purchased as weaners
sold at 19 to 24 months of age

Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Rsg 1 yr Friesian Bulls	70 @	\$360	\$25,200	4	280
Rsg 2 yr Friesian Bulls	20 @	\$550	\$11,000	6	120
	90		\$36,200		400

Dollar Investment in beef per stock unit \$91

Production Parameters:

Death rate. 3%

Sell majority at 19 to 21 months of age between March and May, retain balance until August (sell at 24 months of age). The assumption is made that prices normally rise during March to August, with an average price for the period being \$2.03/kg.

Income:

Bulls (260 kg C.W.) 68 @ \$2.03 per kg \$35,890.40

TOTAL INCOME \$35,890.40

Expenditure:

Weaner Bulls (100 kg)	72 @	\$280		\$20,160.00
Animal Health				
Drench (6x)	420 @	\$0.40 / dose	\$168.00	
Pour on (3x)	70 @	\$1.20 / dose	\$84.00	
	70 @	\$2.50 / dose	\$175.00	
	70 @	\$3.50 / dose	\$245.00	
Cobalt injection	70 @	\$0.85 / dose	\$59.50	\$731.50
Copper Bullet	70 @	\$2.40	\$168.00	\$250.00
Five in Onc (2x)	140 @	\$0.22	\$30.80	
Transport				
Weaners to Farm	72 @	\$7.88	\$567.36	
Finished Bulls to Works	68 @	\$14.28	\$971.04	\$1,538.40
Levies - AHB, Federated Farmers, NZMB				
	68 @	\$13.23 per head		\$899.64

TOTAL DIRECT COSTS	\$23,579.54
TOTAL GROSS MARGIN (before interest)	\$12,310.86
GROSS MARGIN per dollar invested in cattle	\$0.34
<u>GROSS MARGIN per Stock Unit</u>	<u>\$30.78</u>

**Gross Margin per Stock Unit at Various
weaner and bull prices**

		BULL SCHEDULE \$/kg		
		\$1.62	\$2.03	\$2.44
WEANER	\$238.00	\$20.39	\$38.34	\$56.28
PRICE	\$280.00	\$12.83	\$30.78	\$48.72
\$/HEAD	\$322.00	\$5.27	\$23.22	\$41.16

Interest and Feed Costs:

Interest on Capital Stock Value:		
\$36,200 @	8%	\$2,896.00
RETURN per stock unit (after interest)		\$23.54

TOTAL GROSS MARGIN (before feed costs and interest)	\$178,662
GROSS MARGIN per dollar invested in cattle	\$0.76
<u>GROSS MARGIN per Stock Unit</u>	<u>\$116.09</u>

**Gross Margin per Stock Unit at various
milk solids production levels and milk solids prices:**

		MILKSOLIDS PRICE \$/kg		
		\$3.02	\$3.35	\$3.69
kg	234	\$94.58	\$104.77	\$114.96
Milk solids	260	\$104.77	\$116.09	\$127.41
per cow	286	\$114.96	\$127.41	\$139.86

Interest and Feed Costs:

Interest on Capital Stock Value:			
\$234,200 @ 8%			\$18,736
Feed - Buy in 20% of total requirement (i.e. grazing off, hay etc)			
@ \$ 50.00		\$10,000	\$28,736
RETURN per stock unit (after interest and feed)			\$97.42

3.2.7 Deer - Finishing

RED DEER GROSS MARGIN

All Stag Policy - Buy in
weaners and kill at 18 months

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Weaner Stags	100 @	\$160	\$16,000	1.4	140
Dollar Investment in deer per stock unit			\$ 114.29		

Production Parameters:

Death rate. 3%
 Carcase weight at Slaughter (18 months) 55 kg
 Spiker velvet harvested; proceeds pay for cost of harvesting velvet from all stock

Income:

Stags, 55 kg	97 @	\$6.20 /kg	\$33,077.00
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Expenditure:

Weaner stags (50 kg L.W.)	100 @	\$225	\$22,500
Animal Health (per S.U.)	140 @	\$5.00	\$700.00
Freight	100 @	\$8.00	\$800.00
	97 @	\$11.50	\$1,115.50
Levies -			
GIB & AHB venison levy	5335 @	\$0.27 /kg	\$1,440.45
Meat inspection fee	97 @	\$7.00 /hd	\$679.00
			\$2,119.45

TOTAL DIRECT COSTS \$27,234.95

TOTAL GROSS MARGIN (before feed costs and interest) \$5,842.05

GROSS MARGIN per dollar invested in deer \$0.37

GROSS MARGIN per Stock Unit \$41.73

Note: Refer to table on the next page for the sensitivity analysis.

**Gross Margin per Stock Unit at Various
weaner purchase prices and venison schedule prices.**

		VENISON SCHEDULE \$/KG		
		\$5.58	\$6.20	\$6.82
WEANER	\$247.50	\$2.03	\$25.66	\$49.28
PURCHASE PRICE	\$225.00	\$18.10	\$41.73	\$65.36
\$/HEAD	\$202.50	\$34.17	\$57.80	\$81.43

Interest and Feed Costs:

Interest on Capital Stock Value:

\$16,000 @ 8% \$1,280.00

Winter Feed - Buy in additional hay and concentrates

@ \$12 per head \$1,200.00 \$2,480.00

RETURN per Stock Unit (after interest and feed)

\$24.01

Levies -

GIB & AHB Venison levy	3455 @	\$0.26 / head	\$898.30	
Meat inspection fee	62 @	\$7.00 / head	\$434.00	
GIB & AHB Velvet levy	15 @	\$3.30	\$49.50	\$1,381.80

TOTAL DIRECT COSTS \$7,350.30

TOTAL GROSS MARGIN (before interest) \$26,155.70

GROSS MARGIN per dollar invested in deer \$0.34

GROSS MARGIN per Stock Unit \$59.23

**Gross Margin per Stock Unit at Various
weaner hind prices and venison schedule prices.**

		VENISON SCHEDULE \$/kg		
		\$5.58	\$6.20	\$6.82
WEANER	\$144.00	\$52.96	\$57.67	\$62.38
HIND PRICE	\$160.00	\$54.52	\$59.23	\$63.94
\$/HEAD net	\$176.00	\$56.08	\$60.79	\$65.50

Interest and Feed Costs:

Interest on Capital Stock Value:

\$76,255 @ 8% \$6,100.40

Winter Feed - Buy in additional hay and concentrates

@ \$12 per head \$2,880.00 \$8,980.40

RETURN per Stock Unit (after interest and feed) \$38.89

Expenditure:

Weaner stags	12 @	\$225		\$2,700.00
Velvetting using veterinarian -				
1st cut	50 @	\$30	\$1,500.00	
2nd cut	15 @	\$25	\$375.00	\$1,875.00
Animal health				
Pour-on	100 @	\$2.61	\$261.00	
Copper bullet	50 @	\$4.50	\$225.00	\$486.00
Levies -				
Venison				
MAF inspection	10 @	\$7.00	\$70.00	
G.I.B.	1290 @	\$0.26	\$335.40	
Velvet G.I.B & AHB	96.8 @	\$3.30	\$319.44	\$724.84
TOTAL DIRECT COSTS				\$5,785.84
TOTAL GROSS MARGIN (before interest)				\$13,273.16
GROSS MARGIN per dollar invested in deer				\$0.51
<u>GROSS MARGIN per Stock Unit</u>				<u>\$114.52</u>

Gross Margin per Stock Unit at Various velvet prices and velvet yields.

		VELVET YIELD (kg for 50 stags)		
		82.28	96.80	111.32
AVERAGE	\$135.36	\$84.59	\$101.96	\$119.33
VELVET	\$150.40	\$95.27	\$114.52	\$133.78
PRICE	\$165.44	\$105.94	\$127.08	\$148.22
	\$/KG			

Interest and Feed Costs

Interest on Capital Stock Value:			
\$25,900 @	8%		\$2,072.00
Winter Feed - Buy in additional feed			
@	\$12 per head	\$600.00	\$2,672.00
RETURN per Stock Unit (after interest and feed)			\$91.47

3.2.10 Pig - Breeding

PIG GROSS MARGIN Housed Sows Selling Weaners

Capital Stock:

Sows	50 @	\$380	\$19,000	
Boars	2 @	\$700	\$1,400	\$20,400

Production Parameters:

Weaners sold per sow per year	20
Sow replacement rate	33%
Boar replacement rate	50%
Ratio of feed used to pigmeat sold (kg)	6.38
Meal cost as a percentage of total income	55%
Litters per sow per year	2.2

Income:

Weaners	1000 @	\$50.00	\$50,000.00	
Chopper Sows	15 @	\$160.00	\$2,400.00	
Chopper Boar	1 @	\$160.00	\$160.00	
TOTAL INCOME				\$52,560.00

Expenditure:

Replacement Stock Purchase -				
Boar	1 @	\$875.00	\$875.00	
Gilts	17 @	\$300.00	\$5,100.00	\$5,975.00
Home milled feed-				
Breeder (t)	62.7 @	\$360.00	\$22,572.00	
Creep (t)	2 @	\$700.00	\$1,400.00	
Weaner (t)	23.1 @	\$520.00	\$12,012.00	\$35,984.00
Animal Health	@	\$30.00	per Sow	\$1,500.00
Repairs to pens, feeders and water supply (in pen)				\$2,000.00
Electricity				\$2,000.00

TOTAL DIRECT COSTS	\$47,459.00
TOTAL GROSS MARGIN (before interest)	\$5,101.00
GROSS MARGIN per sow	\$102.02
<u>GROSS MARGIN per \$ invested in pigs</u>	<u>\$0.25</u>

**Gross Margin per Sow
at varying weaner prices and feed costs.**

		WEANER PRICE \$/HEAD		
		\$45.00	\$50.00	\$55.00
Average Feed Cost	\$450.82	(\$69.95)	\$30.05	\$130.05
Used \$/t	\$409.84	\$2.02	\$102.02	\$202.02
(Breeder Creep & Weaner)	\$368.86	\$73.99	\$173.99	\$273.99

Interest Cost:

Interest on Capital Stock Value			
\$20,400 @	8% per annum		\$1,632.00
Return per pig after interest			\$66.71

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	44 kg
- Bacon	65 kg
Ratio of feed used to pigmeat sold (kg)	3.67
Meal cost as a percentage of total income	43%
Purchase to finishing 13 weeks	
Buying 20 kg weaners	

Income:

Porkers	49 @	\$119.28		\$5,844.72
Baconers	926 @	\$168.26		\$155,808.76

TOTAL INCOME	\$161,653.48
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Expenditure:

Replacement stock purchase				
weaners	1000 @	\$50.00		\$50,000.00
Home milled feed -				
Grower mix (t)	191 @	\$392.00		\$74,872.00
Animal Health per weaner	@	\$2.00		\$2,000.00
Repairs - water supply (in-pen), pens and feeders				\$2,000.00
Electricity				\$2,000.00
Freight @ \$1 per weaner and \$3 per Porker/Baconer				\$4,000.00

TOTAL DIRECT COSTS	\$134,872.00
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TOTAL GROSS MARGIN (before interest)	\$26,781.48
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GROSS MARGIN per weaner	\$26.78
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<u>GROSS MARGIN per \$ Invested</u>	\$0.45
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**Gross Margin per Weaner
at various Baconer prices and feed costs**

		BACONER PRICE \$/head		
		\$151.43	\$168.26	\$185.09
Grower	\$431.20	\$3.71	\$19.29	\$34.88
Feed	\$392.00	\$11.20	\$26.78	\$42.36
\$/tonne	\$352.80	\$18.69	\$34.27	\$49.85

Interest Cost:

Interest on Capital Stock Value			
\$60,000 @	8% per annum (13 weeks)		\$1,200.00
Return per weaner after interest			\$25.58

3.2.12 Poultry - Eggs

POULTRY GROSS MARGIN

Egg Production

Capital Stock: (average value)

Laying Hens	1000 @	\$3.60	\$3,600.00
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Production Parameters:

24 dozen eggs per laying hen (laying life 12 months)

4 % Deaths (50% of deaths replaced during the year)

Income:

Eggs	24000 @	\$1.70	\$40,800.00
Salvage Value	980 @	\$0.05 per hen	\$49.00

TOTAL INCOME	\$40,849.00
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Expenditure:

Replacement Pullets	1020 @	\$7.20 per head	\$7,344.00
Feed	@	\$0.68 per dozen eggs	\$16,320.00
Power	@	\$0.02 per dozen eggs	\$480.00
Repairs to caging	@	\$0.02 per dozen eggs	\$480.00
Packaging, Freight to supermarket	@	\$0.20 per dozen eggs	\$4,800.00

TOTAL DIRECT COSTS	\$29,424.00
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TOTAL GROSS MARGIN per 1000 Hens (before interest)	\$11,425.00
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**Gross Margin per 1000 hens at various
feed and egg prices.**

		EGG PRICE \$ per dozen		
		\$1.53	\$1.70	\$1.87
FEED COST	\$0.75	\$5,713.00	\$9,793.00	\$13,873.00
per dozen eggs	\$0.68	\$7,345.00	\$11,425.00	\$15,505.00
produced	\$0.61	\$8,977.00	\$13,057.00	\$17,137.00

Interest Cost:

Interest on Capital Stock Value:			
	\$ 3,600 @	8%	\$288.00
RETURN per 1000 hens (after interest)			\$11,137.00

3.2.13 Poultry - Broiler

POULTRY GROSS MARGIN Broiler production

Production Parameters:

Farm Size (birds placed)	40000
Runs (per year)	5.5
Deaths	4.0%

Birds and feed are supplied by the company.

Income:

Birds	211200 @	\$0.463	\$97,785.60
Manure			\$4,216.00
TOTAL INCOME			\$102,001.60

Expenditure:

Power	5.5 @	\$1,710.00	\$9,405.00
Shavings	5.5 @	\$500.00	\$2,750.00
Cleaning	5.5 @	\$500.00	\$2,750.00
Insurance (Birds)	5.5 @	\$200.00	\$1,100.00
Repairs & Maintenance	5.5 @	\$1,500.00	\$8,250.00
TOTAL DIRECT COSTS			\$24,255.00
TOTAL GROSS MARGIN			\$77,746.60

3.3 CROP GROSS MARGINS

The following gross margins relate to an intensive cropping farm in Canterbury, on a medium soil type.

Care should therefore be taken when interpreting these results, as yield and cost estimates will differ according to each individual farm.

Assumptions made are: - All cultivation work carried out by the farmer.
- All spraying and harvesting done by contract.

Assistance in the preparation of these Gross Margins has been given by staff from the Farm Advisory Service, Lincoln University.

3.3.1 Wheat

WHEAT GROSS MARGIN

Spring wheat (Otane)

Income:

Per tonne delivered	6 t/ha	@	\$320.00	/tonne		\$1,920.00
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Expenditure (per hectare):

Cultivation -						
75 kW tractor -	3.4 hrs	@	\$17.03	/hour		\$57.22
(Fuel \$9.52/hr; R&M \$7.51/hr)						
Seed -	220 kg/ha	@	\$690.00	/tonne		\$151.80
Fertilizer -						
Cropmaster 20	100 kg/ha	@	\$429.00	/tonne	\$42.90	
Urea	150 kg/ha	@	\$481.00	/tonne	\$72.15	
Ammonium Sulphate	100 kg/ha	@	\$243.00	/tonne	\$24.30	\$139.35
Weed, Pest and Disease -						
Commando	4 l/ha	@	\$38.47	/litre	\$153.88	
Cougar	0.8 l/ha	@	\$38.00	/litre	\$28.50	
Glean	15 g/ha	@	\$1.35	/gram	\$20.25	
Cereous	0.5 l/ha	@	\$105.00	/litre	\$53.55	
Cycocel	1.5 l/ha	@	\$13.71	/litre	\$20.57	
Applications	4	@	\$27.00		\$108.00	\$384.75
Irrigation - 75 mm	2 x	@	\$28.00			\$56.00
(Electricity \$19.00; R&M \$9.00)						
Harvest -	6 t	@	\$28.00	/tonne		\$168.00
(in silo; contract)						

Freight - (silo to port 40 km)	6 t @ \$21.65 /tonne	\$129.90
TOTAL DIRECT COSTS		\$1,087.02
<u>GROSS MARGIN per Hectare</u>		<u>\$832.98</u>

**Gross Margin per Hectare at various
selling prices and yields.**

		YEILD Tonnes/ha		
		5.4	6	6.6
PRICE	\$288.00	\$497.97	\$640.98	\$783.99
PER	\$320.00	\$670.77	\$832.98	\$1,024.98
TONNE	\$352.00	\$843.57	\$1,024.98	\$1,206.39

3.3.3 White Clover

WHITE CLOVER GROSS MARGIN

(Kopu, specialist wide rows)

Income:

Clover (M.D.) 400 kg @ \$5.50 /kg \$2,200.00

Expenditure(per hectare):

Cultivation (direct drill into crop stubble) -

75 kW tractor - 0.84 hr @ \$17.03 /hour \$14.31
(Fuel \$9.52/hr; R&M \$7.51/hr)

Seed 3 kg/ha @ \$10.46 /kg \$31.38

Fertiliser

Cropmaster 20 50 kg/ha @ \$429.00 /tonne \$21.45

Urea 50 kg/ha @ \$481.00 /tonne \$24.05 \$45.50

Weed, Pest and Disease -

Roundup 1 l/ha @ \$13.50 /litre \$13.50

Phorate 5 kg/ha @ \$7.98 /kg \$39.90

Gallant 2.5 l/ha @ \$39.67 /litre \$99.18

Applications 2 @ \$27.00 \$54.00

Buster 5 l/ha @ \$30.94 /litre \$154.70

Inter row spray 1 @ \$35.00 /ha \$35.00

Reglone 3 l/ha @ \$19.53 /litre \$58.59

Application 1 @ \$27.00 \$27.00 \$481.87

Irrigation 75 mm 3 x @ \$28.00 \$84.00

(Elec. \$19.00; R&M \$9.00)

Mowing 1 ha/hr @ \$15.00 \$15.00

Harvest (contract) \$200.00

Freight 570 kg @ \$25.00 /tonne \$14.25

Seed Dressing 570 kg @ \$0.33 /kg \$188.10

TOTAL DIRECT COSTS \$1,074.40

GROSS MARGIN per Hectare \$1,125.60

**Gross margin per Hectare at
various selling prices and yields.**

		YEILD kg (MD)/Hectare		
		320	400	480
PRICE	\$4.95	\$549.36	\$905.60	\$1,261.84
\$/kg	\$5.50	\$725.36	<u>\$1,125.60</u>	\$1,525.84
	\$6.05	\$901.36	\$1,345.60	\$1,789.84

3.3.4 Ryegrass

RYEGRASS GROSS MARGIN (Embassy)

Income:

Seed (Machine Dressed) 1250 kg @ \$1.60 /kg			\$2,000.00
Straw 7 bales @ \$10.00 each			\$70.00
TOTAL INCOME			\$2,070.00

Expenditure(per hectare):

Cultivation -			
75 kW tractor - 2.94 hr @ \$17.03 /hour			\$50.07
(Fuel \$9.52/hr; R&M \$7.51/hr)			
Seed - 10 kg/ha @ \$4.00 /kg			\$40.00
Fertiliser -			
Cropmaster 20 100 kg/ha @ \$429.00 /tonne		\$42.90	
Urea (split appln.) 260 kg/ha @ \$481.00 /tonne		\$125.06	\$167.96
Weed, Pest and Disease -			
Roundup 2.5 l/ha @ \$13.50 /litre		\$33.75	
Trimec 3.5 l/ha @ \$13.68 /litre		\$47.88	
Commando 5 l/ha @ \$38.47 /litre		\$192.35	
Folicur 0.75 l/ha @ \$78.20 /litre		\$58.65	
Application costs 4 @ \$27.00		\$108.00	\$440.63
Irrigation (75 mm) 2 x @ \$28.00			\$56.00
(Elec. \$19.00; R&M \$9.00)			
Harvest - Windrow (contract) @ \$74.00 /ha		\$74.00	
Header (contract)		\$160.00	\$234.00
Freight - (F.D.) 1.5 t @ \$25.00 /tonne			\$37.50
Seed Dressing - 1500 kg @ \$0.16 /kg			\$240.00
TOTAL DIRECT COSTS			\$1,266.16
<u>GROSS MARGIN per Hectare</u>			<u>\$803.84</u>

**Gross margin per Hectare at
various selling prices and yields.**

		YEILD kg (MD)/ Hectare		
		1125	1250	1375
PRICE	\$1.44	\$451.59	\$603.84	\$756.09
\$/kg	\$1.60	\$631.59	\$803.84	\$976.09
	\$1.76	\$811.59	\$1,003.84	\$1,196.09

3.3.5 Field Peas

FIELD PEAS GROSS MARGIN (Marrowfat)

Income:

Peas 4 t @ \$460.00 /tonne \$1,840.00

Expenditure (per hectare):

Cultivation -

75 kW tractor - 2.94 hr @ \$17.03 /hour \$50.07
(Fuel \$9.52/hr; R&M \$7.51/hr)

Seed 290 kg/ha @ \$613.00 /tonne \$177.77

Fertilizer -

Superphosphate 125 kg/ha @ \$168.00 /tonne \$21.00

Weed, Pest and Disease -

Tropotox Plus 2 l/ha @ \$9.50 /litre \$19.00

Bladex 2.5 l/ha @ \$18.70 /litre \$46.75

Topas 300 ml/ha @ \$101.00 /litre \$30.30

Applications (contract) 2 @ \$27.00 \$54.00 \$150.05

Irrigation (75 mm) 2 x @ \$28.00 \$56.00
(Elec. \$19; R&M \$9)

Windrow @ \$74.00 /ha \$74.00

Harvest - 4 t/ha @ \$45.00 /tonne \$180.00
(in silo; contract)

Freight - (40 km) 4 t/ha @ \$21.65 /tonne \$86.60

TOTAL DIRECT COSTS \$795.49

GROSS MARGIN per Hectare \$1,044.51

Gross Margin per Hectare at various selling prices and yields.

		YEILD Tonnes/ha		
		3.2	4	4.6
PRICE	\$391.00	\$509.03	\$768.51	\$963.12
PER	\$460.00	\$729.83	\$1,044.51	\$1,280.52
TONNE	\$529.00	\$950.63	\$1,320.51	\$1,597.92

3.3.6 Vining Peas

VINING PEA GROSS MARGIN

Income:

Peas	6 t	@ \$265.00	\$1,590.00
Pea vine - bales (net)	50	@ \$3.50	\$175.00
TOTAL INCOME			\$1,765.00

Expenditure (per hectare):

Cultivation -			
75 kW tractor -	2.94 hr	@ \$17.03 /hour	\$50.07
(Fuel \$9.52/hr; R&M \$7.51/hr)			
Seed -	260 kg/ha	@ \$1.40 /kg	\$364.00
Fertilizer -			
Ammophos 8.15.15.1	150 kg/ha	@ \$496.00 /tonne	\$74.40
Weed, Pest and Disease -			
Bladex	2.5 l/ha	@ \$18.70 /litre	\$46.75
Tropotox Plus	2 l/ha	@ \$9.50 /litre	\$19.00
Application (combined; contract)			\$27.00
Irrigation - 75 mm	3	@ \$28.00	\$84.00
(Elec. \$19.00; R&M \$9.00)			
Harvest - Purchaser of peas			\$0.00
Freight - " " "			\$0.00
TOTAL DIRECT COSTS			\$665.22
<u>GROSS MARGIN per Hectare</u>			<u>\$1,099.78</u>

Gross Margin per Hectare at various changes in yield.

		YEILD Tonnes/ha		
		5.4	6	6.6
PRICE	\$212.00	\$654.58	\$781.78	\$908.98
PER	\$265.00	\$940.78	\$1,099.78	\$1,258.78
TONNE	\$318.00	\$1,226.98	\$1,417.78	\$1,608.58

3.4 PROCESS CROPS - PRODUCTION COST MODELS

Editors' note:

The following production cost models (compiled June 1995) have been kindly provided by the *Process Sector of the N.Z. Vegetable and Potato Growers Federation (Inc.)*. 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.

3.4.1 Green Beans (Source: N.Z. Vegetable and Potato Growers Federation (Inc.))

GREEN BEANS (PROCESS)

Production Cost Model 1994/95

Canterbury District

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Liming - 2.5 t/ha every 5 years	0.5 t/yr	\$32.00 /t	\$16.00
Pre-work - grubbing 3 times	1.5 hrs	\$55.81 /hr	\$83.72
Preparation seedbed			
roll once	0.4 hrs	\$47.82 /hr	\$19.13
plough once	1.1 hrs	\$64.61 /hr	\$71.07
maxitill 3 times	1.2 hrs	\$55.81 /hr	\$66.97
roll once	0.4 hrs	\$47.82 /hr	\$19.13
Pre-emergence spray contract		\$18.00 /ha	\$18.00
Treflan	2.1 l	\$12.13 /l	\$25.47
Sowing contract		\$110.00 /ha	\$110.00
seed	110 kg	\$6.36 /kg	\$699.60
fertiliser - Cropmaster 15	0.375 t	\$465.33 /t	\$174.50
Post emergence spray contract		\$18.00 /ha	\$18.00
Basagran	2 l	\$37.15 /l	\$74.30
Cittowet	0.1 l	\$10.48 /l	\$1.05
ground spray contract		\$18.00 /ha	\$18.00
Topsin	2.5 l	\$36.62 /l	\$91.55
ground spray contract		\$18.00 /ha	\$18.00
Sumisclex	2 l	\$46.71 /l	\$93.42
Irrigation 5 times	30 hrs	\$20.11 /hr	\$603.30
TOTAL GROWING COSTS			\$2,221.20
REVENUE			
Price received* (11.5-12mm) per tonne	\$300	\$300	\$300
Crop yield paid weight (tonnes per ha)	8	9	10
TOTAL REVENUE	\$2,400	\$2,700	\$3,000
Less growing Costs (from above)	\$2,221	\$2,221	\$2,221
SURPLUS	\$179	\$479	\$779

* Editors' Note: See also Section 1.12.2 for further contract price information

3.4.2 Sweetcorn (Source: N.Z. Vegetable and Potato Growers Federation (Inc.))

SWEETCORN (PROCESS)
Production Cost Model 1994/95
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	\$65.00 /t	\$81.25
Preparation seedbed			
plough once	1.1 hr	\$64.61 /hr	\$71.07
disc and harrow once	1 hrs	\$55.81 /hr	\$55.81
power harrow twice	1.5 hrs	\$81.38 /hr	\$122.07
level once	0.4 hrs	\$55.81 /hr	\$22.32
Sowing contract		\$65.00 /ha	\$65.00
seed	12 kg	\$19.80 /kg	\$237.60
nitro 12:10:10	0.3 t	\$691.00 /t	\$207.30
Pre emergence spray			
contract boom spray		\$28.00 /ha	\$28.00
Roustabout	3 l	\$37.80 /l	\$113.40
Post emergence spray			
aerial spray contract		\$28.00 /ha	\$28.00
Hallmark 1 time	0.5 l	\$94.00 /ha	\$47.00
Inter-row cultivation contract		\$30.00 /ha	\$30.00
Maintenance of Land			
flail stubble once	1 hr	\$55.81 /hr	\$55.81
TOTAL GROWING COSTS			\$1,164.64
REVENUE			
Price received* per tonne	\$119	\$119	\$119
Crop yield paid weight (tonnes per ha)	15	17	19
TOTAL REVENUE	\$1,785	\$2,023	\$2,261
Less growing Costs (from above)	\$1,165	\$1,165	\$1,165
SURPLUS	\$620	\$858	\$1,096

* Editors' Note: See also Section 1.12.2 for further contract price information

3.4.3 Tomato Transplants (Source: N.Z. Vegetable & Potato Growers Federation (Inc.))

TOMATO TRANSPLANTS (PROCESS)

Production Cost Model 1993/94

(Updated information was not available as at February 1996)

Hawkes Bay/Heretaunga Plains 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>
Pre-work - hoe once	1.6 hrs	\$66.27 /hr	\$106.03
Ground preparation			
plough once	1.6 hrs	\$40.38 /hr	\$64.61
roll once	0.6 hrs	\$35.33 /hr	\$21.20
disc and harrow twice	1.3 hrs	\$40.38 /hr	\$52.49
rollatill twice	1.3 hrs	\$40.38 /hr	\$52.49
roll once	0.6 hrs	\$35.33 /hr	\$21.20
deep till once	1.6 hrs	\$40.38 /hr	\$64.61
rollatill once	0.6 hrs	\$40.38 /hr	\$24.23
Form bed - contract twice		\$50.00 /ha	\$100.00
herbicide - contract		\$86.00 /ha	\$86.00
Triflur (2.8l/ha on 25% area)	0.7 l	\$13.32 /l	\$9.32
Transplanting/1000 plants	22000 plts	\$25.00 /1000	\$550.00
plants/1000	22000 plts	\$35.00 /1000	\$770.00
Water plants	1 hr	\$45.22 /hr	\$45.22
Fertiliser - Super	0.31 t	\$303.55 /t	\$94.10
Post emergence spray	1.3 hr	\$45.22 /hr	\$58.79
Decis	0.1 l	\$65.31 /l	\$6.53
Weeding contract	20 hrs	\$8.50 /hr	\$170.00
Weed spray contract		\$86.00 /ha	\$86.00
Triflur (2.8 l/ha on 90% area)	2.5 l	\$13.32 /l	\$33.30
Cultivation - contract 4 times		\$65.00 /ha	\$65.00
fertiliser - ammo 12:10:10	0.15 t	\$660.32 /t	\$99.05
Weeding contract	30 hrs	\$8.50 /hr	\$255.00
Post-emergence spray 10 times	7 hrs	\$50.28 /hr	\$351.96
sprays (details not included here)		\$529.03 /ha	\$529.03
Ripening spray	0.7 hrs	\$50.28 /hr	\$35.20
Ethrel	3 l	\$54.37 /l	\$163.11
Irrigation twice	15 hrs	\$38.16 /hr	\$572.40
TOTAL GROWING COSTS			\$4,486.87
REVENUE			
Price received* per tonne	\$112	\$112	\$112
Crop yield paid weight (tonnes per ha)	55	63	70
TOTAL REVENUE	\$6,160	\$7,056	\$7,840
Less growing Costs (from above)	\$4,487	\$4,487	\$4,486.87
SURPLUS	\$1,673	\$2,569	\$3,353

* Editors' Note: See also Section 1.12.2 for further contract price information.

3.4.4 Asparagus (Source: N.Z. Vegetable and Potato Growers Federation (Inc.))

ASPARAGUS (PROCESS)

Production Cost Model 1993/94

(Updated information was not available as at February 1996)

Hawkes Bay/Heretaunga Plains

<u>Growing Costs Operation</u>	<u>Hours/Qty</u> <u>Hectare</u>	<u>Unit</u> <u>Rate</u>	<u>Total Cost</u> <u>\$ per ha</u>
Fern chopping twice	5 hrs	\$40.38 /hr	\$201.90
Liming - 2.5 t/ha every 2 years	1.25 t/yr	\$35.00 /t	\$43.75
Working up			
disc twice	1.6 hrs	\$40.38 /hr	\$64.61
rollatill three times	2.4 hrs	\$40.38 /hr	\$96.91
subsoil	1.2 hrs	\$40.38 /hr	\$48.46
rollatill twice	1.6 hrs	\$40.38 /hr	\$64.61
Fertiliser - application	0.6 hrs	\$35.33 /hr	\$21.20
30% P Super (incl.freight)	0.25 t	\$303.55 /t	\$75.89
Cultivation - Twice	1.7 hrs	\$35.33 /hr	\$60.06
Spraying - twice		\$31.50 /ha	\$63.00
weedazol	11.2 l	\$12.18 /l	\$136.42
krovar	2.5 l	\$48.12 /l	\$120.30
Fertiliser application	0.6 hrs	\$35.33 /hr	\$21.20
ammo 12:10:10 (incl.freight)	0.25 t	\$660.32 /t	\$165.08
TOTAL GROWING COSTS			\$1,183.39
REVENUE			
Price received 1st grade* per tonne	\$2,150	\$2,150	\$2,150
Crop yield paid weight (tonnes per ha)	2	2.5	3
TOTAL REVENUE	\$4,300	\$5,375	\$6,450
Less harvesting costs:			
Picking per tonne	\$464		
Assembling and loading per tonne	\$86		
Cartage per tonne	\$50		
Total	\$600	\$1,200	\$1,500
Total		\$1,500	\$1,800
Less growing Costs (from above)	\$1,183	\$1,183	\$1,183.39
SURPLUS	\$1,917	\$2,692	\$3,467

* Editors' Note: See also *Section 1.12.2* for further contract price information.

3.5 EXPORT 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

Income: (Based on effective planted area at full production with a conservative yield and an export price averaged over a range of varieties.)

TCE per hectare	2300	\$10.22	\$23,506.00
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(TCE = Tray Carton Equivalent)(61% packout)

Expenditure (per hectare):

Fertiliser		\$280.00	
Chemicals		\$2,040.00	
Casual wages - pruning	\$420.00		
- thinning	\$750.00		
- picking	\$2,640.00		
- packing	\$670.00	\$4,480.00	
Packing cost		\$2,970.00	
Freight		\$520.00	
TOTAL DIRECT COSTS			\$10,290.00
GROSS MARGIN PER HECTARE			\$13,216.00
<u>GROSS MARGIN per Tray Carton Equivalent</u>			<u>\$5.75</u>

3.5.2 Export Kiwifruit

EXPORT KIWIFRUIT GROSS MARGIN

Income: (Based on effective planted area at full production)

Trays per hectare (net of cool storage and levies)	5100 /ha @	\$4.20	\$21,420.00
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Expenditure (per hectare):

Fertiliser		\$530.00	
Pollination		\$600.00	
Spraying and Chemicals		\$1,150.00	
Casual Wages - Pruning	\$2,700.00		
- Picking	\$970.00	\$3,670.00	
Grade and Pack		\$8,160.00	
Freight		\$800.00	
TOTAL DIRECT COSTS			\$14,910.00
GROSS MARGIN PER HECTARE			\$6,510.00
<u>GROSS MARGIN per Tray</u>			<u>\$1.28</u>

3.6 EXPORT FLOWERS

3.6.1 Export Calla Lilies (*Zantedeschia*)

CALLA LILY GROSS MARGIN

10,000 Mixed size tuber, selling flowers and exporting tubers

Tuber Stock: (average value)

Mixed Sized tubers 10000 @ \$ 1.70 \$17,000

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 @ \$1.20	\$6,000.00	\$15,750.00

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	@	\$10.00	\$200.00
- machinery hire	6 hrs	@	\$40.00	\$240.00

Lifting and Grading

- labour	250 hrs	@	\$10.00	\$2,500.00
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Lifting

- machinery hire	5 hrs	@	\$50.00	\$250.00
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Washing, Curing and Storing 70 trays (1250mm x 900mm)

(contract)	70	@	\$15.00	\$1,050.00	\$4,240.00
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Fertilizer \$150.00

Weed Control \$250.00

Pest and Disease \$550.00

TOTAL DIRECT COSTS \$9,528.75

TOTAL GROSS MARGIN per 10,000 Tubers (before interest) \$6,221.25

GROSS MARGIN per dollar invested in Calla Tubers \$0.37

**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
PRICE OF FLOWERS/ TUBERS	\$0.90 /	\$3,789.86	\$4,787.63	\$5,785.39	
	\$1.08				
	\$1.00 /	\$5,080.13	\$6,221.25	\$7,362.38	
	\$1.20				
	\$1.10 /	\$6,370.39	\$7,654.88	\$8,939.36	
	\$1.32				

Interest Costs

Interest on Capital invested in Tubers
\$17,000 @ 8% \$1,360.00

RETURN per 10,000 tubers after interest \$4,861.25

TAXATION

Contributed by:

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NOTE:

At the time of writing (December 1995), there are a number of proposed income taxation changes which have yet to be enacted as legislation, and may ultimately differ from those originally announced.

This manual details both the current 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 Budget Manual without further reference, including professional advice where appropriate.

4.1 INTRODUCTION

4.1.1 Tax Legislation

This section of the manual sets out some of the more important requirements for Income Tax, Fringe Benefit Tax and Goods and Services Tax. Information regarding Gift Duty is set out in Section 5.

The law relating to tax in New Zealand includes the Income Tax Act 1994, the Tax Administration Act 1994 and the Goods and Services Tax Act 1985. The Income Tax Act also sets out the requirements for some other taxes, including Fringe Benefit Tax. Only selected aspects of the taxation law have been included in this section, and caution must be exercised when applying those guidelines to a particular circumstance. If in doubt, your accountant, or financial adviser should be consulted.

4.1.2 Recent changes to the legislation

In recent years there have been rapid and dramatic 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; and simplify the tax system and make it more certain.

As part of this process, both the Income Tax Act 1976 and the Inland Revenue Department Act 1974 have been repealed and replaced with the Income Tax Act 1994, the Tax Administration Act 1994, and the Taxation Review Authorities Act 1994, with effect from the commencement of the 1996 income year.

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 new legislation is 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 was no intention to change existing income tax law or current interpretation of that law.

One aspect that has changed is the introduction of a binding rulings regime. Under this regime, the Commission of Inland Revenue will be able to issue rulings regarding the interpretation of tax law which will bind the IRD in future decisions. For example, the IRD could issue a ruling regarding the tax implication of a proposed business transaction. Rulings can be classified as public rulings, product rulings, and private rulings. Product and private rulings will be 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.

In addition, the tax legislation is being rewritten in plain English in order to make it more readable.

With respect to farming, the scope of changes to the tax legislation during 1995 was 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. There is an air of inevitability concerning changes to tax legislation, and where appropriate, details of these changes have been incorporated into the relevant section.

4.2 THE INCOME TAX SYSTEM

4.2.1 Overview

The New Zealand income tax system operates under a voluntary compliance procedure in which each taxpayer is responsible for declaring his or her own income, calculating the tax due, and paying it. There are penalties for taxpayers who do not comply.

Refer to *Section 4.15.2* for the rates of income tax.

Income tax is collected throughout the year by either the PAYE, withholding tax, or provisional tax systems. After the income year has finished, each taxpayer should complete the appropriate annual Return of Income and file it with the Inland Revenue Department. An assessment is issued to the taxpayer.

A taxpayer can object to his or her income tax assessment. There are strict requirements for objections in the Income Tax Act and other legislation. Anyone contemplating objecting is advised to seek professional advice.

4.2.2 PAYE (Pay As You Earn) Tax on Personal Income

Under the PAYE system, source deductions of tax are made by employers. Employees (and contractors in some cases) are required to complete an IR12 or IR13 tax code declaration. The information in the IR12 or IR13, is used by the employer to help establish how much tax should be deducted. The tax deducted is paid over to the Inland Revenue Department.

The PAYE system applies to salaries, wages, and withholding payments.

Salary or wages - the amount of tax depends on the amount of payment and the tax code shown on the IR12. Tax tables to calculate the amounts to be deducted are published by the Inland Revenue Department (IR 184X).

For secondary employment and extra emoluments, such as back pay or bonuses, PAYE tax is deducted at a flat rate of 28%. Extra emoluments includes redundancy payments made after 29 November 1992.

Withholding payments are payments under contract where there is not an employer-employee relationship. Withholding tax should be deducted when business payments are made to self-employed individuals. Common types of payment and the appropriate tax rates are specified on the back of the IR 13 form and include:

	%
Company directors' fees	33
Cleaners	20
Honoraria	33
Shearers	25
Shearing shed hands	20

Failure to provide an IR 13 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. Due dates depend upon the type of employer.

'Small' employers - those whose deductions did not exceed \$100,000 in the preceding year - make one payment by the 20th of the month following the month when the deductions were made.

'Large' employers - deductions exceed \$100,000 in the preceding year - make two payments each month. Payments are due on the 20th of the month (for tax deducted from payments made from the first 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).

Each year the employer is required to complete the pay details on the tax deduction certificates and give the yellow (bottom) copy to the employee by 20 April. The top copies, together with a completed Annual Reconciliation Form (IR68), must be sent to the Inland Revenue Department by 31 May each year.

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 (RWT, sometimes called 'interest PAYE' or 'dividend PAYE') was introduced in 1989. It is deducted by businesses which pay interest or dividends to clients/shareholders. The rates are 24% for interest and 33% for dividends. For the 1992-93 and subsequent income years, the rate of deduction for interest will be 33% where the recipient does not provide their IRD number to the payer of the interest.

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.

It is not necessary to deduct RWT from interest on private borrowings. However, businesses which pay more than \$5,000 p.a. of interest to people or organisations which do not hold Certificates of Exemption, are required to deduct resident withholding tax. This situation will apply to some farmers and other businesses who have borrowed money privately.

Institutions which deduct resident withholding tax from interest are required to provide taxpayers with RWT certificates by 20th May each year. The certificates, together with dividend notices showing RWT credits, 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 source deduction tax (such as PAYE or RWT) taken from it. 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, or the income earned, is adjusted in the next year.

Provisional tax payers pay provisional tax in one of three ways:

- 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 one instalment (3rd instalment date) if their RIT was less than \$2,500 last year but more than \$300,000 this year (and the taxpayer is not a new provisional taxpayer).
- 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, 'additional tax' of 10% is added to the amount payable. Additional tax is increased by a further 10% (compounding) for each six month period that the tax remains unpaid.

Penalties may be due on provisional tax which is underestimated, and some taxpayers are also required to pay interest on the difference between provisional tax paid and the actual tax for the year.

Provisional Tax is Calculated as Follows:

- Based on previous year's tax

The current year's provisional tax is 105% of the previous year's residual income tax. (Residual income tax is effectively total tax minus PAYE deductions, withholding tax deductions, other source deductions and tax credits). If the previous year's tax return has not been completed when a provisional tax payment falls due, the provisional tax is 110% of the tax liability of the year before last (i.e. 2 years ago) with an adjustment to be made in subsequent provisional payments.

Note: Taxpayers who expect their current year's residual income tax to exceed \$300,000 are not permitted to base provisional tax on the amount paid last year.

- Estimated or re-estimated by the taxpayer

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.

If the taxpayer is obliged to pay provisional tax, and the amount paid is less than 80% of the actual residual income tax required for the year, an under-estimation penalty is

payable. The amount payable is 10% of the difference between the actual tax and greater of the provisional tax paid or the amount estimated.

Interest on Underpaid or Overpaid Tax

Interest calculated on a daily basis, is charged (paid) on the difference between total provisional tax and the actual tax liability subsequently calculated in the tax return i.e. on the terminal tax (refund due) in the following circumstances:

- (a) Underpaid tax
All provisional taxpayers except individuals whose residual income tax is less than \$30,000 and who did not estimate their provisional tax. The interest rate is 14.2% p.a. for the 1996 and subsequent income years.
- (b) Overpaid tax
All provisional taxpayers except individuals whose residual income tax exceeds \$30,000 and who did not estimate their provisional tax. ('Residual income tax' has a slightly wider definition for the purposes of calculating interest on overpaid tax). The interest rate is 8.5% p.a. for the 1996 and subsequent income years.

Interest charges commence on the first instalment date if their RIT is over \$30,000. If the taxpayer's RIT is \$30,000 or less, interest charges are calculated from the date of the third instalment.

Provisional Tax Example

Mr J. Smith is a farmer, with a personal income from his farm and from casual work for a local contractor. His total income is \$53,875. Total tax due in his 31 March 1996 tax return is:

Tax on total income	\$15,000
Less rebates	<u>50</u>
Tax payable	\$14,950
Less PAYE deductions	<u>1,000</u>
RESIDUAL INCOME TAX	\$13,950
Less 1996 provisional tax already paid	<u>10,000</u>
TERMINAL TAX	<u>\$3,950</u>

His 1995-96 terminal tax payment will be due on 7 February 1997. Because his residual income tax is less than \$30,000 and he did not estimate his provisional tax, he is not subject to interest on the terminal tax due.

The above details assume Mr Smith pays his provisional tax on the basis of the previous year's tax. If, however, the provisional tax paid (\$10,000 in the example) was based on an estimate, he would be required to pay various additional amounts. These would include a penalty, since the provisional tax (\$10,000) is less than 80% of actual residual income tax (\$13,950). The penalty would be 10% of the difference, or \$395. Using the estimate basis would also mean that interest at 14.2% p.a. (on a daily basis) from 7 March 1996 to 7 February 1997 would be due on his terminal tax payment (interest of \$518 in this example).

For the 1997 year, his provisional tax will be based on the 1996 residual income tax plus 5%, a total of \$14,648 (\$13,950 plus 5%). The provisional tax payments for 1997 are due as follows:

7 July 1996 (one third)	\$4,883
7 November 1996 (one third)	\$4,883
7 March 1997 (one third)	\$4,882

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.

A *pay-period taxpayer* has the option of not filing a tax return, in which case the PAYE tax already deducted is not adjusted. If a tax return is filed, the amount of tax payable is the lesser of the PAYE tax already deducted, or the tax assessed in the tax return. A pay-period taxpayer is a person whose income is:

- (a) from employment and/or interest and dividends (i.e. has PAYE tax deducted at source), and is
- (b) below an amount which varies according to the source of income. These amounts are relatively small so that most salary and wage earners do not qualify as pay-period taxpayers.

Shearers, shearing shed hands, absentees, taxpayers eligible for the family support tax credit and national superannuitants, etc are excluded from treatment as pay-period taxpayers.

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.

IR5 For natural persons whose only income is New Zealand sourced income from salary or wages, extra emoluments or resident withholding income and does not include withholding payments or beneficiary income. An IR5 should also be used by persons who derive investment income but whose residual income tax liability does not exceed \$2,500.

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.

Although there are penalties for filing returns after the due date, in practice these have usually only applied in extreme cases, e.g. where a number of years' returns are overdue.

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 deduct the tax already paid, as PAYE, withholding tax or provisional tax, during the income year. The Inland Revenue Department then issues an assessment notice to the taxpayer. Possible results 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 20th day of the eighth month after balance date. 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 object to a tax assessment. The objection must be in writing and within two months. It is advisable to get professional help if you are making an objection. If the Inland Revenue Department disallows your objection, you may request a hearing by the Taxation Review Authority or in the High Court, but the request must be made within two months from the date the objection is disallowed.

In many cases, where an objection is made to an assessment, one half of the tax in dispute may be deferred until the final liability is determined. This means both the taxpayer and the Department have the use of some of the money in dispute until the case is resolved. After the objection is determined, the taxpayer or the Inland Revenue Department, whichever loses, must pay interest on this money on a daily basis.

4.2.7 Penalties

Penalties include fines, additional tax or penal tax, and, in very rare cases, jail.

PAYE Offences

Failing to deduct PAYE or withholding tax or to pay it to the Inland Revenue Department is regarded as a serious offence. There is a maximum fine of \$15,000 (\$25,000 for re-offending). In addition this is one of few areas carrying possible imprisonment, for up to 12 months.

Late Payment

Where any tax is paid late, a penalty called 'additional tax' is added to it. This increases the amount by 10%, and a further 10% (compounding) is added every six months. Additional tax applies to provisional tax, terminal tax, PAYE, withholding tax etc.

Tax Returns and Other Offences

Failing to provide information required by the Commissioner of Inland Revenue carries a fine of \$2,000 (increasing for re-offenders).

Giving false information, or making a false tax return can lead to a fine of \$15,000 (\$25,000 for re-offenders). These penalties can apply to officers of companies as well as to the company itself.

Tax Evasion

Taxpayers who evade tax can be fined and charged penal tax, which is a maximum of three times the amount of tax evaded. The Inland Revenue Department assesses the amount of penal tax to be charged in accordance with guidelines. One factor taken into account is the taxpayer's co-operation with the Department. Offences connected with concealing income from overseas investments or trusts carry an additional potential penalty of a fine of up to \$50,000 and imprisonment for up to two years.

4.3 CALCULATING TAXABLE INCOME - OVERVIEW

The following concepts are important:

Income is not defined in the Income Tax Act, and anything which appears to be income is likely to be taxable. The Income Tax Act specifically sets out a large number of items that must be treated as income, and some items for which there are exemptions.

Deductions are only allowed if they come under a specific section of the Act. This includes a general rule that allows the deduction of expenditure incurred in producing assessable income, or in operating a business to produce assessable income. However, there are many special rules which set out limits on particular kinds of deduction.

4.4 CALCULATION OF TAXABLE INCOME - INDIVIDUALS

4.4.1 Overview

Individuals are required to file IR3 or IR5 returns (depending on their sources of income - see *Section 4.2.5, Returns of Income*), and 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: 24% of the first \$30,875 earned, and 33% of income in excess of \$30,875.

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 tax return.

It is usual to find that the taxpayer 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

includes, among other sources:

1. Profits or gains derived from any business.
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. Profits or gains derived from the sale or disposition of property 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. These sections do not apply if the land has been held for more than ten years, nor if was used for 'substantial business' by the taxpayer, or as his or her residence.
- C. Where gains are partly due to a change in zoning (including expected zone 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 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 purposes of a business conducted from the land, or for the residence of the taxpayer, or for income from rents. It also does not apply if the land was less than 4,500m² and was occupied as the taxpayer's residence; and it does not apply where the taxpayer used the land primarily for farming or agriculture, and the subdivided land is capable of being worked as an economic unit, as a farming, or agricultural business.
- E. The development profit is taxable where there was significant expenditure in developing land for industrial, commercial or residential purposes. This section does not apply if the land was less than 4500m² and was occupied as the taxpayer's residence; or where the taxpayer used the land primarily for farming or agriculture and it is capable of being worked as economic units 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 'basic grant' which is paid by the N.Z. Government).

4.4.4 Deductions for Employees

Recipients of salary, wages and/or national superannuation, and casual agricultural employees, are no longer permitted to deduct employment related expenses.

However, there is one remaining category of deduction which still applies to most people. Expenses incurred in the determination 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 tax assessed. 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.

The principal rebates available to individuals for the current income year are:

Personal Tax Rebate for Child Taxpayer

Maximum \$156 per year.

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.

The rebate allows a child to effectively earn \$1,040 income from employment before becoming liable to income tax. (Including the Low Income Rebate.)

Transitional Tax Allowance

<u>Assessable Income</u>	<u>Rebate</u>
Up to \$ 6,240	\$728
\$6,241 - \$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

This is a rebate of nine cents for each dollar of assessable income, (with some exceptions), up to a maximum of \$855.00 (when income is \$9,500). If income is greater than \$9,500 the rebate reduces by four cents for each dollar of income. As a result the rebate does not apply to taxpayers whose income is over \$30,875.

The rebate is only allowed on income that does not comprise interest, dividends, royalties, rents, or income derived by a beneficiary under a trust. That is, it is allowed on wages, salaries and income as a self-employed person or partner in a business.

However, the rebate reduction of 4% applies to total income, including the categories that the rebate is not allowed on. But for National Superannuitants with incomes less than \$9,500, the rebate applies to all income items.

Housekeeper/Child Care Rebate

The lesser of \$310 or 33% of payments made.

This rebate is allowable for a housekeeper, or for childcare (at home, at a childcare centre, or any other institution). It is available, provided the child care services are necessary, because the taxpayer is a sole parent, or is disabled, or the care is necessary for business or employment, or when a housekeeper is required because of the taxpayer's disability.

Donations

The lesser of \$500 or 33 $\frac{1}{3}$ % of payments made.

Donations must be for a minimum of \$5 and made to approved charities. School fees are no longer eligible for this rebate.

Receipts must be furnished in support of the rebate claimed.

Visitors from Overseas 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

Other Rebates

There are also a few other rebates which apply in special circumstances. These include rebates for First World War pensioners and for savings in special home, farm and fishing vessel ownership savings accounts (although no new accounts may be opened).

4.4.6 Tax Credits

Tax credits are paid to the taxpayer as a benefit paid by the Social Welfare Department. (Previously, tax credits could also be paid through the tax system). 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 credit schemes; the Family Support Tax Credit (FSTC) and the Guaranteed Minimum Family Income (GMFI), and both apply to taxpayers who have dependent children under 18 years of age (19 if attending school).

Family Support Tax Credit

The rates for the year ended 31 March 1996 are:

<u>Family income</u>	<u>Tax credit</u>
Under \$20,000	\$2,184 for the oldest dependent child, plus \$2,184 for additional dependent children born on or before 30 September 1977, plus \$1,820 for additional dependent children aged 13 to 18 years, plus \$1,404 for any additional dependent children under 13.
Between \$20,000 and \$27,000	The tax credit for 'under \$20,000' less 18% of the income above \$20,000.
Over \$27,000	The tax credit for 'under \$20,000', less \$1,260 and 30% of the income above \$27,000.

The tax credit is reduced if the taxpayer becomes ineligible to receive the tax credit throughout the income year.

Guaranteed Minimum Family Income Tax Credit

This tax credit is paid in addition to the Family Support Tax Credit for full-time employees with dependent children and a low 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 the amount remaining after deducting the family support tax credit from an amount calculated as:

$$(\text{Base amount} - \text{net specified income}) \times \# \text{ of weeks eligible} \div 52$$

The base amount is \$14,456, plus \$2,184 for the eldest dependent child, plus \$2,184 for additional dependent children born on or before 30 September 1977, plus \$1,820 for additional dependent children aged 13 to 18 years, plus \$1,404 for any additional dependent children under 13.

The Guaranteed Minimum Family Income tax credit and the Family Support tax credit is either paid by the Social Welfare Department, or is added to the year end tax refund. Final adjustments, if any, are made through the taxpayer's annual tax return.

Employees who may be eligible for these tax credits should in the first instance, contact the Inland Revenue Department.

Tax Credit Example

A married man with one child aged four derived the following income during the year ended 31 March 1996:

Salary (gross)	\$20,000
Interest- Savings Bank (\$1,000 gross less \$240 resident withholding tax)	760
Dividends received (with \$100 imputation credit attached)	300
PAYE tax deductions from his salary as per his IR12 were:	4,000

His wife earned \$600 in the same year.

Throughout the year he paid the following amounts:

Donations to Red Cross	30
Activity fees to school	70

His assessable income would be as follows:

Salary	20,000
Interest - Savings Bank (\$760 + \$240)	1,000
Dividends - (\$300 + \$100)	<u>400</u>

Total Assessable Income \$21,400

Total tax payable would be as follows:

Income tax on \$21,400 \$5,136

less rebates:

Donations
 Lesser of \$500 or $33\frac{1}{3}\%$ of \$30 \$10
 (school fees not eligible)

Low Income Rebate
 Maximum possible rebate \$855

Deduct 4 cents for each dollar
 by which income exceeds \$9,500
 (\$21,400-\$9,500 = \$11,900)

4% of \$11,900 \$476

\$379

Total rebates \$389

Total Tax payable \$4,747

His terminal tax would be calculated as:

Tax payable		\$4,747
less tax already paid:		
PAYE already paid	\$4,000	
Resident withholding tax paid	240	
Imputation credit	<u>100</u>	
		<u>\$4,340</u>
Terminal Tax		<u>\$407</u>

Note: Family Support Tax Credit. The man is not eligible for the Family Support tax credit as it is paid to the principal caregiver - assumed to be his wife, in this example. The amount of Family Support tax credit is calculated as:

<i>Family Income:</i>	<i>Husband</i>	\$21,400
	<i>Wife</i>	<u>600</u>
	<i>Total</i>	<u>\$22,000</u>

Tax Credit for one child: \$2,184

less abatement:

18% of excess over \$20,000
(i.e. 18% of \$2,000) 360

Family Support Tax Credit \$1,824

and would be included in the wife's tax return. This would result in a refund to the wife. Both tax returns (husband and wife) should be filed together.

Note: Guaranteed Minimum Family Income does not apply because net family income is above the threshold of \$16,640 for a one-child family.

4.4.7 Tax Surcharge (on National Superannuation)

National superannuitants are subject to an additional tax surcharge at the rate of 25% of income other than national superannuation and/or foreign social security pensions, in excess of a stated threshold. The amount of this threshold is \$6,240 per married couple or \$4,160 for a single superannuitant. (These amounts are to be raised in the near future.)

The tax surcharge is limited to a maximum of the net amount of national superannuation received by the taxpayer in that year.

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 basic rate of tax on income derived by New Zealand resident companies is 33%. (The rate for non-resident companies is 38%.) Taxable income generally means business profits (in the normal accounting sense). Adjustments are made for income and deductions that have special tax requirements, for example, depreciation. Under the imputation system, tax payable by a company can be available as a tax credit to the shareholders. Companies pay tax through the Provisional Tax System (see *Section 4.2.4*).

4.5.1 Imputation System

Dividends paid can be subject to imputation tax credits. This means that tax paid by the Company can be passed on as a tax credit to the shareholders.

In a simplified example:

Family Company Limited earns a taxable income of	\$100.00
Company tax payable (33%)	<u>33.00</u>
Profit after tax	<u>\$67.00</u>

The directors decide to declare a dividend of \$33.50. They have the option of deciding how much imputation tax credit can be attached to the dividend. There are limits to how much imputation credit can be attached to the dividend. The maximum imputation credit cannot be (a) more than the ratio of tax to income for the current tax rate, and it also cannot be more than (b) 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:

Maximum possible imputation credit is the total tax paid by the company:
\$33.00 - see (b) above.

The maximum possible imputation credit also cannot exceed the ratio multiplied by the dividend - see (a) above.

$$\$33.50 \text{ (dividend)} \times 49.25\% = \$16.50$$

The maximum imputation credit that can be distributed with this dividend is \$16.50.

The remainder of the tax paid can be carried forward (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	\$33.50
plus imputation credit advised on the dividend notice:	<u>16.50</u>
Total to be declared on the tax return along with other income	<u>\$50.00</u>
Tax on \$50.00 at 33% (maximum personal tax rate)	\$16.50
Deduct imputation tax credit advised by the company (as above)	<u>16.50</u>
	<u>\$0.00</u>

Additional tax to pay as a result of receiving a \$33.50 dividend is \$0.00.

The company must maintain an Imputation Credit Account (ICA)

This account will include:

CREDITS:

- All Company tax payments for the 1988-89 and subsequent income years;
- Balances brought forward from previous years (but only from 1988-89 and later)
- Dividends received with imputation credits attached

less DEBITS

- Imputation credits transferred to shareholders;
- 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 back 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 can be passed on as a credit to shareholders. As a result, if a company has enough imputation credits, and decides to distribute them, then dividends received should not result in extra tax to pay.

Resident Withholding Tax

Resident withholding tax (refer *Section 4.2.3*) must also be deducted from dividends at a rate of 33%, but any imputation credits are offset against the amount to be deducted.

4.5.2 Bonus Issues

A company can now elect to treat a bonus issue as either taxable or non-taxable. Non-taxable bonus issues made by companies remaining registered under the Companies Act 1955 will have no tax effect, but they may increase paid-up capital. Under the

Companies Act 1993, a non-taxable bonus issue also has no tax effect, but does not result in the capitalisation of company reserves i.e. is equivalent to a share split.

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 in the company must remain constant from the beginning of the year of loss to the end of year of carry forward.
- Losses must be offset in the same order as incurred.
- Losses incurred prior to the 1992-93 income year may be carried forward provided the previous 40% continuity test is satisfied in respect of the period from the beginning of the year of loss to the end of the year when offset against profits, and the new continuity test (49%) has been satisfied from the beginning of the 1992-93 income year.

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 Now Taxable

As from the commencement of the 1993 income year, dividends received by a company will become taxable. Dividends received from a foreign company do not add to assessable income but are subject to a foreign dividend withholding payment. (33% of gross dividend less any foreign withholding tax paid.)

4.5.6 'Closely-held' Companies

With effect from the 1992-93 income year, closely held companies may elect to be taxed as though they are a partnership.

Criteria to become 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. Concessional rates may apply, however.

The major advantages and disadvantages of electing to become a Qualifying Company are as follows:

Advantages

- Capital gains are distributed tax free.
- Tax losses are allocated to shareholders. (Certain additional criteria must be met.)
- Concessional rates on distribution of old reserves.

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

Tax is paid on a partnership's income by the individual partners. A partnership is not a taxpaying entity and is not itself liable to pay tax, although tax must still be paid on its income. The partnership must file a separate partnership return of income (IR7) covering its joint income (or loss), a copy of the accounts, and detailing its distribution among the partners. Each partner must file an annual return declaring their portion of the partnership income. Accounts should also 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, often including trusts for infants, has been a common device for splitting income among family members, thereby reducing the income affected by high tax brackets.

To counteract loss of revenue through this type of income splitting, the Income Tax Act lays down a number of requirements before a family partnership is deemed to be acceptable for taxation purposes:

- There must be a contract of partnership in writing or by deed signed by all parties;
- No partner can be under 20 years of age when the agreement is signed;
- The agreement must bind the partners for at least three years;
- Each partner must have real and effective control of their share of remuneration and real and effective liability for their share of losses; and
- The remuneration payable to any relative must not constitute a gift.

Where the above requirements are not satisfied and 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. (Note that the distinction between 'specified trusts' and 'other trusts' has now been abolished.)

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 *Beneficiaries' Income* where the trustee acts as the agent of the beneficiary (although the primary liability remains with the beneficiary).

In the case of *Beneficiaries' 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.

Trustees' Income is any income which is not distributed as *Beneficiaries' Income* and the trustee is assessed for tax at 33 cents per dollar.

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 Classification of Income

Income derived by a trust during an income year is classified either as *Beneficiaries' Income* or as *Trustees' Income*.

Beneficiaries' 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.

Any other income not coming within the above is Trustees' Income.

It should be noted that the test for Beneficiaries' Income stresses the 'vesting absolutely in interest' of the income, that is the funds being paid or credited to the beneficiary.

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, that is:

	SALES
<i>less</i>	PURCHASES and OTHER BUSINESS EXPENSES
<i>plus or minus</i>	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 4.8.3*).
- 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. (Capital plus interest.)
- Income from the sale of timber, including standing timber and trees planted for agricultural purposes. Income may be spread over the year of sale and up to three preceding years.
- 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.

Note: For a business registered for GST purposes, GST collected on sales is not regarded as assessable income.

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:

- Legal expenses incurred in arranging finance for the purchase, or lease of income producing assets.
- Legal expenses incurred in borrowing or renewing loan moneys employed as capital in the production of assessable income.
- Telephone (excluding personal toll calls).
- Proportion of car expenses (including depreciation) applicable to business use, on the basis of the ratio of business usage to total usage. This ratio is derived from details kept in a log book 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 is limited to 25% of the car expenses.
- 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.
- Accommodation supplied to employees:
 - ◇ Supplied to all employees except a partner-manager: depreciation at appropriate rate(s) and all expenses (e.g. mortgage interest, repairs, maintenance, etc.) are deductible in full. (The value of board and lodging to the employee is treated as part of his or her assessable income and subject to PAYE tax deductions).
 - ◇ Supplied to a partner/manager: the partnership can claim 25% of the costs of the dwelling.

- One quarter of total expenditure on the farm dwelling if situated on the farm - e.g. repairs and maintenance, depreciation, domestic power etc.
- Depreciation - see *Section 4.8.4*.
- Development Expenditure - see *Section 4.8.5*.
- Repairs and Maintenance costs on stock yards, sheep dips, fencing and any other income producing assets.
- 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.

These amounts are treated as income to the farmer's spouse.

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, IR12 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.

- Cost of transporting employees' children to school. The cost of transporting the farmer's own children is regarded as private and therefore not deductible.

- Accident Compensation Premiums (refer to *Section 4.15.7*).
- ‘Income spreading’ schemes. Taxable income may be altered by shifting the year when certain expenditures (such as fertiliser application) can be claimed as a deduction. Farm income may also be shifted to subsequent years under the Income Equalisation Scheme - see *Section 4.8.8*.

Prepaid expenditure is required to be accounted for on a progressive basis over the financial year. However, for practical reasons, smaller items of expenditure can still be treated as a lump sum expense.

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.

Rent for a higher amount, or paid for in advance over more than six months, must be carried forward and deducted in the following year. Details are set out in *Section 4.15.6, Accrual Rules for Expenditure*.

- Protective clothing, e.g. wet weather gear, spray masks etc.

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 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 detailed in a taxpayer's accounts (or tax return). The value 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 the trading stock at:

- Cost price; or
- Market selling value; or
- Replacement price.

In practice, the lowest of the three possible values is generally the most advantageous for taxation. Livestock is valued according to special rules (see next page).

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 would be fully deductible in the year the expenditure is incurred, even although some unconsumed stocks may be held at the end of the year.

However, if the value of all unused consumables on hand at balance date exceeds \$58,000, then the original expenditure cannot be treated as a lump sum expense, but must be spread over the period(s) when they are actually used. Refer to *Section 4.15.6, Accrual Rules for Expenditure*.

Growing Crops, Fruit and Vegetables

Crops, fruit and vegetables and other products which grow from the land and are attached to the land are regarded as part of the land itself, i.e. a capital asset. Growing crops are not regarded as trading stock unless and until they are harvested or severed from the land.

Valuation of Livestock (Refer also to Sections 4.15.4 and 4.15.5.)

Farmers who farm sheep, cattle, deer, pigs or goats ('specified livestock'), are required to value their livestock for taxation purposes using the methods prescribed by the Income Tax Act. Between 1987 and 1992 the available methods were the trading stock scheme, the herd scheme, or the cost price scheme (the first two schemes were based on average market values while the third represents the lower of actual accumulated costs or market value). For 1993 and subsequent years, the trading stock scheme has been replaced by the national standard cost scheme. The existing herd scheme, cost-price scheme, and high-priced purchased livestock scheme have all been retained with some modification.

For livestock other than bloodstock and specified livestock (sheep, cattle, deer, pigs and goats), the valuation options are (i) cost price, market value or replacement price, and (ii) standard value as agreed by the Tax Department (a fixed value which stays the same for each category of stock from year to year; and differing from the standard values for specified livestock - see below).

Valuation of Sheep, Cattle, Deer, Goats and Pigs

The valuation options available are:

- (i) Herd Scheme
- (ii) Cost - National Standard Cost
- Self Assessed Cost
- (iii) Market Value or Replacement Price.

In addition, the High Priced Livestock Scheme must be used where relevant livestock qualify.

(i) Herd Scheme

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.

Changes introduced for the 1993 income year increased the flexibility of the herd scheme while maintaining its basic philosophy.

All classes of livestock are eligible for the herd scheme. The farmer can now select (i) the classes of livestock, and (ii) the number of animals within each class, which are to be valued under the herd scheme. 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. Refer to *Section 4.15.4*, for the 1993, 1994 and 1995 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.

As a result, the three year spreading provisions previously associated with the herd scheme have been abolished.

Movement out of the herd scheme or a change to the percentage level of herd values requires notification 2 years prior to the change.

Deferrable income from the 1991 and 1992 income years must be spread under the original provisions, as follows:

Deferrable income from homebred herdstock:

For 1991 and 1992, 30% of the unrealised income arising from an increase in the size of, or changes in the composition of, the herd may be spread equally over the year of change and the two succeeding years. The concession applies only to female herd livestock which is more than 1 year old at balance date. 'Unrealised income' is calculated as the end herd value less the sum of the beginning herd value and the cost of purchase or capture of herd livestock that year. A deduction is not permitted if the unrealised income is negative.

Deferrable income from new herdstock:

Income arising from entry into the herd scheme during 1992 is also eligible to be spread over 3 years. The amount of spreadable income for that class of new herdstock is calculated as the lesser of opening and closing numbers multiplied by the difference between the herd value for the year of entry and the average closing value for the previous year.

(ii) Cost

National Standard Cost

The National Standard Cost (NSC) option is a simplified way of calculating the cost of livestock produced on a farm.

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 standard costs will be announced annually by the Tax Department as:

- breeding, rearing and growing (BRG) costs of rising 1 year livestock of each type;
- rearing and growing (RG) costs for rising 2 year livestock of each type except pigs;
- rearing and growing costs for 3 year male cattle.

The average cost of livestock purchased must also be included in order to determine the final cost per head. Thus, average cost will be specific to each farmer.

Only one cost option may be operated at any one time.

Example calculations (indicative costs only).

Example 1 Homebred sheep

Year 1:	BRG costs from IRD	\$13.00 per head
	Value per head = \$13	
Year 2:	R1 year value	\$13.00 per head
	RG ₂ costs from IRD	\$8.00 per head
	Value per head = \$21	

Example 2 Rising 1 year stock

No of lambs bred	1000
No of lambs purchased	400
Average purchase price	\$25 per head
BRG costs from IRD	\$13 per head

Calculation:

Homebred lambs	1000 @ \$13	\$13,000
Purchased lambs	<u>400 @ \$25</u>	<u>10,000</u>
	<u>1400</u>	<u>\$23,000</u>

$$\begin{aligned} \text{Average cost of lambs} &= \$23,000 \div 1400 \\ &= \$16.43 \text{ per head} \end{aligned}$$

Note: BRG costs relate to homebred stock only.

No rearing and growing costs are assigned to purchased stock in the year of purchase.

Cost per head is an average over all stock of that class.

Example 3 Rising 2 year stock

NB: The year following example 2.

No of hoggets at start of year	400
Cost of hoggets at start of year	\$16.43
Sheep purchased (not R1 class)	200 @ \$30 each
RG ₂ costs from IRD	\$8 per head

Calculation:

Hoggets at start of year	400 x \$16.43	\$ 6 572
Rearing & growing costs	400 x \$8	3 200
Purchases	<u>200 x \$30</u>	<u>6 000</u>
	600	\$15 772

$$\begin{aligned} \text{Average cost of mature sheep} &= \$15 772 \div 600 \\ &= \$26.29 \text{ per head} \end{aligned}$$

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

$$\begin{aligned} & = (\text{Start nos} - \text{sales and deaths}) \times \text{last year's cost} \\ & = (2000 - 600) \times \$25 \qquad \qquad \qquad \$35,000 \end{aligned}$$

Cost of this year's intake

$$\begin{aligned} & = 700 \times \$26.29 \qquad \qquad \qquad \underline{18,403} \\ & \qquad \qquad \qquad \qquad \qquad \qquad \underline{\$53,403} \end{aligned}$$

$$\begin{aligned} \text{Average cost per head} & = \$53,403 \div 2100 \\ & = \$25.43 \text{ per head} \end{aligned}$$

Note: The actual formulae are more complex than these examples show. Farmers should seek professional advice.

Section 4.15.4, details the National Standard Costs for 1994 and 1993 respectively. *Section 4.15.5*, provides example calculations for the herd scheme and the National Standard Cost scheme.

Self Assessed Cost

The revised Self Assessed Cost (SAC) option simplifies the current guidelines for calculating the actual cost of producing livestock.

The SAC option uses basically the same methodology as that used for NSC, but will have higher compliance costs because of the record keeping requirements and the need for complex calculations.

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.

Self assessed cost cannot be used for stock currently in the herd scheme.

Farmers considering the Self Assessed Cost scheme should seek professional advice.

(iii) Market Value or Replacement Price

Market value is the estimated selling price of the livestock, as determined by a stock agent.

Replacement price is the cost of buying an animal of the same size, age, and breed.

Market value/replacement price can be used as an alternative when using either of the cost options.

Changing between Schemes

- Movement into the herd scheme may be undertaken at any time. 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.
- Movement out of the herd scheme will require two years prior notice.
- Changes to the percentage level of herd values will also require two years prior notice.
- Increases in stock numbers in any herd class valued under the herd scheme can be valued under an alternative valuation option.
- Movement between one of the cost schemes and the market value/replacement price options is unrestricted and may be undertaken on a year to year basis for each inventory group.
- Movement between the National Standard Cost and the Self Assessed Cost schemes will require two years prior notice.
- The National Standard Cost scheme and the Self Assessed Cost scheme are mutually exclusive - i.e. either the NSC or the SAC scheme may be used, but not both.

Transitional Measures

Any income arising as a result of the scheme changes and adjustments in the 1992-93 income year may be spread over a maximum of 5 years. Income may arise from movements into the herd scheme, adoption of herd values other than 100% of the declared market value, or a change from any current valuation method to cost (NSC or

SAC), market value or replacement price. The lesser of the 1992-93 assessable income and the spreadable revaluation income (net of any losses carried forward), may be spread over a 5 year period commencing 1992-93 income year. A minimum of 20% must be returned as income in any one year.

Further information on the livestock valuation options, including comments on the factors which farmers should consider, is contained in MAF Policy Technical Paper 92/18, *The 1992 Livestock Valuation Review*.

High-Priced Livestock

High priced livestock are in a separate class for valuation purposes. ‘High priced’ means that the purchase price is at least \$500 and exceeds by 5 times the higher of the previous year’s or the current year’s declared National Average Market Value for that class of livestock.

High priced livestock are valued at cost less a write down for ‘depreciation’. Depreciation may be calculated using the straight line method or the diminishing value method. The rate depends on the type of animal, as follows:

Livestock Category	Straight Line Rate (%)	Diminishing Value Rate (%)
Sheep	25	33
Cattle	20	26
Stags	20	26
Other deer	15	22
Goats	20	26
Pigs	33	40

An election to adopt the diminishing value method of depreciation is irrevocable.

There are restrictions on the closing value for the first income year. Where the livestock is owned for less than six months and is not used for breeding purposes, or is less than one year old at balance date, the closing value must be cost price (i.e. is not depreciated).

Once high-priced animals have been depreciated to the NAMV for that class, they will be included in the other valuation schemes operated by the farmer i.e. transferred out of the High Priced Livestock scheme.

Livestock taxation examples are illustrated in Section 4.15.5.

Taxation of Bloodstock

All bloodstock is to be valued at cost price. Stud stallions may be written down to \$1 over a period of five years, while broodmares 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. There are transitional provisions for horses raced before the 1987-88 accounting year.

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%). These revised provisions apply to bloodstock purchased and first used after 15 December 1991.

Adjustments to cost price used for depreciation occur where breeding bloodstock is raced rather than used for breeding purposes. Expenditures add to this cost, income received reduces the cost. Expenditures and losses incurred in racing bloodstock, or preparing bloodstock for racing are not tax deductible unless incurred to train a horse for a 'ready to race' sale, or where a horse is trained for another taxpayer.

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.

4.8.4 Depreciation (See also *Section 4.8.5 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. 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 (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.

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 valued 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 \$2,000.
- (ii) Assets depreciated in the 1993 income year using the 'globo accounting method' may be pooled. All assets must be in the same pool. The globo accounting method is no longer available.
- (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) ÷ 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 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 - Expenditure prior to 1 July 1993 is fully deductible as an expense. 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.

- (i) 1993 and earlier income years.
The cost of basic stock is neither deductible nor depreciable.
Costs of replacement items (max \$250) was deductible.
- (ii) 1994 and subsequent income years.
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.

Depreciation Regime for 1995-96 and Future Years

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 4.15.8*.

Assets Acquired During the Income Year

Buildings - Depreciation is allowable on the cost of the building only (excluding land). If no separate values of land and buildings purchased are available, the total cost is apportioned, often using the amounts shown in the latest government valuation as an indication. Depreciation is allowed in proportion to the number of months the building has been owned.

Other assets - A full year's depreciation is allowable if the asset was used for more than six months of the year or more than half a season if used for seasonal work; otherwise half of a year's depreciation is allowable.

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.

Interim Depreciation Regime

An interim regime was announced on 16 December 1991 which increases the rates of depreciation by 25% for the following assets purchased and first used after 15 December 1991:

- new depreciable assets except buildings
- imported second-hand assets, excluding cars
- primary sector land improvements
- bloodstock used for horse-breeding.

The increased rates will apply until the 1993-94 income year. In addition, fruit trees and vines which are scrapped can be written off as tax-deductible.

Interim rates are listed in *Section 4.15.8*.

Summary of Depreciation Methods

Date Used	Type	Rate
Before 16/12/91	All assets	Schedule
16/12/91 - 31/03/93	NZ new assets	Interim
	Used assets	Schedule
1/4/93 - 31/3/95	NZ new assets	Interim or Economic
	Used assets	Schedule or Economic
1/4/95 onwards	NZ new assets	Economic + Loading
	Used assets	Economic

Rates are:

Schedule: Depreciation regime prior to 1994 income year.

Interim: Schedule rate multiplied by 1.25.

Economic: Rate set under the new regime.

Economic + Loading: Economic rate multiplied by 1.20.

4.8.5 Expenditure on Land Improvements (Development Expenditure)

Expenditure on the following items may be deducted in full when incurred:

- The destruction of weeds or plants which are detrimental to the land.
- The destruction of animal pests detrimental to the land.
- The clearing, destruction and removal of scrub, stumps and undergrowth.
- The repair of flood or erosion damage.
- The planting and maintaining of trees for the purpose of preventing or combating erosion or providing shelter. (See also Tree Planting, below).

- The construction on the land of fences for agricultural purposes, including the costs of rabbit-proofing existing fences.

Other expenditures on land improvements 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*. Such expenditures qualify for the 25% loading in the 1993, 1994 and 1995 income years, and the 20% loading for 1996 and subsequent years.

Prior to the 1992 income year, development expenditures were apportioned between a tax-deductible amount and a depreciable asset. Details are contained in previous editions of the Financial Budget Manual.

Tree Planting

- Expenditure on trees planted for shelter and/or erosion control is fully deductible as 'development'.

Prior to the 1992 income year, such expenditure was deductible on a reducing scale with the proviso that the allowable deduction shall not be less than the lesser of \$7500 or the actual expenditure. Expenditure which was not eligible for immediate deduction was to be capitalised as Land Improvements and depreciated at 10% DV.

- Other tree planting excluding Forestry Encouragement activities and fruit trees.

Deduction calculated on a reducing scale, as in 1 above. Expenditure for 1992 and subsequent years is the lesser of \$7500 or actual expenditure. The non-deductible proportion was to be capitalised as Land Improvement and depreciated.

- Fruit trees - see *Section 4.9*.
- Forestry activities - see *Section 4.8.7*.

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 1996, 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 maintenanc \$1,000

4.8.6 Limitation of Tax Losses from Farming or Landowning

Prior to the 1991 income year, tax losses from holding property with a view to deriving rents, or other revenues, (and from farming activities if the losses were incurred from the 1984 to 1987 income years), could only be offset against other income up to a maximum of \$10,000 per annum. Losses above this limit had to be carried forward and deducted from other income in subsequent year(s), subject to the \$10,000 limit in each year. This limitation no longer applies to losses incurred in 1991 and all future income years.

4.8.7 Timber Sales and Farm Forestry

Income from the sale of timber, including standing timber and trees planted for agricultural purposes, but excluding ornamental or incidental trees, is assessable but may be spread over the year of sale and up to three preceding years.

Forest Development Expenditure

Any forestry business which held or owned land as at 12 December 1985 which was planted prior to 31 December 1986 may continue to deduct development expenditure until the end of the 1997 income year.

A 'new' forestry business will not receive this concession, but will be subject to the same rules as for farming (see *Section 4.8.5*). This requires that development expenditures be capitalised and depreciated at the rates set out in *Section 4.15.3*.

Forestry Planting and Maintenance

Any forestry business which held or owned land as at 12 December 1985 which was planted prior to 31 December 1986 may continue to deduct maintenance costs in full up to the end of the 1997 income year.

The ability of 'other' forestry businesses to deduct expenditures on planting and maintenance expenditure has been reducing on the same basis as for development (see above). The non-deductible proportion of such expenditures were to be capitalised to a 'cost of timber' account which can only be deducted when those trees are sold.

For the 1992 and subsequent years, expenditure on planting and maintaining trees is fully deductible. However, there has been no change to the requirement to depreciate costs capitalised to the cost of bush account over the 1988 to 1991 income years.

In addition, expenditure on the construction of access tracks which have a life of less than 12 months is fully deductible for the 1992 and subsequent years.

The following items will continue to be 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.

Individuals who derive assessable income from forestry qualify for the Income Equalisation Scheme. (Refer *Section 4.8.8* below).

Gross receipts from thinning operations carried out by a forestry company also qualify for the Income Equalisation Scheme.

4.8.8 Income Equalisation Schemes

Main Income Equalisation Scheme

This scheme allows a farmer to smooth 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 at the Reserve Bank. When amounts are withdrawn at a later date, they become assessable income.

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.

The minimum refund is \$200 unless the account balance is smaller; the maximum is the account balance.

Special rules apply where the refund is due to the retirement, death, or bankruptcy of the farmer.

Adverse Event Income Equalisation Scheme

This new 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. (4.7% before 20 April, 1995) 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.

4.9 CALCULATING TAXABLE INCOME - HORTICULTURE

The following provisions relate specifically to horticulture, but readers should also familiarise themselves with the farming provisions (*Section 4.8*).

Purchase of land, including conveyancing fees, is capital expenditure and is not deductible. However, legal fees incurred in arranging finance to purchase the land, or in arranging to lease the land, will be tax deductible.

Buildings are capital expenditure and are subject to depreciation allowances as for a farm (refer *Section 4.8.4*).

Expenditure on land improvements and development is subject to the same rules as for farming (refer *Sections 4.8.4* and *4.8.5*).

Purchase and planting of fruit trees - The cost of fruit trees is capital expenditure. The cost of planting fruit trees is regarded as a land improvement to be capitalised and depreciated (refer *Section 4.8.5*). The cost of fruit trees and vines which are scrapped may be written-off.

Expenditure on plants and planting for *asparagus* and *berrryfruits* (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.

Growing crops of fruit, vegetables etc. are a capital asset and are only regarded as trading stock when they are harvested or severed from the ground. Unharvested potatoes may be valued as inventory provided the taxpayer consistently follows this practice.

Valuation of Nursery Stock

- Mature plants - suitable for sale and severed from the land. Valued at cost price, market value or replacement price.
‘Cost’ can be estimated as :
 - ◇ 50% of selling price for plants propagated and grown in pots, trays, or bags.
 - ◇ actual cost for plants bought in from other growers.
 - ◇ nil value for plants which are still growing in the ground.
- Immature plants that are in pots or polyurethane bags may be valued at 10% of selling price. Otherwise they should be valued at nil.
- Pots and containers should be valued at cost price, market value or replacement price. (The lowest of these is normally used.)
- Plants purchased from other growers should be valued at actual cost.

Horticulturists qualify for the Income Equalisation Scheme (refer *Section 4.8.8*).

4.10 CALCULATING TAXABLE INCOME - FISHING INDUSTRY

The following provisions relate specifically to the fishing industry but readers should also familiarise themselves with *Section 4.8* which includes information about farming generally.

In general ‘fish’ includes shellfish and crustaceans.

4.10.1 Spreading of Repair Costs on Fishing Boats

Expenditure incurred in making repairs or alterations necessary to obtain a certificate of survey under the ‘Shipping and Seamen Act 1952’ may be deferred in whole or in part and claimed at the written election of the taxpayer in the year of expenditure and up to four succeeding years. The expenditure covers repairs and alterations to the hull, equipment or machinery, and must be ordinarily deductible as ‘repairs and maintenance’ (i.e. would not be regarded as capital expenditure).

4.10.2 Development Expenditure - Fish Farming

Development expenditure for rock oyster farming, mussel farming, scallop farming, sea-cage salmon farming, and freshwater fish farming, must be capitalised as an asset and depreciated at the rates set out in *Section 4.15.3, Land Improvements: Qualifying Expenditure and Depreciation Rates*, Parts III to VII. Refer also to *Section 4.8.4, Depreciation*.

Prior to the 1992 income year, development expenditures were apportioned between a tax-deductible amount and a depreciable asset (under the same regime as for farmers). Details are contained in previous editions of the Financial Budget Manual.

4.10.3 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 EXPORT INCENTIVES

No export incentives are available.

4.12 DISPOSITIONS OF MATRIMONIAL PROPERTY

Since 28 July 1983, one spouse may transfer matrimonial property to the other spouse under Section 21 of the Matrimonial Property Act 1976 without giving rise to a subsequent liability for income tax. Transfers of matrimonial assets made by Court order under Section 25 of the Matrimonial Property Act 1976 are totally exempt. (For Estate and Gift Duty provisions refer to Section 5.) The legislation basically allows assets to be transferred at book values rather than market values. In essence, the recipient of the matrimonial property is placed in the same position as the person who made the transfer.

Legislation of relevance to the agricultural sector regarding matrimonial transfers include the following:

- Transfers of land are deemed to be at the original purchase price which the taxpayer paid for the land. No profit on sale, needs to be included as part of income.
- Transfers of land with growing timber on it are regarded as a sale of timber, but may be transferred at cost price.
- Livestock is to be transferred at the same value as it appears in the books of the transferor.
- The rights of ownership of an asset will accompany the asset if it is transferred under a matrimonial agreement e.g. depreciation, recovery of depreciation upon disposal, etc.

4.13 FRINGE BENEFIT TAX

Fringe benefit tax (FBT) is a tax paid by employers on non-cash benefits that have been given to their employees. For example, an employer who provides a company car, cheap loan or other gifts may be required to pay FBT. Before this tax was introduced, these fringe benefits were used as a way of reducing tax.

4.13.1 General Provisions

Fringe benefit tax is calculated as 49% of the taxable value of fringe benefits provided to employees and is payable by the employer, usually at quarterly intervals.

For each quarter 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 quarter. 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.

For the 1993 and subsequent income years, employers who do not exceed \$100,000 PAYE and superannuation tax deductions in the previous year may elect to pay fringe benefit tax on an annual rather than a quarterly basis. Similarly, employers of shareholder - employees may also pay on an annual basis. Interest is payable when FBT is paid annually.

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.

4.13.2 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. Superannuation, retiring allowances or redundancy payments.
Retirement benefits are not subject to FBT but are assessable in the hands of the recipient.
(Prior to 1 April 1993, retirement benefits were subject to FBT, but were completely tax-free to the recipient.)
Superannuation contributions to 'Category 3' schemes, or non-monetary superannuation contributions are subject to fringe benefit tax.
Redundancy payments are not subject to FBT but are taxable in the hands of the recipient as an "extra emolument".
5. 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.

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).

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.

4.13.3 Calculation of Fringe Benefit Tax

The amount of fringe benefit tax payable is the taxable value of fringe benefit multiplied by the rate of FBT (49%).

The general formula is:

$$\begin{array}{r} \text{Value of fringe benefit} \\ \text{less } \underline{\text{employee's contribution}} \\ = \underline{\text{Taxable value of fringe benefit}} \end{array}$$

4.13.4 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 is generally set at 6% per quarter of the value of the vehicle. This value is reduced to take into account times when the vehicle is not available to be used privately, and contributions by the employee.

$$\text{Value of benefit} = \frac{\text{No. days available for private use (max 90)}}{90} \times Z$$

- 'Z' is 6% of - cost price of vehicle including GST; or
- market value of vehicle at commencement of lease, including 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 allocated 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 will 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.

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.

The prescribed rate is set out by Regulation and applies to loans made after 31 March 1985 and to loans made before 31 March 1985 with variable interest rates.

Prescribed interest rates for recent periods are:

Period	Rate %
1 July 1995 onwards	10.6
1 April 1995 to 30 June 1995	11.0
1 January 1995 to 31 March 1995	9.2
1 October 1994 to 31 December 1994	8.4

For loans made before 31 March 1985 with fixed interest rates, the rate to be used is obtained from the Income Tax (Fringe Benefit Tax, Interest on Loans) Regulations.

Subsidised 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.

4.14 GOODS AND SERVICES TAX (GST)

4.14.1 Overview

GST is a broad based tax on consumption, levied on virtually all goods and services (except financial services, domestic accommodation 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%. (It was 10% from 1 October 1985 to 30 June 1989.)

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 \$30,000 p.a. must register, and charge and account for GST. Registration is optional for traders having an expected taxable turnover of less than \$30,000 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) is partially exempt. GST is payable on 60% of the amounts charged.

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.

4.14.2 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 e.g. if the period covers the months of December 1992 and January 1993, and ends on 31 January 1993, then the return is due by the last working day in February 1993.

There is a penalty for late payment of additional tax to pay. GST unpaid after the due date attracts additional tax at the rate of 10% for the first month, and a further 2% for each extra month the tax remains unpaid.

GST is normally calculated on an invoice (accrual) basis. This means that GST on Sales (outputs) must be included in the GST return covering the month in which the sale is made. GST can be claimed on purchases (inputs) in the same month as they take place. There is an alternative method, the payments (cash) basis. Under the payments basis, GST on outputs is only due if cash has been received. GST inputs can only be included if they have been paid for. This basis may be adopted by:

- Public or local authorities
- Non-profit bodies
- Registered persons whose total taxable supplies are less than \$1 million.

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.

4.14.3 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:

Value of goods excluding GST:	\$100.00
Plus GST at 12.5%	<u>12.50</u>
Consideration (price) including GST	<u>\$112.50</u>

$$\text{Amount of GST included} = \frac{\text{GST rate}}{\text{Consideration including GST}}$$

$$= \frac{12.5}{112.50}$$

$$= \frac{1}{9}$$

The amount of GST included in the total consideration (\$112.50) is calculated by dividing by nine (result: \$12.50).

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 of Calculation

The GST payable by (or refundable to) a registered person for a return period is calculated as in the following example:

Calculation of 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>

Calculation of Input Tax:

Purchases/expenses (business related) -	
Total for which tax invoices are held, including GST	<u>\$5,400</u>
GST Content one ninth	600
Plus adjustments(e.g. business use of private vehicle)	<u>50</u>
<u>Total Input tax</u>	<u>\$650</u>
GST PAYABLE (Output Tax less Input Tax)	<u>\$550</u>

(The above example follows the format used in a Goods and Services Tax Return.)

Note: If output tax exceeds the input tax, the difference is paid to the IRD: if output tax is less than the input tax, the difference is refunded to the taxpayer, or it may be used to offset other amounts due to the IRD.

4.14.4 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>
		<u>\$1,736.56</u>
<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.

4.14.5 Tax Invoices

A 'tax invoice' must be held before GST paid on inputs can be claimed as a deduction.

The tax invoice is a document which contains details of the items supplied - namely:

- The words 'tax invoice' in a prominent place;
- The name, and registration number of the supplier;
- The name, and address of recipient;
- The date of issue of the tax invoice;
- A description of the goods and services supplied;
- The quantity/volume of the goods and services supplied;
- Either: the value excluding GST, the GST charged, and the GST-inclusive price; or the GST inclusive price and a statement that GST is included in the price.

A slightly simplified invoice may be used where the amount supplied is less than \$200.

Details required are:

- The word 'tax invoice';
- Name and registration number of supplier;
- Date of issue of the tax invoice;
- A description of goods and services supplied;
- The GST inclusive price and a statement that GST is included in the price.

No invoice is necessary if the amount supplied is less than \$50.

It is the responsibility of the supplier of the goods/services to issue a tax invoice. However, there is provision to allow the recipient (buyer) of such services to produce the tax invoice, provided the IRD agrees, both parties agree that the supplier will not issue the tax invoice, and that both parties receive a copy of the tax invoice. This provision has

significance for the rural sector where it is common for the buyer to create a document which evidences a sale e.g. a freezing works.

Where a registered person obtains second hand goods from a non-registered person, the purchase price is deemed to include a notional amount of GST (calculated by applying the tax fraction to the price paid).

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.

4.14.6 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.

* *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.

4.15 TAXATION APPENDICES

4.15.1 Tax Payment Dates

Months for Payment of Provisional and Terminal Tax

Provisional Tax

Month of balance date	First Instalment	Second Instalment	Third Instalment	Terminal tax
Oct 95	Feb 95	June 95	Oct 95	Sept 96
Nov 95	March 95	July 95	Nov 95	Oct 96
Dec 95	April 95	Aug 95	Dec 95	Nov 96
Jan 96	May 95	Sept 95	Jan 96	Dec 96
Feb 96	June 95	Oct 95	Feb 96	Jan 97
March 96	July 95	Nov 95	March 96	Feb 97
April 96	Aug 95	Dec 95	April 96	Feb 97
May 96	Sept 95	Jan 96	May 96	Feb 97
June 96	Oct 95	Feb 96	June 96	Feb 97
July 96	Nov 95	March 96	July 96	Feb 97
August 96	Dec 95	April 96	Aug 96	Feb 97
Sept 96	Jan 96	May 96	Sept 96	Feb 97

Note: Payment is due on the 7th day of the appropriate month.

4.15.2 Tax Rates

Rates of Income Tax for Individuals

1990 and subsequent income years

Up to \$30,875	24.0% of income
Over \$30,875	\$7,410.00 plus 33.0% of income over \$30,875

Rates of Tax for Companies

1990 and subsequent income years: 33% (38% for overseas companies)

4.15.3 Land Improvements: Qualifying Expenditure and 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 I: 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

Section 4.15.3 continued

PART II: 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 74(3A) (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 III: 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 IV: 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 V: 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 VI: 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 VII: 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

- Note:** (1) Section contents include livestock values for 1995, 1994 and 1993 income years.
 (2) Standard Value does not apply to 1993 or subsequent years.
 (3) All animals are eligible for inclusion in the herd classes for 1993 and subsequent years.

1995 Income Year:

National Standard Costs (1995)

Type of Livestock	Classes of Livestock	National Standard Cost
		\$
Sheep	Rising 1 year	16.10
	Rising 2 year	9.10
Dairy Cattle	Purchased bobby calves	142.00
	Rising 1 year	397.00
	Rising 2 year	68.70
Beef Cattle	Rising 1 year	131.00
	Rising 2 year	76.40
	Rising 3 year male non-breeding cattle (all breeds)	76.40
Deer	Rising 1 year	38.50
	Rising 2 year	19.70
Goats (Meat and Fibre)	Rising 1 year	12.10
	Rising 2 year	7.30
Goats (Dairy)	Rising 1 year	79.20
	Rising 2 year	12.40
Pigs	Weaners to 10 weeks of age	75.00
	Growing pigs 10 to 17 weeks of age	55.20

Section 4.15.4 continued

National Average Market Values (1995)

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
Sheep	Ewe hoggets	29.00
	Ram and wether hoggets	28.00
	Two-tooth ewes	38.00
	Mixed-age ewes (rising 3-year and 4 year old ewes)	33.00
	Rising 5-year and older ewes	25.00
	Mixed-age wethers	25.00
	Breeding rams	117.00
Beef Cattle	<i>Beef breeds and beef crosses:</i>	
	Rising 1-year heifers	215.00
	Rising 2-year heifers	333.00
	Mixed-age cows	412.00
	Rising 1-year steers and bulls	276.00
	Rising 2-year steers and bulls	410.00
	Rising 3-year and older steers and bulls	544.00
Breeding bulls	1,109.00	
Dairy Cattle	<i>Friesian and related breeds:</i>	
	Rising 1-year heifers	408.00
	Rising 2-year heifers	723.00
	Mixed-age cows	830.00
	Rising 1-year steers and bulls	192.00
	Rising 2-year steers and bulls	350.00
	Rising 3-year and older steers and bulls	489.00
	Breeding bulls	763.00
	<i>Jersey and other dairy breeds:</i>	
	Rising 1-year heifers	328.00
	Rising 2-year heifers	610.00
	Mixed-age cows	723.00
	Rising 1-year steers and bulls	115.00
	Rising 2-year and older steers and bulls	230.00
Breeding bulls	605.00	

Section 4.15.4 continued

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
Deer	<i>Red deer:</i>	
	Rising 1-year hinds	123.00
	Rising 2-year hinds	212.00
	Mixed-age hinds	255.00
	Rising 1-year stags	164.00
	Rising 2-year and older stags (non-breeding)	319.00
	Breeding stags	1,580.00
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising 1-year hinds	166.00
	Rising 2-year hinds	269.00
	Mixed-age hinds	321.00
	Rising 1-year stags	208.00
	Rising 2-year and older stags (non-breeding)	377.00
	Breeding stags	1,851.00
	<i>Other breeds:</i>	
	Rising 1-year hinds	43.00
	Rising 2-year hinds	76.00
	Mixed-age hinds	89.00
	Rising 1-year stags	59.00
Rising 2-year and older stags (non-breeding)	107.00	
Breeding stags	298.00	
Goats	<i>Angora and angora crosses (mohair producing):</i>	
	Rising 1-year does	34.00
	Mixed-age does	42.00
	Rising 1-year bucks (non-breeding)/wethers	15.00
	Bucks (non-breeding)/wethers over 1 year	21.00
	Breeding bucks	174.00
	<i>Other fibre and meat producing goats (Cashmere or Cashgora):</i>	
	Rising 1-year does	12.00
	Mixed-age does	16.00
	Rising 1-year bucks (non-breeding)/wethers	10.00
	Bucks (non-breeding)/wethers over 1 year	13.00
	Breeding bucks	87.00

Section 4.15.4 continued

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
	<i>Milking (dairy) goats:</i>	
	Rising one-year does	61.00
	Does over one year	104.00
	Breeding bucks	261.00
	Other dairy goats	114.00
Pigs	Breeding sows less than 1 year of age	195.00
	Breeding sows over 1 year of age	263.00
	Breeding boars	341.00
	Weaners less than 10 weeks of age (excluding sucklings)	40.00
	Growing pigs 10 to 17 weeks of age (porkers and baconers)	89.00
	Growing pigs over 17 weeks of age (baconers)	125.00

Section 4.15.4 continued

1994 Income Year:

National Standard Costs (1994)

Type of Livestock	Classes of Livestock	National Standard Cost
		\$
Sheep	Rising 1 year	13.30
	Rising 2 year	7.80
Dairy Cattle	Purchased bobby calves	135.00
	Rising 1 year	268.00
	Rising 2 year	68.20
Beef Cattle	Rising 1 year	116.00
	Rising 2 year	65.50
	Rising 3 year male non-breeding cattle (all breeds)	65.50
Deer	Rising 1 year	35.90
	Rising 2 year	18.60
Goats (Meat and Fibre)	Rising 1 year	10.10
	Rising 2 year	6.30
Goats (Dairy)	Rising 1 year	74.00
	Rising 2 year	10.80
Pigs	Weaners to 10 weeks of age	75.70
	Growing pigs 10 to 17 weeks of age	56.70

Section 4.15.4 continued

National Average Market Values (1994)

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
Sheep	Ewe Hoggets	39.00
	Ram and wether hoggets	35.00
	Two-tooth ewes	53.00
	Mixed-age ewes (rising 3-year and 4-year old ewes)	45.00
	Rising 5-year and older ewes	37.00
	Mixed-age wethers	33.00
	Breeding rams	138.00
	Beef Cattle	<i>Beef breeds and beef crosses:</i>
Rising 1-year heifers		333.00
Rising 2-year heifers		490.00
Mixed-age cows		637.00
Rising 1-year steers and bulls		426.00
Rising 2-year steers and bulls		605.00
Rising 3-year and older steers and bulls		749.00
Breeding bulls		1 551.00
Dairy Cattle	<i>Friesian and related breeds:</i>	
	Rising 1-year heifers	481.00
	Rising 2-year heifers	840.00
	Mixed-age cows	1 008.00
	Rising 1-year steers and bulls	364.00
	Rising 2-year steers and bulls	552.00
	Rising 3-year and older steers and bulls	723.00
	Breeding bulls	1 384.00
	<i>Jersey and other dairy cattle:</i>	
	Rising 1-year heifers	413.00
	Rising 2-year heifers	747.00
	Mixed-age cows	926.00
	Rising 1-year steers and bulls	254.00
	Rising 2-year and older steers and bulls	436.00
	Breeding bulls	1 219.00

Section 4.15.4 continued

Type of Livestock	Classes of Livestock	National Average Market Value	
		\$	
Deer	<i>Red deer:</i>		
	Rising 1-year hinds	111.00	
	Rising 2-year hinds	204.00	
	Mixed-age hinds	254.00	
	Rising 1-year stags	144.00	
	Rising 2-year and older stags (non-breeding)	254.00	
	Breeding stags	1 729.00	
		<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising 1-year hinds	147.00	
	Rising 2-year hinds	266.00	
	Mixed-age hinds	317.00	
	Rising 1-year stags	191.00	
	Rising 2-year and older stags (non-breeding)	333.00	
	Breeding stags	1 898.00	
		<i>Other breeds:</i>	
	Rising 1-year hinds	65.00	
	Rising 2-year hinds	88.00	
	Mixed-age hinds	101.00	
	Rising 1-year stags	65.00	
	Rising 2-year and older stags (non-breeding)	98.00	
	Breeding stags	324.00	
	Goats	<i>Angora and Angora crosses (Mohair producing):</i>	
		Rising 1-year does	19.00
		Mixed-age does	20.00
		Rising 1-year bucks (non breeding)/wethers	12.00
		Bucks (non-breeding)/wethers over 1 year	14.00
Breeding bucks		104.00	

Section 4.15.4 continued

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising 1-year does	16.00
	Mixed-age does	20.00
	Rising 1-year bucks (non-breeding/wethers)	13.00
	Bucks (non-breeding)/wethers over 1 year	16.00
	Breeding bucks	65.00
	<i>Milking (dairy) goats:</i>	
	Rising 1-year does	83.00
	Does over 1 year	96.00
	Breeding bucks	148.00
	Other dairy goats	45.00
Pigs	Breeding sows less than 1 year of age	188.00
	Breeding sows over one year of age	282.00
	Breeding boars	325.00
	Weaners less than 10 weeks of age (excluding sucklings)	44.00
	Growing pigs 10 to 17 weeks of age (porkers/baconers)	92.00
	Growing pigs over 17 weeks of age (baconers)	149.00

Section 4.15.4 continued

1993 Income Year:

National Standard Costs (1993)

Type of Livestock	Classes of Livestock	National Standard Cost
		\$
Sheep	Rising 1 year	13.00
	Rising 2 year	7.50
Dairy Cattle	Purchased bobby calves	119.00
	Rising 1 year	232.00
	Rising 2 year	58.50
Beef Cattle	Rising 1 year	109.00
	Rising 2 year	62.70
	Rising 3 year male non-breeding cattle (all breeds)	62.70
Deer	Rising 1 year	31.20
	Rising 2 year	18.10
Goats (Meat and Fibre)	Rising 1 year	9.90
	Rising 2 year	6.00
Goats (Dairy)	Rising 1 year	52.70
	Rising 2 year	9.70
Pigs	Weaners to 10 weeks of age	74.10
	Growing pigs 10 to 17 weeks of age	56.10

National Average Market Values (1993)

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
Sheep	Ewe Hoggets	40.10
	Ram and wether hoggets	40.60
	Two-tooth ewes	47.00
	Mixed-age ewes (rising 3-year and 4-year old ewes)	41.60
	Rising 5-year and older ewes	35.20
	Mixed-age wethers	35.10
	Breeding rams	151.70
Beef Cattle	<i>Beef breeds and beef crosses:</i>	
	Rising 1-year heifers	324.00
	Rising 2-year heifers	474.00
	Mixed-age cows	616.00
	Rising 1-year steers and bulls	427.00
	Rising 2-year steers and bulls	612.00
	Rising 3-year and older steers and bulls	757.00
	Breeding bulls	1 499.00
Dairy Cattle	<i>Friesian and related breeds:</i>	
	Rising 1-year heifers	451.00
	Rising 2-year heifers	799.00
	Mixed-age cows	917.00
	Rising 1-year steers and bulls	318.00
	Rising 2-year steers and bulls	521.00
	Rising 3-year and older steers and bulls	699.00
	Breeding bulls	1 030.00
	<i>Jersey and other dairy cattle:</i>	
	Rising 1-year heifers	393.00
	Rising 2-year heifers	693.00
	Mixed-age cows	824.00
	Rising 1-year steers and bulls	240.00
	Rising 2-year and older steers and bulls	460.00
	Breeding bulls	842.00

Section 4.15.4 continued

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
Deer	<i>Red deer:</i>	
	Rising 1-year hinds	123.00
	Rising 2-year hinds	232.00
	Mixed-age hinds	277.00
	Rising 1-year stags	188.00
	Rising 2-year and older stags (non-breeding)	310.00
	Breeding stags	1 999.00
	<i>Wapiti, elk, and related crossbreeds:</i>	
	Rising 1-year hinds	156.00
	Rising 2-year hinds	282.00
	Mixed-age hinds	329.00
	Rising 1-year stags	216.00
	Rising 2-year and older stags (non-breeding)	369.00
	Breeding stags	2 043.00
	<i>Other breeds:</i>	
	Rising 1-year hinds	60.00
	Rising 2-year hinds	98.00
	Mixed-age hinds	125.00
	Rising 1-year stags	83.00
	Rising 2-year and older stags (non-breeding)	120.00
Breeding stags	426.00	
Goats	<i>Angora and Angora crosses (Mohair producing)</i>	
	Rising 1-year does	24.00
	Mixed-age does	26.00
	Rising 1-year bucks (non breeding)/wethers	14.00
	Bucks (non-breeding)/wethers over 1 year	17.00
	Breeding bucks	124.00

4.15.4 continued

Type of Livestock	Classes of Livestock	National Average Market Value
		\$
	<i>Other fibre and meat producing goats (Cashmere or Cashgora producing):</i>	
	Rising 1-year does	17.00
	Mixed-age does	20.00
	Rising 1-year bucks (non-breeding/wethers)	13.00
	Bucks (non-breeding)/wethers over 1 year	14.00
	Breeding bucks	77.00
	<i>Milking (dairy) goats:</i>	
	Rising 1-year does	53.00
	Does over 1 year	64.00
	Breeding bucks	152.00
	Other dairy goats	34.00
Pigs	Breeding sows less than 1 year of age	149.00
	Breeding sows over one year of age	253.00
	Breeding boars	340.00
	Weaners less than 10 weeks of age (excluding sucklings)	45.00
	Growing pigs 10 to 17 weeks of age (porkers/baconers)	124.00
	Growing pigs over 17 weeks of age (baconers)	178.00

4.15.5 Livestock Taxation Examples

Note: Farmers should consult their accountant concerning the valuation options available.

1994-95 Income Year

	30 June 1995		30 June 1994	
	Nos.	NAMV	Nos.	NAMV
Ewe hoggets	920	\$29	910	\$39
2th ewes	750	\$38	730	\$53
3 & 4 year ewes	1420	\$33	1450	\$45
5 yr & older ewes	630	\$25	600	\$37
Rams	70	\$117	65	\$138

National Standard Cost	1995	1994
Rising 1 year sheep	\$16.10	\$13.30
Rising 2 year sheep	\$ 9.10	\$ 7.80

Cost of mature sheep (calculated in 1994) \$19.09

Livestock sales: \$44,000 (2000 lambs, 1200 mixed-age ewes)

Livestock purchases: 7,000 (395 mixed-age ewes plus 5 rams)

Natural increase 2,980 (survival to sale)

Deaths and missing 145

Herd Scheme

Note: All sheep are in the herd scheme.

1995 Opening Tax Values

Ewe hoggets	900	x	\$ 29*	\$26,390
2th ewes	730	x	\$ 38	27,740
3 & 4 yr ewes	1450	x	\$ 33	47,850
5 year & older ewes	600	x	\$ 25	15,000
Rams	65	x	\$117	<u>7,605</u>
				<u>\$124,585</u>

* Herd livestock are at end-of-year values.

1995 Closing Tax Values

Ewe hoggets	920	x	\$ 29	\$ 26,600
2th ewes	750	x	\$ 38	28,500
3 & 4 yr ewes	1420	x	\$ 33	46,860
5 year & older ewes	630	x	\$ 25	15,750
Rams	70	x	\$117	<u>8,190</u>
				<u>\$125,980</u>

Increase in taxable income due to changes in herd numbers
= \$125,980 - \$124,585
= \$1,395

Check

Herd value 30/6/95	\$125,980	
Herd value 30/6/94	<u>\$170,600</u>	(see 1993-94 example)
Decrease in value	<u>\$(44,620)</u>	

made up of:

Decrease in capital value of herd (\$170,600 - \$124,585)	\$(46,015)
Taxable income from increased numbers	<u>\$ 1,395</u>
Total decrease in value	<u>\$ 44,620</u>

Note: The base number for the alternative valuation options for 1996 will be the 1995 closing herd numbers.

Income from Livestock Operations

Sales	\$44,000
less purchases	<u>7,000</u>
Cash surplus	37,000

plus taxable increase in herd	<u>1,395</u>
Taxable income from sheep	<u>\$38,395</u>

Note: This income may be adjusted if the taxpayer has deferrable income from the 1992 income year.

National Standard Cost

Detailed formulae for calculating livestock values under the National Standard Cost scheme are contained in the Income Tax (National Standard Costs for Livestock) Determination 1994, reprinted as the Appendix to the Tax Information Bulletin Volume 5, No 11, April 1994. The formulae are complex and will not be detailed in this Budget Manual.

Using these formulae, the 1995 livestock values for tax purposes have been calculated as:

Ewe hoggets \$16.10
 Mature sheep \$19.95

1995 Opening tax values

Ewe hoggets	910	x	\$13.30	\$12,103.00
Mature sheep	2845	x	\$19.09	<u>54,311.05</u>
				<u>\$66,414.05</u>

1995 Closing tax values

Ewe hoggets	920	x	\$16.10	\$14,812.00
Mature sheep	2870	x	\$19.95	<u>57,256.50</u>
				<u>\$72,068.50</u>

Increase in taxable income = \$72,068.50 - \$66,414.05 = \$5,654.45

Income from Livestock Operations

Sales	\$44,000.00
less purchases	<u>7,000.00</u>
Cash surplus	37,000.00

plus taxable increase in stool	<u>5,654.45</u>
Income for 1995	42,654.45
plus Revaluation income deferred from 1993	<u>1,277.66</u>
Taxable income from sheep	<u>\$43,932.11</u>

1993-94 Income Year

	Nos.	N.A.M.V. (Herd Scheme)	Std. Value (Trading Scheme)
30 June 1993			
Ewe hoggets	900	\$40.10	\$13.00
2th ewes	700	\$47.00	\$18.39
3 & 4 yr ewes	1400	\$41.60	\$18.39
5 yr & older ewes	600	\$35.20	\$18.39
Rams	70	\$151.70	\$18.39

Note: NSC values for mature sheep were calculated for the 1992-93 income year.

30 June 1994		
Ewe hoggets	910	\$39
2th ewes	730	\$53
3 & 4 yr ewes	1450	\$45
5 yr & older ewes	600	\$37
Rams	65	\$138

National Standard Cost (1994)

Rising 1 year sheep	\$13.30
Rising 2 year sheep	\$ 7.80

Livestock sales:	\$45,000	(2000 lambs, 1100 mixed age ewes)
Livestock purchases:	\$ 6,100	(350 mixed age ewes)
Natural Increase	3000	(survival to sale)
Deaths and missing	165	

Herd Scheme

Note: All sheep are in the herd scheme.

1994 Opening Tax Values

Ewe hoggets	900	x	\$39*	\$35,100
2th ewes	700	x	\$53	37,100
3 & 4 yr ewes	1400	x	\$45	63,000
5 year & older ewes	600	x	\$37	22,200
Rams	70	x	\$138	<u>9,660</u>
				<u>\$167,060</u>

* Herd livestock are at the end-of-year values.

1994 Closing Tax Values

Ewe hoggets	910	x	\$39	\$35,490
2th ewes	730	x	\$53	38,690
3 & 4 yr ewes	1450	x	\$45	65,250
5 year & older ewes	600	x	\$37	22,200
Rams	65	x	\$138	<u>8,970</u>
				<u>\$170,600</u>

Increase in taxable income due to changes in herd numbers

= \$170,600 - \$167,060
= \$3540

Check

Herd value 30/6/94	\$170,600	
Herd value 30/6/93	<u>\$158,969</u>	(see 1992-93 example)
Increase in value	<u>\$11,631</u>	

made up of:

Tax-free increase in herd (\$167,060 - \$158,969)	\$8,091
Taxable income from increase in livestock	<u>3,540</u>
Total increase in value	<u>\$11,631</u>

Note: The base number for the alternative valuation options for 1995 will be the 1994 closing herd numbers.

Income from Livestock Operations

Sales	\$45,000
less purchases	<u>6,100</u>
Cash Surplus	\$38,900

plus taxable increase in herd	<u>4,920</u>
Taxable income from sheep	<u>\$43,820</u>

Note: This income may be adjusted if the taxpayer has deferrable income from the 1991 and 1992 income years.

National Standard Cost

Detailed formulae for calculating livestock values under the National Standard Cost scheme are contained in the Income Tax (National Standard Costs for Livestock) Determination 1994, reprinted as the Appendix to the Tax Information Bulletin Volume 5, No 11, April 1994. The formulae are complex and will not be detailed in this Budget Manual.

Using these formulae, the 1994 livestock values for tax purposes have been calculated as:

Ewe hoggets \$13.30
 Mature sheep \$19.09

1994 Opening Tax Values

Ewe hoggets	900	x	\$13.00	\$11,700.00
Mature sheep	2770	x	\$18.39	<u>50,940.30</u>
				<u>\$62,640.30</u>

1994 Closing Tax Values

Ewe hoggets	910	x	\$13.30	\$12,103.00
Mature sheep	2845	x	\$19.09	<u>54,311.05</u>
				<u>\$66,414.05</u>

Increase in taxable income
 = \$66,414.05 - 62,640.30
 = \$3,673.65

Income from Livestock Operations

Sales	\$45,000.00
less purchases	<u>6,100.00</u>
Cash surplus	38,900.00
plus Increase in livestock	<u>3,673.65</u>
Income for 1994	42,573.65
plus Revaluation income deferred from 1993	<u>1,277.66</u>
Taxable income from sheep	<u>\$43,851.31</u>

1992-93 Income Year

Livestock on hand:

	Nos.	N.A.M.V. (Herd Scheme)	Std. Value (Trading Scheme)
30 June 1992			
Ewe hoggets	860	\$24.60	\$14.28
2th ewes	760	\$34.30	\$19.51
3 & 4 yr ewes	1340	\$21.20	\$11.88
5 yr & older ewes	590	\$13.00	\$9.73
Rams	75	\$175.30	\$103.90

30 June 1993

Ewe hoggets	900	\$40.10
2th ewes	700	\$47.10
3 & 4 yr ewes	1400	\$41.60
5 yr & older	600	\$35.20
Rams	70	\$151.70

National Standard Cost (1993)

Rising 1 year sheep	\$13.00
Rising 2 year sheep	\$7.50

Livestock sales \$40,000 (1900 lambs, 1050 mixed age ewes)

Livestock purchases \$6,000 (300 mixed age ewes)

Natural Increase 2800 (survival to sale)

Deaths and missing 185

Herd Scheme

Note: All sheep are in the herd scheme.

1993 Opening Tax Values

Ewe hoggets	860	x	\$40.10*	\$34,486.00
2th ewes	760	x	\$47.00	35,720.00
3 & 4 yr ewes	1340	x	\$41.60	55,744.00
5 & 6 yr ewes	590	x	\$35.20	20,768.00
Rams	75	x	\$151.70	<u>11,377.50</u>
				<u>\$158,095.50</u>

* Herd livestock values are the end-of-year values.

1993 Closing Tax Values

Ewe hoggets	900	x	\$40.10	\$36,090.00
2th ewes	700	x	\$47.00	32,900.00
3 & 4 yr ewes	1400	x	\$41.60	58,240.00
5 & 6 yr ewes	600	x	\$35.20	21,120.00
Rams	70	x	\$151.70	<u>10,619.00</u>
				<u>\$158,969.00</u>

Increase in taxable income due to changes to herd numbers
= \$158,969.00 - \$158,095.50
= \$873.50

Check

1992 Closing Values

Ewe hoggets	860	x	\$24.60	\$21,156.00
2th ewes	760	x	\$34.30	26,068.00
3 & 4 yr ewes	1340	x	\$21.20	28,408.00
5 & 6 yr ewes	590	x	\$13.00	7,670.00
Rams	75	x	\$175.30	<u>13,147.50</u>
				<u>\$96,449.50</u>

Total increase in livestock
= 1993 Value - 1992 Value
= \$158,969.00 - \$96,449.50
= \$62,519.50

made up of:

Tax-free increase in value of herd	\$158,095.50 - \$96,449.50	\$61,646.00
Taxable income from change in numbers		<u>873.50</u>
		<u>\$62,519.50</u>

Note: Base numbers for the alternative valuation options for 1994 will be the 1993 closing herd numbers.

Income from Livestock Operations

Sales	\$40,000.00
less purchases	<u>6,000.00</u>
Cash Surplus	\$34,000.00

plus taxable increase in herd 873.50
Taxable income from sheep \$34,873.50

Note: This income may be adjusted if the taxpayer has deferrable income from homebred herdstock and/or new herdstock from the 1991 and 1992 income years.

National Standard Cost

The farmer adopts National Standard Cost (NSC) scheme to replace the Trading Scheme (no longer available).

Detailed formulae for calculating NSC's are set out in the Appendix to Tax Information Bulletin Volume 5, No 2, August 1993. These formulae are complex and will not be repeated here.

Using these formulae, the 1993 Costs of livestock for tax purposes have been calculated as:

Ewe hoggets	\$13.00 per head
Mature sheep	\$18.39 per head

1993 Opening Tax Values (Trading Scheme)

Ewe hoggets	860	x	\$14.28	\$12,280.80
2th ewes	760	x	\$19.51	14,827.60
3 & 4 yr ewes	1340	x	\$11.88	15,919.20
5 & 6 yr ewes	590	x	\$9.73	5,740.70
Rams	75	x	\$103.90	<u>7,792.50</u>
				<u>\$56,560.80</u>

1993 Closing Tax Value (NSC)

Ewe hoggets	900	x	\$13.00	\$11,700.00
2th ewes	700	x	\$18.39	12,873.00
3 & 4 yr ewes	1400	x	\$18.39	25,746.00
5 yr & older ewes	600	x	\$18.39	11,034.00
Rams	70	x	\$18.39	<u>1,287.30</u>
				<u>\$62,640.00</u>

Increase in taxable income

=	1993 Value - 1992 Value
=	\$62,640.30 - \$56,560.80
=	<u>\$6,079.50</u>

Revaluation Income:

Ewe hoggets	900	x	(\$13.00 - \$14.28)	(1,152.00)
2th ewes	700	x	(\$18.39 - \$19.51)	(784.00)
3 & 4 yr ewes	1400	x	(\$18.39 - \$11.88)	9,114.00
5 yr & older ewes	600	x	(\$18.39 - \$9.73)	5,196.00
Rams	70	x	(\$18.39 - \$103.90)	<u>(5,985.70)</u>
				<u>\$6,388.30</u>

Note: This may be spread over 5 years, say, \$1,277.66 p.a.

Income from Livestock Operations

Sales	\$40,000.00
less purchases	<u>6,000.00</u>
Cash surplus	34,000.00

plus Increase in value of sheep	<u>6,079.50</u>
	40,079.50

less Revaluation Income deferred (\$6,388.30 - \$1,277.66)	<u>5,110.64</u>
Taxable income from sheep	<u>\$34,968.86</u>

4.15.6 Accrual Rules for Expenditure

Expenditures which can be treated as a tax deductible expense when paid, (i.e. the portion that relates to a period after balance date) and the upper limit after which the unexpired portion must be adjusted for are as follows:

Expenditure	Limit on Expenditure
Postage and Stationery	No limit
Subscriptions	* Journals and periodicals No limit * Trade and professional No limit in total, but the associations 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.

4.15.7 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 and self-employed persons. These levies are a tax-deductible expense.

Levies on Employers

Every employer, whether an individual, a partnership, trust, company or club, must pay an annual levy by 31 May each year, based on the amount of leviabale earnings paid to employees during the year ended 31 March.

Premium groups have been extensively revised for 1996 and activities are now grouped according to the risk of injury occurring, although these groups are still based on broad economic sectors. Activities will be reclassified into different premium groups when their risk profile changes, resulting in increased premiums when risks increase, and decreased premiums when risks decrease.

The Premium Rate Booklet is available from the Accident Rehabilitation and Compensation Insurance Corporation but a selection of ACC Employer Premiums for 1996 is listed below. These premiums include the 6 cents Occupational Safety and Health buy, and do NOT include GST.

Class	Description	1996 Premium (per \$100)
Horticulture and Fruit Growing		
01110	Plant nurseries	\$3.19
01120	Cut flower and flower seed growing	3.19
01130	Vegetable growing	3.19
01140	Grape growing	3.19
01150	Apple and pear growing	3.19
01160	Stone fruit growing	3.19
01170	Kiwi fruit growing	3.19
01190	Fruit growing (not elsewhere classified)	3.19
Grain, Sheep and Beef Cattle Farming		
01210	Grain growing	3.19
01220	Grain-sheep and grain-beef cattle farming	3.92
01230	Sheep-beef cattle farming	3.92
01240	Sheep farming	3.92
01250	Beef cattle farming	3.92
Dairy Cattle Farming		
01300	Dairy cattle farming	3.92
Poultry Farming		
01410	Poultry farming (meat)	3.92
01420	Poultry farming (eggs)	3.92
Other Livestock Farming		
01510	Pig farming	3.92
01520	Horse farming	3.92
01530	Deer farming	3.92
01590	Livestock farming (not elsewhere classified)	3.92
Other Crop Growing		
01690	Crop and plant growing (not elsewhere classified)	3.19
Services to Agriculture		
02120	Shearing services	3.92
02130	Aerial agricultural services	3.92
02190	Services to agriculture (not elsewhere classified)	3.92
02191	Animal or pet boarding	2.43
02192	Sphagnum moss processing	3.18

Class	Description	1996 Premium (per \$100)
Forestry and Logging		
03010	Forestry	\$9.86
03020	Logging	9.86
03021	Forest products gathering	7.08
03030	Services to forestry (excluding tree cutting and felling)	7.45
03031	Forest nursery, operation or service	3.19
Marine Fishing		
04110	Rock lobster fishing	6.44
04120	Prawn fishing	6.44
04130	Fishing, finfish trawling (including processing on board)	6.44
04140	Squid jigging (including processing on board)	6.44
04191	Shellfish and paua fishing (not from cultivated beds)	6.44
04192	Seaweed, shellfish and other seafood, handgathering (not from boat)	3.18
Aquaculture		
04200	Aquaculture	3.18

Levies on the Self-Employed

Owner-operators, partnerships and sharemilkers are generally regarded as self-employed for accident compensation purposes. The levy payable is calculated by applying the values shown above to total assessable income. Self-employed ACC levies must be paid to the Inland Revenue Department by the terminal tax due date.

Levies on Salary and Wage earners

Salary and wage earners pay a premium of 60 cents per \$100 earnings to meet the costs of non work-related accidents. This amount is deducted by the employer (like PAYE tax).

4.15.8 Schedule Rates of Depreciation

Note: DV is the Diminishing Value rate.

DV+ is the loaded interim rate of 1.25 times the Diminishing Value rate, where applicable.

SL is the Straight Line rate (or Cost Price method).

SL+ is the loaded interim rate of 1.25 times the Straight Line rate, where applicable.

SV denotes Standard Value as agreed by IRD.

* denotes the option of replacement value, annual revaluation or standard value.

Bold indicates the method to be used for income years 1992-93 and earlier.

	DV	DV+	SL	SL+
Agricultural plant and equipment:				
Tractor drawn implements	10	12.5	7	8.5
Self propelled equipment	20	25	13.5	17.5
Aircraft:				
Fixed wing agricultural aerial work aircraft, including wing attachments for spraying, dusting and distributing seed:	33	41.3	24	31
Helicopters from and including year ended 31 March 1969				
- Airframe, engine, rotor system	25	31.3	17.5	22
- Spraying tanks and attached spraying mechanism	33.3	41.7	24	32
Barns:				
Simple loafing barns	15		10	
Wintering barns all types of construction	15		10	
Beehives	*			
Boats - see Vessels				
Boilers	10	12.5	7	8.5
Bores and wells	*			
Bridges:				
Wooden	3	4	2.5	3.1
Others	2.5	3	2	2.5
Buildings:				
Reinforced concrete, steel or reinforced concrete framed with brick walls or permanent materials.	1		1	
Brick, stone or concrete walled without steel or reinforced concrete frame, stucco, steeltex or other similar construction with wooden frame.	2.5		2	
Wooden framed - not specified elsewhere.	3		2.5	

Section 4.15.8 continued

	DV	DV+	SL	SL+
Affected by acid fumes - vinegar manufacturers, fertiliser works, bulk fertiliser stores, chemical works, tanneries.	6		4	
Portable huts	10		7	
'Temporary Buildings'	10		7	
Bulk lime spreaders	10	12.5	7	8.5
Bulldozers:				
General	20	25	13.5	17.5
Earthmoving contractors	25	31.3	17.5	22
Cars and Trucks:				
Rental	25	31.2	17.5	22
Other	20	25	13.5	17.5
Chainsaws	50	62.5	40	51
Cloches	*			
Compressors:				
Portable	15	18.8	10	13
Fixed	10	12.5	7	8.5
Computers	20	25	13.5	17.5
Concrete mixers	15	18.8	10	13
Electric test equipment	20	25	13.5	17.5
Electronic scales	20	25	13.5	17.5
Ensilage pits - concrete walls with sliding roof	10	12.5	7	8.5
Feeding out units for cattle - all types of construction	6	7	45	
Fences:				
Electric	10	12.5	7	8.5
Others		<i>Maintenance</i>		
Fire fighting plant and equipment:				
Reservoir	1	2	1	1.3
Ring main and hydrants	1	2	1	1.3
Breathing apparatus, hoses, pipelines, pumps and diesel engines	10	12.5	7	8.5
Axes, ladders, blankets and fire extinguishers costing less than \$100 each	*			
Fish processing buildings	6		4	
Fish processing plant	15	18.8	10	13
Fishing boats and gear - see Vessels				
Fork lifts	20	25	13.5	17.5

Section 4.15.8 continued

	DV	DV+	SL	SL+
Freezers and cookers for preparation and storage of dog meat	10	12.5	7	8.5
Fowl houses - see poultry				
Frost protection plant - pumping unit, sprinklers, standards and pipelines	10	12.5	7	8.5
		<i>or partly claim as Development exp.</i>		
Fuel tanks:				
Underground		<i>rate as for buildings</i>		
Gas cylinder containers	S.V.			
Gas water heaters	10	12.5	7	8.5
Glasshouses:				
Wooden framed	7		5	
Metal framed	4		3	
Grain drying and storage bins	5	6.3	3.5	4
Grain drying plant	10	12.5	7	8.5
Grain - portable silos - see silos				
Hay balers	20	25	13.5	17.5
Header harvesters	20	25	13.5	17.5
Heating systems	10	12.5	7	8.5
Helicopters - see aircraft				
Hop frames	*			
Hop kilns	15	18.8	10	13
Incinerators	15	18.8	10	13
Land Improvements - see Section 4.15.3.				
Lawnmowers:				
Motor driven	20	25	13.5	17.5
Others	10	12.5	7	8.5
Lime spreaders bulk	10	12.5	7	8.5
Livestock saleyards - see saleyards				
Loose tools - no single item to exceed \$250 in cost		<i>See Section 4.8.4</i>		
Milking sheds - all types:				
Built before 1 April 1966	6		4	
Built after 1 April 1966	15		10	
Cost of converting to herringbone design after 1 April 1966 -	15		10	
Rotary Herringbone	10	12.5	7	8.5
Motor vehicles, trucks and scooters	20	25	13.5	17.5
Office equipment and machines	20	25	13.5	17.5
Pallets	*			
Pig houses - all types	15		10	
Pipelines		<i>maintenance</i>		

Section 4.15.8 continued

	DV	DV+	SL	SL+
Plant and machinery - except as elsewhere specified:				
General including agricultural plant and implements but not motor vehicles	10	12.5	7	8.5
Plastic pots for tomato growing	S.V.			
Poultry:				
Battery type cages	10	12.5	7	8.5
Colony houses with wooden frames, iron roofs and netting sides and bases	10	12.5	7	8.5
Fowl houses-steel framed	3		2.5	
- wooden framed	7		5	
Saddlery and harnesses	*			
Saleyards:				
Constructed after 1 April 1971	2.5	3	2	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		10
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	<i>As for buildings</i>			
Sheep and cattle yards:				
Uncovered yards	<i>See saleyards</i>			
Roofed yards	<i>Appropriate building rate</i>			
Gratings- fixed	<i>Appropriate building rate</i>			
- Loose	*			
Sheep crates	15	8.8	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

Section 4.15.8 continued

	DV	DV+	SL	SL+
Spray type				
- Shed				
- Base (race, floor of dip, two draining pens and sump)				
- tanks and pipes, dip including pumps, electric motor and fittings	10	12.5	7	8.5
Silage storage bunkers				
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				
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				
Tarpaulins				
Threshing plant	20	25	13.5	17.5
Tomatoes:				
Plastic pots for growing	S.V.			
Structure for shading	2.5	3	2	2.5
Tools				
Traction engines	10	12.5	7	8.5
Tractors	20	25	13.5	17.5
Trailers				
Trickle irrigation equipment in glasshouses	25	31.3	17.5	22
Trucks - see motor trucks				
Tunnel houses P.V.C.	11		7.5	

Section 4.15.8 continued

	DV	DV+	SL	SL+
Underground silage pits - concrete walled with sliding roof	10	12.5	7	8.5
Vessels (Registered for fishing):				
- Hulls including fixed gear and refrigeration rooms	10	12.5	7	8.5
- Deck machinery, winches, and motors	15	18.8	10	13
- Main engines	20	25	13.5	7.5
Waggon, carts and drays	10	12.5	7	8.5
Water towers		<i>Appropriate building rate</i>		
Weighing machines and scales	10	12.5	7	8.5
Wells and water bores *				
Windmills	10	12.5	7	8.5
Wine making industry:				
Tanks and vats				
- stainless steel	10	12.5	7	8.5
- Wooden	10	12.5	7	8.5
- Concrete:				
for fermentation.	10	12.5	7	8.5
for storage	6	7	4	5
Casks and barrels				
- both circulating or storage	S.V.			
Wintering barns - all types of construction	15	18	10	12.5
Wire ropes	*			

4.15.9 Economic Rates of Depreciation

The following are selected examples of industry and asset categories.

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
<i>Agriculture, Horticulture and Aquaculture</i>			
Agricultural and horticultural machinery (not specified)	15.5	12	8
Aeroplanes (top dressing and spraying) and specialised attachments	10	18	12.5
Beekeeping equipment	12.5	15	10
Bush cutters	5	33	24
Chainsaws	3	50	40
Cherry pickers	12.5	15	10
Cleaning machinery	15.5	12	8
Crates (cattle)	10	18	12.5
Crates (pig)	10	18	12.5
Crates (sheep)	10	18	12.5
Cultivators (rotary)	5	33	24
Egg crates	3	50	40
Feeders (forage)	12.5	15	10
Grading machinery	15.5	12	8
Harness	5	33	24
Harvesters	15.5	12	8
Haybalers	12.5	15	10
Hop kilns	15.5	12	8
Irrigation piping (above ground)	15.5	12	8
Irrigation pumps (above ground)	15.5	12	8
Irigators (travelling)	10	18	12.5
Isolating transformers	8	22	15.5
Kennel (dogs)	5	33	24
Milking machinery	8	22	15.5
Mowers (gang and PTO type)	12.5	15	10
Pig feeding plant	8	22	15.5
Pig watering systems	20	9.5	6.5
Post hole borers	5	33	24
Post hole borers (PTO type)	12.5	15	10
Poultry equipment	12.5	15	10
Rollers	12.5	15	10
Saddlery	5	33	24
Shearing equipment	8	22	15.5

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
Shellfish nets	4	40	30
Shellfish ropes	4	40	30
Shellfish stakes	4	40	30
Sorting machinery	15.5	12	8
Sprayers (backpack)	5	33	24
Sprayers (mobile crop)	12.5	15	10
Sprayers (mobile weed)	12.5	15	10
Spreads (fertiliser)	12.5	15	10
Tools (hand)	3	50	40
Tools (power)	3	50	40
Tractor drawn implements	15.5	12	8
Tractors (wheeled)	15.5	12	8
<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	15.5	12	8
Conveyors (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

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equip Depn Rate (%)
Evaporators (MVR type)	15.5	12	8
Evaporators (TVR type)	20	9.5	6.5
Filling machines (bottle)	15.5	12	8
Flow meters	8	22	15.5
Grinding plant (casein)	15.5	12	8
Heat exchanges	15.5	12	8
Homogenisers	12.5	15	10
Ion exchangers (whey)	12.5	15	10
Metal detectors	8	22	15.5
Mixers	15.5	12	8
Packing machinery (vacuum)	10	18	12.5
Packing machines (butter)	15.5	12	8
Pasteurisers	15.5	12	8
Pipework	15.5	12	8
Powder dryer buildings	15.5	12	8
Presses (butter)	15.5	12	8
Presses (cheese)	15.5	12	8
Refrigeration equipment	15.5	12	8
Retorts	25	7.5	5.5
Scrape surface heat exchangers	12.5	15	10
Separators	12.5	15	10
Sifting plant (casein)	15.5	12	8
Silos	25	7.5	5.5
Tempering bins (casein)	15.5	12	8
Ultrafiltration plant	10	18	12.5
Valves	15.5	12	8
Vats	25	7.5	5.5
Washers (bottle)	15.5	12	8
Washers (boxes)	12.5	15	10
Washers (crate)	12.5	15	10
<i>Fishing</i>			
Fishing equipment (not specified)	20	9.5	6.5
Alternators (auxillary)	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

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
Engines	12.5	15	10
Floodlight systems	3	50	40
Freezers (Blast)	10	18	12.5
Generators (auxillary)	10	18	12.5
Hydraulic systems	5	33	24
Icemaking machines	10	18	12.5
Instrumentation (electronic)	5	33	24
Insulation to refrigerated holds	15.5	12	8
Lifejackets	4	40	30
Life rafts	8	22	15.5
Lines (fishing)		expense	expense
Nets (fishing)		expense	expense
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

Asset Categories

Buildings and Structures

Buildings and structures (not specified)	50	4	3
Aprons (Airports)	50	4	3
Barns	20	9.5	6.5
Borewells	20	9.5	6.5
Bridges (of block construction)	100	2	1.5
Bridges (of brick construction)	100	2	1.5
Bridges (of concrete construction)	100	2	1.5
Bridges (of stone construction)	100	2	1.5
Bridges (other than of block, brick, concrete and stone)	50	4	3
Buildings (portable)	12.5	15	10

Section 4.15.9 continued

Asset Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
Buildings with pre-fabricated stressed skin insulation panels	33.3	6	4
Buildings with reinforced concrete framing	50	4	3
Buildings with steel or steel and timber framing	50	4	3
Buildings with timber framing	50	4	3
Bunkers (concrete)	20	9.5	6.5
Dams (earth with rock core)	100	2	1.5
Dams (of block construction)	100	2	1.5
Dams (of brick construction)	100	2	1.5
Dams (of concrete construction)	100	2	1.5
Dams (of earth construction without rock core)	50	4	3
Dams (of stone construction)		100	21.5
Driveways	50	4	3
Dykes (of earth construction)		50	4 3
Fences	20	9.5	6.5
Fertiliser works	33.3	6	4
Floating piers	33.3	6	4
Fowl houses	20	9.5	6.5
Hot houses (of glass or other construction excluding PVC)	20	9.5	6.5
Hot houses (of PVC or similar construction)	12.5	15	10
Lamp posts (excluding wooden)	25	7.5	5.5
Lamp posts (wooden)	20	9.5	6.5
Manholes	50	4	3
Pig houses	20	9.5	6.5
Reservoirs (above ground, concrete)	50	4	3
Reservoirs (for water, other than concrete or lined earth)	33.3	6	4
Reservoirs (in-ground, concrete)	100	2	1.5
Reservoirs (lined earth)	50	4	3
Retaining walls (concrete)	100	2	1.5
Retaining walls (wooden)	25	7.5	5.5
Roadways	50	4	3
Saleyards	33.3	6	4
Shade houses (of glass or other construction excluding PVC)	20	9.5	6.5

Section 4.15.9 continued

Asset Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equip Depn Rate (%)
Shade houses (of PVC or similar construction)	12.5	15	10
Stopbanks (of earth construction)	50	4	3
Swimming pools (in-ground)	33.3	6	4
Tanneries	33.3	6	4
Towers (for floodlights)	25	7.5	5.5
Tunnels (of block construction)	100	2	1.5
Tunnels (of brick construction)	100	2	1.5
Tunnels (of concrete construction)	100	2	1.5
Tunnels (of stone construction)	100	2	1.5
Wharf tarmac	50	4	3
Wharves (of block construction)	100	2	1.5
Wharves (of brick construction)	100	2	1.5
Wharves (of concrete construction)	100	2	1.5
Wharves (of stone construction)	100	2	1.5
Wharves (other than of block, brick, concrete & stone)	50	4	3
<i>Transportation</i>			
Transportation (not specified)	20	9.5	6.5
Aeroplanes (top dressing and spraying) and specialised attachments	10	18	12.5
Helicopters	20	9.5	6.5
Horse floats	20	9.5	6.5
Jetboats	10	18	12.5
Lifejackets and the like	4	40	30
Motor vehicles, class NA (for transporting goods, not exceeding 3.5 tonnes unladen weight)	10	18	12.5
Motor vehicles, class NB (for transporting goods, exceeding 3.5 tonnes but not exceeding 12 tonnes unladen weight)	12.5	15	10
Motor vehicles, class NC (for transporting goods, exceeding 12 tonnes unladen weight)	10	18	12.5
Motorcycles		6.66	26 18

Section 4.15.9 continued

Asset Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equip Depn Rate (%)
Traction engines	25	7.5	5.5
Tractors (farm type)	15.5	12	8
Trailer, class TC (for transporting goods, exceeding 3.5 tonnes but not exceeding 10 tonnes unladen weight)	20	9.5	6.5
Trailer, class TD (for transporting goods, exceeding 10 tonnes unladen weight)	15.5	12	8
Trailer, classes TA and TB (for transporting goods, not exceeding 3.5 tonnes unladen weight and excluding domestic type trailers)	15.5	12	8
Trailer, domestic type (not exceeding 1,000 kg rated carrying capacity)	8	22	15.5
Vehicles (road going) (not elsewhere specified)	15.5	12	8

SECTION 5

GIFT DUTY

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5.1 INTRODUCTION

Gift duty is levied under the Estate and Gift Duties Act 1968 as amended. Estate duty has been abolished as from 17 December 1992.

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 (the person making the gift).

'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.

'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.

5.2.2 Valuation of Gift

The value of a gift is the monetary value of the property gifted less any consideration paid. The value of land and buildings is determined by agreement between the donor and the Commissioner of Inland Revenue, or by the Valuer-General. All other property is at market value as assessed by a competent valuer.

The valuation of an annuity or some other form of future interest is calculated using the present value tables in *Section 5.3.2*.

Example:

A friend aged 45 is gifted an annuity of \$4000 for the remainder of her life.

The present value of \$1 p.a. for the remaining life of a female aged 45 is \$15.60540 (from Table B, page E-14).

The value of this gift is \$62,421.60, calculated as \$4,000 x \$15.60540.

It is important that the correct Table is used, for example, Table A to value a life interest for males, or Table D to value an interest for a specified time.

Date of Valuation

A gift (and any consideration) is valued as at the date the gift is made, which is taken to mean the date at which the donor has put himself in the position where the gift cannot be revoked (i.e. the gift is complete).

The completion dates of some of the more common forms of gift are illustrated in the following chart:

Description of Gift	When Complete
Cash	On delivery to the beneficiary.
Cheques	When the cheque has been cashed. (Until then it can be revoked.)
Land	Except where a valid trust is created, the earlier of the dates on which - (a) the instrument of transfer is registered in the Land Transfer Office; or (b) the beneficiary has possession of all the necessary documents to enable the registration to be effected.
Shares	As for land, except that the instrument of transfer is registered by the company.
Chattel	Where there has been effective delivery of the chattels or there has been a deed of assignment.
Forgiveness of debt	Normally the execution of a legally effective deed of release or forgiveness of debt will be required.

Forgiveness of Debt

The forgiving of a debt has been a traditional feature of estate planning, but under the Financial Arrangement rules, the amount forgiven can in some circumstances be assessed for income tax in the hands of the person who owes the debt. A common example would include a provision under a will to forgive an outstanding family debt upon the death of the testator. However 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 in a will executed before 1 October 1987. All debts forgiven after that date are subject to income tax except where the debt is forgiven by a natural person in consideration of 'natural love and affection' towards the person who owes the debt.

5.2.3 Exemptions from Gift Duty

A dutiable gift is any gift which is or may be liable to gift duty. However, certain gifts are specifically excluded from gift duty, and include:

1. Small gifts, not exceeding an aggregate of \$2,000 to the same beneficiary in the same calendar year, are not taken into account if they are made in good faith as part of the normal expenditure of the donor.
2. Gifts made towards the maintenance or education of a relative provided the gift is not excessive having regard to the obligation of the donor.
3. Gifts made to charitable bodies.
4. Special exemptions including:
 - certain superannuation elections.
 - contributions by an employer to superannuation fund.
 - certain gratuitous payments from employer to employee.
 - settlement of a joint family home.

5.2.4 Dispositions of Matrimonial Property

Since 28 July 1983 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 or estate 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	\$300,000
	-	Share	20,000
	-	Bank Account	10,000
Wife	-	Bank Account	\$ 15,000

On 30 November 1993 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)	150,000
	-	Shares (half share)	10,000
Wife	-	Bank Account	\$ 15,000
	-	Farm (half share)	150,000
	-	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 1994.

Gift to B of \$15,000 made on 31 July 1995.

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 1995, 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 1994 - duty of \$150 paid.

Gift to D of \$15,000 made on 1 January 1995.

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 penalty of 5% will be added to the unpaid duty.

Interest at 5% p.a. on the duty payable, and subsequently on any penalty levied, will be added to any duty unpaid within three months of making a dutiable gift.

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 1994 of \$22,000

Gift made to E on 18 November 1994 of \$22,000

Gift made to F on 31 October 1995 of \$35,000

Duty assessment is as follows:

14 August 1994

Gift duty payable on gift of \$22,000 to D is zero.

18 November 1994

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 1995

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	<u>625.00</u>
DUTY PAYABLE	475.00

$$\text{Gift to F } \frac{35,000}{57,000} \times 2850 = \$1,750.00$$

Total gift duty payable is:-

Gift to D	\$ 625
Gift to E (625 + 475)	\$1,100
Gift to F	<u>\$1,750</u>
	<u>\$3,475</u>

5.3 APPENDICES

5.3.1 Rates of Gift Duty

Gifts Made On or After 1 April 1984

Value of Dutiable Gifts Made Within 12 months	Amount and Rate of Duty	
\$1 - \$27,000		Nil
\$27,001 - \$36,000	\$0 plus	5% of excess over \$27,000
\$36,001 - \$54,000	\$450 plus	10% of excess over \$36,000
\$54,001 - \$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.

Table A
Present Value of Annuity or Other Interest for Life
of MALE or Expectant on Death of MALE

Years of Age	Expectation of Life of Male	Present Value of \$1 p.a. on Death	Present Value of \$1 Payable for Life	Present Value of Income on Capital of \$1
	Years	\$	\$	\$
0	68.29	19.28531	0.03573	0.96427
1	69.03	19.31080	0.03446	0.96554
2	68.17	19.28117	0.03594	0.96406
3	67.27	19.24885	0.03756	0.96244
4	66.33	19.21357	0.03932	0.96068
5	65.39	19.17665	0.04117	0.95883
6	64.44	19.13758	0.04312	0.95688
7	63.48	19.09622	0.04519	0.95481
8	62.53	19.05334	0.04733	0.95267
9	61.56	19.00747	0.04963	0.95037
10	60.60	18.95988	0.05201	0.94799
11	59.63	18.90948	0.05453	0.94547
12	58.66	18.85664	0.05717	0.94283
13	57.69	18.80124	0.05994	0.94006
14	56.74	18.74441	0.06278	0.93722
15	55.79	18.68488	0.06576	0.93424
16	54.86	18.62391	0.06880	0.93120
17	53.92	18.55941	0.07203	0.92797
18	53.00	18.49340	0.07533	0.92467
19	52.07	18.42335	0.07883	0.92117
20	51.15	18.35084	0.08246	0.91754
21	50.23	18.27503	0.08625	0.91375
22	49.32	18.19663	0.09017	0.90983
23	48.40	18.11378	0.09431	0.90569
24	47.48	18.02716	0.09864	0.90136
25	46.56	17.93660	0.10317	0.89683
26	45.63	17.84085	0.10796	0.89204
27	44.70	17.74068	0.11297	0.88703
28	43.76	17.63473	0.11826	0.88174
29	42.83	17.52505	0.12375	0.87625
30	41.89	17.40904	0.12955	0.87045

Table A continued

	Years	\$	\$	\$
31	40.96	17.28896	0.13555	0.86445
32	40.03	17.16314	0.14184	0.85816
33	39.10	17.03125	0.14844	0.85156
34	38.17	16.89325	0.15534	0.84466
35	37.24	16.74887	0.16256	0.83744
36	36.32	16.59947	0.17003	0.82997
37	35.40	16.44326	0.17784	0.82216
38	34.48	16.27992	0.18600	0.81400
39	33.57	16.11105	0.19445	0.80555
40	32.65	15.93259	0.20337	0.79663
41	31.74	15.74811	0.21259	0.78741
42	30.83	15.55535	0.22223	0.77777
43	29.92	15.35394	0.23230	0.76770
44	29.02	15.14570	0.24271	0.75729
45	28.13	14.92971	0.25351	0.74649
46	27.25	14.70681	0.26466	0.73534
47	26.38	14.47697	0.27615	0.72385
48	25.52	14.24019	0.28799	0.71201
49	24.67	13.99650	0.30018	0.69982
50	23.83	13.74593	0.31270	0.68730
51	23.00	13.48857	0.32557	0.67443
52	22.18	13.22161	0.33892	0.66108
53	21.38	12.95106	0.35245	0.64755
54	20.59	12.67399	0.36630	0.63370
55	19.82	12.39437	0.38028	0.61972
56	19.06	12.10793	0.39460	0.60540
57	18.32	11.81622	0.40919	0.59081
58	17.60	11.52338	0.42383	0.57617
59	16.89	11.22607	0.43870	0.56130
60	16.19	10.92067	0.45397	0.54603
61	15.50	10.60871	0.46959	0.53044
62	14.82	10.29307	0.48535	0.51465
63	14.16	9.97560	0.50122	0.49878
64	13.52	9.65621	0.51719	0.48281
65	12.90	9.34054	0.53297	0.46703
66	12.29	9.01705	0.54915	0.45085
67	11.71	8.70177	0.56491	0.43509
68	11.14	8.38437	0.58078	0.41922
69	10.59	8.06670	0.59666	0.40334
70	10.05	7.75097	0.61245	0.38755

Table A continued

	Years	\$	\$	\$
71	9.53	7.43320	0.62834	0.37166
72	9.01	7.11396	0.64430	0.35570
73	8.51	6.79196	0.66040	0.33960
74	8.03	6.48255	0.67587	0.32413
75	7.57	6.17217	0.69139	0.30861
76	7.13	5.87436	0.70628	0.29372
77	6.71	5.58028	0.72099	0.27901
78	6.31	5.29600	0.73520	0.26480
79	5.92	5.01599	0.74920	0.25080
80	5.55	4.73990	0.76300	0.23700
81	5.19	4.47126	0.77644	0.22356
82	4.84	4.20411	0.78979	0.21021
83	4.51	3.94555	0.80272	0.19728
84	4.19	3.69482	0.81526	0.18474
85	3.89	3.45545	0.82723	0.17277
86	3.60	3.21687	0.83916	0.16084
87	3.33	2.99474	0.85026	0.14974
88	3.07	2.78084	0.86096	0.13904
89	2.83	2.57640	0.87118	0.12882
90	2.60	2.37771	0.88111	0.11889
91	2.39	2.19631	0.89018	0.10982
92	2.19	2.02354	0.89882	0.10118
93	2.01	1.86805	0.90660	0.09340
94	1.84	1.71429	0.91429	0.08571
95	1.68	1.56916	0.92154	0.07846
96	1.53	1.43311	0.92834	0.07166
97	1.39	1.30612	0.93469	0.06531
98	1.27	1.19728	0.94014	0.05986
99	1.15	1.08844	0.94558	0.05442
100	1.05	0.99773	0.95011	0.04989

Table B
Present Value of Annuity or Other Interest for Life
of FEMALE or Expectant on Death of FEMALE

Years of Age	Expectation of Life of Female	Present Value of \$1 p.a on Death	Present Value of \$1 Payable for Life	Present Value of Income on Capital of \$1
	Years	\$	\$	\$
0	72.43	19.41600	0.02920	0.97080
1	72.90	19.42934	0.02853	0.97147
2	72.05	19.40521	0.02974	0.97026
3	71.12	19.37756	0.03112	0.96888
4	70.18	19.34831	0.03258	0.96742
5	69.23	19.31737	0.03413	0.96587
6	68.26	19.28427	0.03579	0.96421
7	67.30	19.24994	0.03750	0.96250
8	66.33	19.21357	0.03932	0.96068
9	65.35	19.17505	0.04125	0.95875
10	64.37	19.13464	0.04327	0.95673
11	63.39	19.09226	0.04539	0.95461
12	62.41	19.04779	0.04761	0.95289
13	61.42	19.00067	0.04997	0.95003
14	60.44	18.95172	0.05241	0.94759
15	59.47	18.90092	0.05495	0.94505
16	58.50	18.84765	0.05762	0.94238
17	57.53	18.79180	0.06041	0.93959
18	56.56	18.73325	0.06334	0.93666
19	55.60	18.67252	0.06637	0.93363
20	54.64	18.60887	0.06956	0.93044
21	53.67	18.54147	0.07293	0.92707
22	52.71	18.47156	0.07642	0.92358
23	51.75	18.39830	0.08008	0.91992
24	50.79	18.32154	0.08392	0.91608
25	49.83	18.24110	0.08795	0.91205
26	48.87	18.15682	0.09216	0.90784
27	47.92	18.06947	0.09653	0.90347
28	46.96	17.97698	0.10115	0.89885
29	46.01	17.88108	0.10595	0.89405
30	45.06	17.78043	0.11098	0.88902

Table B continued

	Years	\$	\$	\$
31	44.11	17.67502	0.11625	0.88375
32	43.16	17.56461	0.12177	0.87823
33	42.21	17.44898	0.12755	0.87245
34	41.26	17.32787	0.13361	0.86639
35	40.32	17.20238	0.13988	0.86012
36	39.38	17.07102	0.14645	0.85355
37	38.44	16.93352	0.15332	0.84668
38	37.50	16.78959	0.16052	0.83948
39	36.57	16.64058	0.16797	0.83203
40	35.64	16.48470	0.17576	0.82424
41	34.71	16.32162	0.18392	0.81608
42	33.79	16.15293	0.19235	0.80765
43	32.88	15.97856	0.20107	0.79893
44	31.97	15.79638	0.21018	0.78982
45	31.06	15.60540	0.21973	0.78072
46	30.17	15.40991	0.22950	0.77050
47	29.29	15.20817	0.23959	0.76041
48	28.41	14.99774	0.25011	0.74989
49	27.54	14.78078	0.26096	0.73904
50	26.68	14.55732	0.27213	0.72787
51	25.82	14.32456	0.28377	0.71623
52	24.98	14.08804	0.29560	0.70440
53	24.14	13.83998	0.30800	0.69200
54	23.31	13.58470	0.32077	0.67923
55	22.49	13.32253	0.33387	0.66613
56	21.67	13.05019	0.34749	0.65251
57	20.87	12.77449	0.36128	0.63872
58	20.08	12.49093	0.37545	0.62455
59	19.30	12.19839	0.39008	0.60992
60	18.53	11.89933	0.40503	0.59497
61	17.77	11.59402	0.42030	0.57970
62	17.02	11.28238	0.43588	0.56412
63	16.28	10.95993	0.45200	0.54800
64	15.56	10.63620	0.46819	0.53181
65	14.84	10.30270	0.48487	0.51513
66	14.14	9.96598	0.50170	0.49830
67	13.45	9.62085	0.51896	0.48104
68	12.77	9.27160	0.53642	0.46358
69	12.11	8.92159	0.55392	0.44608
70	11.46	8.56256	0.57187	0.42813

Table B continued

	Years	\$	\$	\$
71	10.83	8.20702	0.58965	0.41035
72	10.22	7.85036	0.60748	0.39252
73	9.63	7.49459	0.62527	0.37473
74	9.07	7.15080	0.64246	0.35754
75	8.53	6.80486	0.65976	0.34024
76	8.01	6.46966	0.67652	0.32348
77	7.52	6.13833	0.69308	0.30692
78	7.05	5.82022	0.70899	0.29101
79	6.59	5.49499	0.72525	0.27475
80	6.16	5.18940	0.74053	0.25947
81	5.74	4.88168	0.75592	0.24408
82	5.34	4.58319	0.77084	0.22916
83	4.96	4.29814	0.78509	0.21491
84	4.59	4.00823	0.79959	0.20041
85	4.24	3.73400	0.81330	0.18670
86	3.91	3.47191	0.82640	0.17360
87	3.60	3.21687	0.83916	0.16084
88	3.31	2.97829	0.85109	0.14891
89	3.04	2.75616	0.86219	0.13781
90	2.78	2.53320	0.87334	0.12666
91	2.54	2.32588	0.88371	0.11629
92	2.32	2.13584	0.89321	0.10679
93	2.12	1.96307	0.90185	0.09815
94	1.93	1.79592	0.91020	0.08980
95	1.75	1.63265	0.91837	0.08163
96	1.59	1.48753	0.92562	0.07438
97	1.45	1.36054	0.93197	0.06803
98	1.31	1.23356	0.93832	0.06168
99	1.19	1.12472	0.94376	0.05624
100	1.07	1.01587	0.94921	0.05079

Table C
Present Value of Annuity or Other Interest for Widowhood
or Expectant on Termination of Widowhood

Years of Age	Expectation of Widowhood	Present Value of \$1 per Annum For Widowhood	Present Value of \$1 Payable on Termination of Widowhood	Present Value of Income on Capital of \$1 for Widowhood
Years	Years	\$	\$	\$
Up to 20	7.5	6.12479	0.69376	0.30624
21	8.2	6.59213	0.67039	0.32961
22	8.9	7.04336	0.64783	0.35217
23	9.8	7.59895	0.62005	0.37995
24	10.7	8.13101	0.59344	0.40656
25	11.5	8.58483	0.57076	0.42924
26	12.2	8.96931	0.55153	0.44847
27	12.8	9.28751	0.53562	0.46438
28	13.3	9.54509	0.52275	0.47725
29	13.7	9.74712	0.51264	0.48736
30	14.1	9.94674	0.50266	0.49734
31	14.4	10.09104	0.49545	0.50455
32	14.9	10.33156	0.48342	0.51658
33	15.3	10.51709	0.47415	0.52585
34	15.8	10.74614	0.46269	0.53731
35	16.3	10.96866	0.45157	0.54843
36	16.9	11.23044	0.43848	0.56152
37	17.6	11.52338	0.42383	0.57617
38	18.2	11.76874	0.41156	0.58844
39	18.8	12.00617	0.39969	0.60031
40	19.5	12.27376	0.38631	0.61369
41	20.3	12.56989	0.37151	0.62849
42	20.9	12.78526	0.36074	0.63926
43	21.4	12.95789	0.35211	0.64789
44	21.8	13.09463	0.34527	0.65473
45	22.0	13.16300	0.34185	0.65815
46	22.1	13.19556	0.34022	0.65978
47	22.2	13.22811	0.33859	0.66141
48	22.2	13.22811	0.33859	0.66141
49	22.1	13.19556	0.34022	0.65978
50	22.0	13.16300	0.34185	0.65815

Table C continued

Years	Years	\$	\$	\$
51	21.8	13.09463	0.34527	0.65473
52	21.6	13.02626	0.34869	0.65131
53	21.3	12.92370	0.35381	0.64619
54	20.9	12.78526	0.36074	0.63926
55	20.5	12.64168	0.36792	0.63208
56	20.0	12.46221	0.37689	0.62311
57	19.6	12.31145	0.38443	0.61557
58	19.1	12.12301	0.39385	0.60615
59	18.5	11.88745	0.40563	0.59437
60	18.0	11.68959	0.41552	0.58448
61	17.4	11.44028	0.42799	0.57201
62	16.8	11.18681	0.44066	0.55934
63	16.1	10.88140	0.45593	0.54407
64	15.4	10.56290	0.47186	0.52814
65	14.6	10.18725	0.49064	0.50936

For widows 66 years of age or over, the expectations of life and widowhood are deemed to be identical, and Table B applies for both purposes.

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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FURTHER INFORMATION :

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