

FINANCIAL BUDGET MANUAL

1995



Department of Farm
and Horticultural
Management

LINCOLN
UNIVERSITY
Te Whare Wānaka O Aoraki



FINANCIAL BUDGET MANUAL 1995

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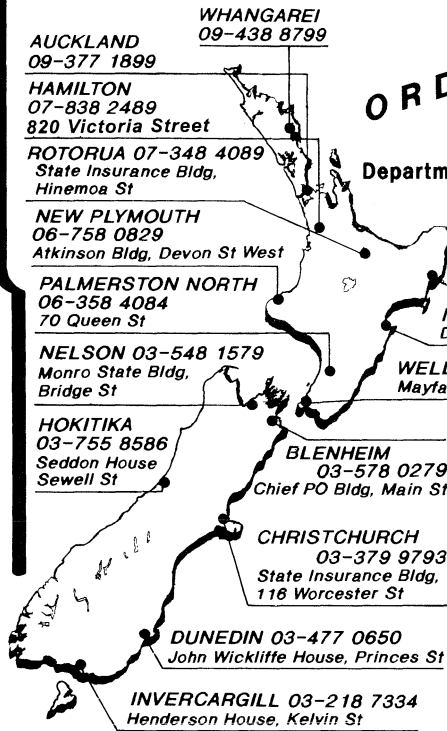
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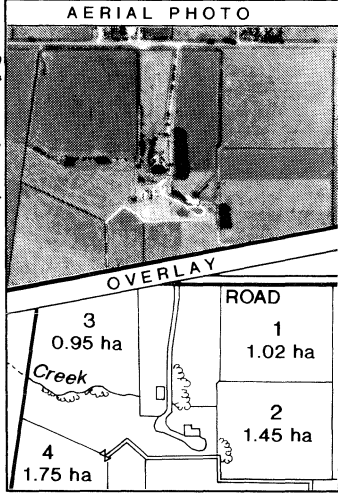
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PREFACE

The "Financial Budget Manual 1995" 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.

The data contained in the Manual is that ruling in January 1995. 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.

We 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. We wish to express our appreciation to Julia Todhunter and Sheryl Frew for their efforts in gathering and collating information, and to Peter Fleming for his assistance with sourcing of 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". Although currently out of print, it is on the point of being updated and 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.

J.R.Oliver, E.S.Burt
EDITORS

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SECTION 6 - INDEX

SECTION 1

PRODUCT PRICES

1.1 MARKET PRICES

1.1.1 Impact of Exchange Rate on Product Prices

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

Table 1 below 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)

Table 1: Farmgate Prices - Effect of a 10% Movement in Trade Weighted Exchange Rates.

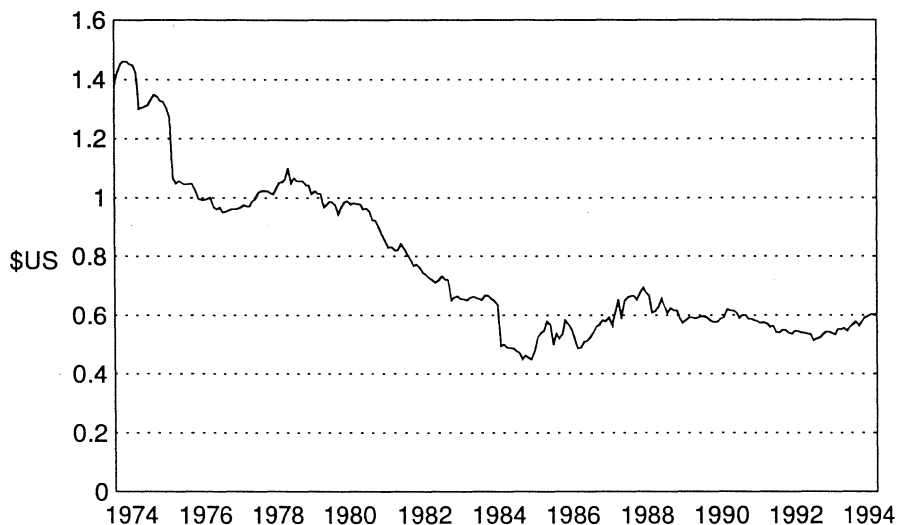
	Appreciation	Depreciation
Lamb	-18%	+22%
Mutton	-21%	+25%
Beef	-13%	+16%
Wool	-10%	+12%

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 1994

Exchange Rates: \$US to \$NZ (1974 to 1994)



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

Year Ended March	1992	1993	1994	1995 F
1 NZ\$ =				
US\$.53	.55	.57
£ stg	.33	.31	.37	.38
Yen	75	66	59	60
A\$.73	.74	.81	.80
DM	.95	.82	.93	.96
TWI ¹	56.5	53.5	55.6	56.1

¹ 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).

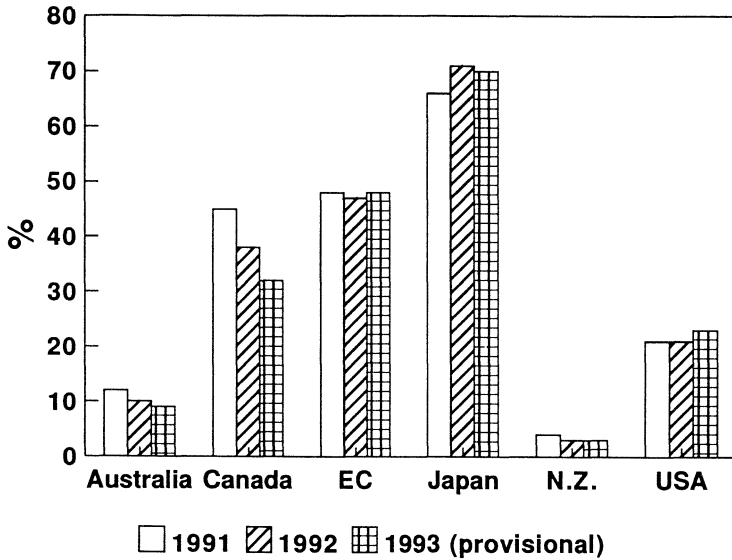
F = forecast

Source: *Situation and Outlook for NZ Agriculture, MAF Policy, June 1994*

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 9, 1995. This type of information is usually available each week in various newspapers and farming journals.

Weight	Grade	North Is Av.	Waitotara	South Is Av.
		\$	(\$ <i>Wanganui</i>)	(PPCS/Alliance)
9.0	A	13.30	17.46	25.44
10.0	YL/PL			24.10
11.0	YL	21.33	21.96	26.94
11.0	PL			25.77
12.0	YL/PL			27.20
13.0	YL	25.20	26.22	31.50
13.0	PL	25.20	26.22	31.67
13.5	YM	27.69	28.84	35.03
13.5	PM	27.49	28.84	33.03
14.0	YM	28.56	29.65	-
14.0	PM	28.35	29.23	-
15.0	YM	31.11	33.66	36.20
15.0	PM	30.96	33.36	36.05
15.0	TM	26.36	27.51	-
15.0	FM	18.34	17.31	-
15.0	CM	19.91	23.31	-
16.0	YM	32.90	35.43	-
16.0	PM	32.74	35.11	-
17.0	YM	34.68	37.20	40.03
17.0	PM	34.51	36.86	39.69
17.5	YX			39.77
17.5	PX			39.68
18.0	YX	36.65	38.97	-
18.0	PX	36.65	38.97	-
19.0	YX	38.44	40.74	42.35
19.0	PX	38.44	40.74	42.26
19.0	TH	34.02	35.61	-
19.0	FH	25.02	24.21	-
21.0	YX	42.03	44.28	-
21.0	PX	42.03	44.28	-
21.5	PH			40.08
22.0	YX	43.83	46.05	-
22.0	PH	43.39	46.05	-
23.0	YX	45.62	47.82	-
23.0	PH	45.16	47.82	-

Weight	Grade	North Is Av.	Waitotara	South Is Av.
		\$	(Wanganui) \$	(PPCS/Alliance) \$
25.0	YX	49.21	51.36	-
25.0	PH	48.71	51.36	-
25.0	TH	43.71	44.61	-
25.0	PH	32.34	29.61	-
27.0	YX	52.80	54.90	-
27.0	PH	52.26	54.90	47.40
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. As at January 1995 there is a 40 cent differential in favour of Southern South Island (South of Dunedin) over Northern South Island based on pelt values.

Source: "N Z Farmer" January 11 1995

1.2.2 Lamb Price Trends

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

	1990/91	1991/92	1992/93	1993/94
14.5 kg lamb (\$/hd)-			(P)	(E)
<i>This price comprises:</i>				
<i>Baremeat schedule (c/kg)-</i>	164.33c	160.42c	240.70c	230.00c
<i>Pelt and wool (\$/hd)-</i>	\$4.11	\$5.68	\$7.01	\$6.40
Lamb "all grades average"-	\$26.04	\$27.97	\$40.16	\$40.00

Figures may not add due to rounding

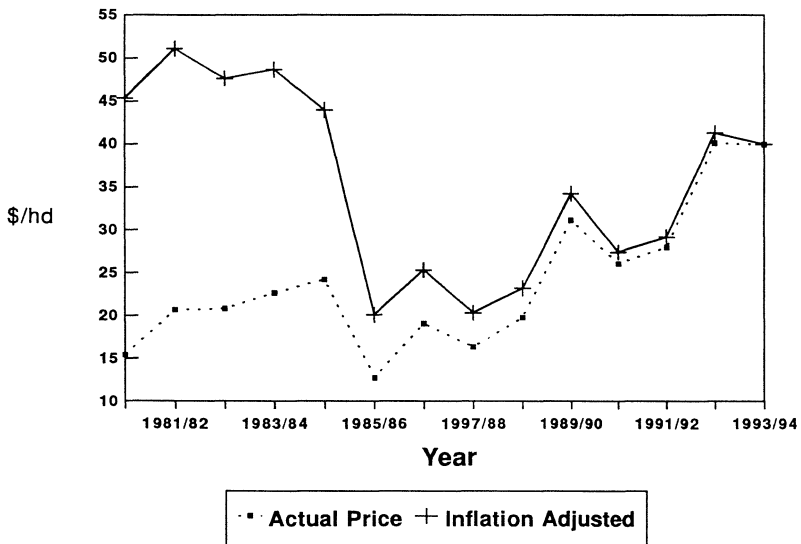
P = Provisional

E = Estimate (as at June 1994)

Prices are at works, for year ended 30 September.

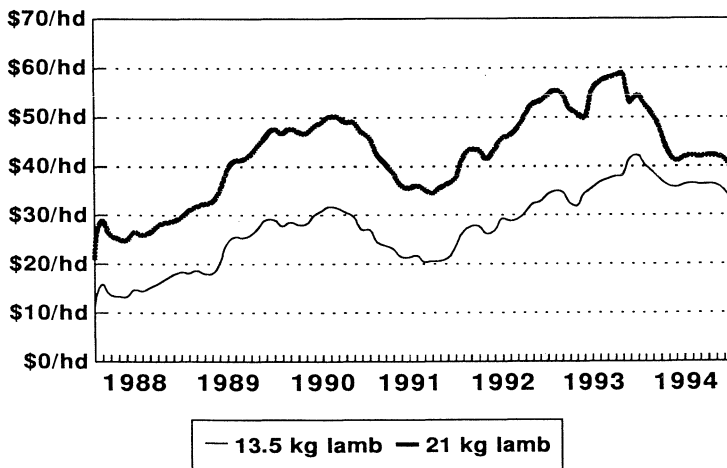
Source: M.A.F., Dept of Statistics, N.Z. Meat Producer's Board, N.Z. Meat and Wool Boards' Economic Service.

(ii) **Graph of Actual and Inflation Adjusted Lamb Prices, 1980 to 1994.**
(PM Lamb Price - September year)



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

(iii) **Graph of the Average Net Export Price Paid for Lambs Weighing 13.5 kg and 21 kg with a 1kg Woolly Pelt (January 1988 to October 1994).**



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

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

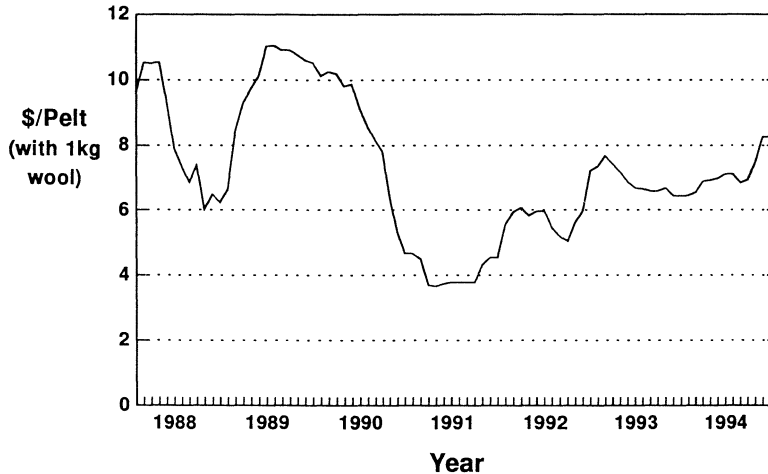
(See Section 1.2.10)

(v) **Store Lamb Prices**

(See Sections 1.2.4)

1.2.3 Lamb Skin Price Trends 1988 to 1994

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



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

1.2.4 Contract Lamb Prices

(i) **Annual Contracts**

AFFCO offer a 'Lamb Plan', an all year round supply programme which works like monthly pools, and there are two options available:

- (1) Commit to a supply agreement for all or part of the 1994/95 season. There is an optional advance payment of \$20 per weaned lamb (8% interest). Slaughter payment is based on the "Lamb plan operating price" see (2) below). Out of season grazing payments are paid fourteen days after slaughter. In 1993, the grazing payments ranged from 75¢ to \$6.75 per head, depending on time of supply (lowest in April, maximum in September, tailing off again until the beginning of November). A renewal incentive of 65¢ per qualifying lamb, paid at slaughter, provided the supplier has supplied in the previous year.

- (2) Enter the lamb plan no later than one week before you wish to supply. The supplier receives 100% of the *lamb plan operating price*, paid 14 days after slaughter. Final pool return is calculated in ¢/kg and is paid two months from the end of the month of slaughter. Cartage is paid by the company.

(ii) Winter/Spring Heavy Lamb Contracts

Contracts for the 1994 winter/spring varied between companies and regions. Some examples are included as a guide.

Alliance offered a guaranteed minimum price of \$2.80 per kg net on lambs with 12 kg to 21.3 kg carcass weights supplied between October and November 1994. *Alliance* also offered a contract to supply between 20 November and 25 December, the premium ranged between \$0.85 and \$2.85 per kg depending on the grade. There was a pelt reduction of \$2.00 per head on all lambs under 12 kg.

Alliance intends to offer winter contracts for lamb in 1995. At time of print no details were available. However the contract will involve a price per kg on specified weights supplied between June and August.

Richmond offered an interest free advance of \$20 per lamb on 75% of the total contracted. The supply period was between 12 July and 1 October 1994, and there was a minimum weight of 13.5 kg. A premium was also offered above schedule price for lambs supplied during this period. A similar contract is anticipated for 1995.

Richmond is planning "Winter Chilled Specials" for 1995 in order to meet increasing market requirements.

(iii) Chilled Lambs for the European Christmas Market

Companies were offering contracts for the October/November period in 1994 to supply this market.

The *Richmond* "New Season Chilled Lamb Christmas Contract" offered suppliers an extra 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 13.4-17 kg and have a GR of up to and including 15. The contract ran between 3 October and 12 November 1994.

Bonus Premium	60c/kg	1st week
	50c/kg	2nd week
	40c/kg	3rd week
	25c/kg	4th week
	10c/kg	5th week
	5c/kg	6th week

AFFCO provides a limited number of chilled lamb for the European market and offers a premium to suppliers in Oct/Nov/Dec for this contract. The suppliers who have supplied this contract before get first option to supply the following year.

(iv) Summer Lamb Contracts

Richmond offer an Easter lamb contract which runs between 30 January and 11 March 1995 for lambs between 15 and 17kg and offer a premium of 15c per kg.

(v) Store Lamb Contracts

Canterbury

Finishing/mixed cropping farmers were offering store lamb producers \$33 to \$40 for lambs delivered in December/January 1993/94. There were no such contracts in 1994/95.

1.2.5 Beta Lamb Price

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

Prices paid by South Island Companies in spring 1992 ranged from about \$19 to \$30 for a 6 to 9 kg Beta lamb. These prices were up slightly on the equivalent 1991 prices.

1.2.6 Slink Skins

The price received for lamb slink skins in 1994 ranged from \$1.50 to \$1.70 per skin and averaged 80c in 1993.

1.2.7 Mutton Schedule (Export)

Below 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	10.37	11.62
17.0	MM	11.17	12.11
17.0	MX1	15.93	17.05
19.0	MM	11.97	-
19.0	MX1	17.29	18.12
19.0	ML1	15.77	18.40
19.0	MP	12.92	10.14
21.0	MX1	18.65	19.19
21.0	ML1	16.97	19.50
23.0	MX1	20.01	20.42
23.0	ML1	18.17	20.42
23.5	MX2	20.82	20.29
23.5	ML2	19.41	20.64
23.5	MH	13.30	-
23.5	MP	14.94	-
25.0	MH		16.45
25.0	ML2	20.37	21.45
27.0	ML2	21.65	22.31
27.0	MH	14.63	-
27.0	MF	8.96	-
27.0	MP	16.52	-
30.0	ML2	23.57	-
30.0	MF		17.55
Pelt	0.5 kg shorn	5.98	7.95

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

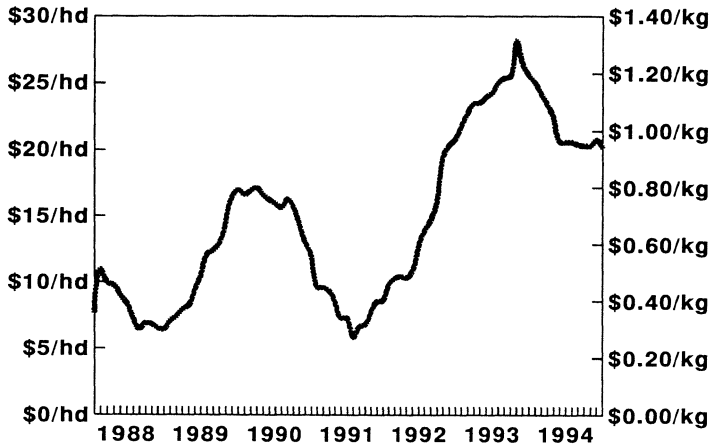
Comment: A line of cull ewes often contains a significant proportion of cutters(MPs) and this must be allowed for when analysing selling options.

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 1995, and the "Press" January 14 1995

1.2.8 Mutton Price Trends (Export)

(i) Graph of the Net Value of a 21kg Ewe with a 0.3kg Pelt (January 1988 to December 1994)



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

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

	1990/91	1991/92	1992/93 (P)	1993/94 (E)
MX1 Mutton (18 kg)-	\$11.72	\$13.15	\$27.33	\$24.10
<i>This price comprises:</i>				
<i>Baremeat schedule (c/kg)-</i>	35.46c	48.27c	122.87c	105.00c
<i>Pelt and wool (\$/hd)-</i>	\$5.19	\$4.28	\$5.21	\$5.20
Mutton "all grades average"-	\$11.69	\$12.42	\$25.76	\$25.00

Figures may not add due to rounding

P = Provisional

E = Estimate (as at June 1994)

Prices are at works, for year ended 30 September.

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

1.2.9 Sheep Prices - Prime Stock (Local Sales)

Note: There is a large amount of meat 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.

Sales Information (three main sale centres) 1994:

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

	<i>Prime Sheep</i>		
	<i>Tuakau</i>	<i>Stortford</i>	<i>Addington</i>
<i>Jan/Feb:</i>			
Lambs	\$28-\$48	\$32-\$54	\$36-\$63
Hoggets	\$29-\$48	\$32-\$50	\$30-\$55
Ewes	\$13-\$32	\$15-\$34	\$15-\$55
<i>Mar/April:</i>			
Lambs	\$29-\$46	\$26-\$42	\$30-\$58
Hoggets	\$23-\$45	\$29-\$47	\$30-\$55
Ewes	\$10-\$33	\$11-\$36	\$15-\$34
<i>May/June:</i>			
Lambs	\$28-\$46	\$15-\$49	\$30-\$56
Hoggets	\$23-\$44	\$25-\$47	\$30-\$47
Ewes	\$10-\$35	\$11-\$35	\$14-\$34
<i>July/Aug:</i>			
Lambs	\$30-\$54	\$18-\$45	\$31-\$52
Hoggets	-	-	\$38-\$55
Ewes	\$15-\$40	\$9-\$37	\$10-\$40
<i>Sept/Oct:</i>			
Lambs	\$34-\$48	\$28-\$52	\$28-\$50
Hoggets	\$24-\$40	\$25-\$38	\$38-\$47
Ewes	\$10-\$33	\$12-\$40	\$10-\$30
<i>Nov/Dec:</i>			
Lambs	\$17-\$49	\$9-\$45	\$22-\$45
Hoggets	\$12-\$44	\$27-\$42	\$37-\$45
Ewes	\$4-\$33	\$11-\$38	\$8-\$23

* 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" 1994 and 1995 Issues; Lincoln University.

1.2.10 Sheep Prices - Store and Breeding Stock

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

(i) Average Prices for Store Stock (N.Z. Regions) 1988 to 1994

Store Lamb Prices

	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
1992-93p	26.46	28.88	29.91	28.30	31.00
1993-94e	26.98	30.77	33.64	30.78	36.85

Store Two-Tooth Ewe Prices

	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
1992-93p	46.07	47.30	44.88	45.35	58.00
1993-94e	48.71	55.17	47.22	71.50	68.31

Store Mixed Age Ewe Prices

	North/South <u>Auckland</u>	East <u>Coast</u>	Taranaki <u>Manawatu</u>	Marlborough <u>Canterbury</u>	Otago <u>S'Land</u>
	\$	\$	\$	\$	\$
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
1992-93p	31.79	36.66	34.33	29.83	39.69
1993-94e	34.72	39.66	38.18	41.23	49.41

p = provisional

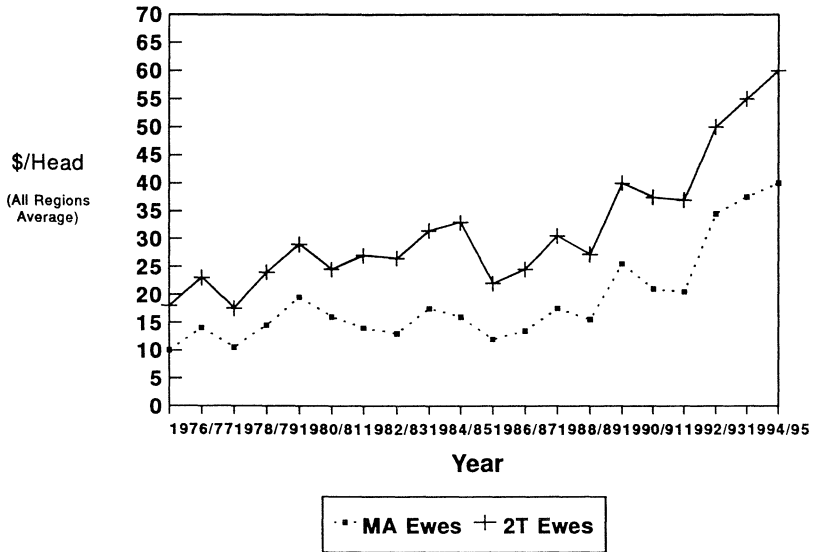
e = estimate

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

(ii) N.Z. Average Purchase Price for Ewes (1975 to 1994)

Sheep Purchase Prices

(\$/Head - All Regions Average)



N.B. 1992/93 figures are provisional.
1993/94 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 (1993/94 and 1994/95)

(Clean Market Price - cents per kg)

Description and Micron/Category	Colour (Y-Z)	Length mm	1994/95 (to Dec 1994)		1993/94	
			High	Low	High	Low
			(cents per kg)		(cents per kg)	
Merino						
18 Fleece	1	75	2643	1915	1408	1050
19 Fleece	1	75	2115	1692	1065	862
21 Fleece	1	80	1335	990	763	578
23 Fleece	1	85	804	680	650	188
21 Pieces	2	60	940	940	610	480
21 Bellies	2	60	957	735	580	442
Halfbred and Corriedale						
25 Fleece	3	90	740	640	562	443
27 Fleece	3	95	695	610	543	428
29 Fleece	3	100	663	512	435	418
31 Fleece	3	100	620	553	492	427
28 Pieces	6	75	531	531	434	366
28 Bellies	6	75	583	520	436	358
28 Lox	6	40	496	460	378	233
26 Lambs	1	50	-	-	520	520
28 Crutchings	3	50	500	470	250	250
Crossbred						
32 Fleece	4	-	611	587	503	244
33 Fleece	4	110	595	532	483	422
35 Fleece	2	125	562	504	431	377
35 Fleece	5	125	560	462	499	375
37 Fleece	2	125	490	438	413	366
37 Fleece	5	125	487	417	404	359
37 Cott	7	115	460	390	350	333
35 Pieces	9	100	440	401	343	290
35 Bellies	10	100	435	388	340	287
35 Lox	10	50	402	304	289	217
37 Crutchings	5	65	416	363	330	237

See over page for Crossbred Second Shear prices.

Description and Micron/Category	Colour (Y-Z)	Length mm	1994/95 (to Dec 1994)		1993/94	
			High	Low	High	Low
			(cents per kg)		(cents per kg)	
Crossbred						
Second Shear						
37 Fleece	2	100	468	394	439	339
37 Fleece	5	100	450	390	370	346
37 Fleece	2	85	465	386	400	333
37 Fleece	5	85	448	386	381	330
37 Fleece	2	75	462	381	390	327
37 Fleece	5	75	432	382	375	325
37 Fleece	2	65	453	375	369	321
37 Fleece	5	65	407	366	348	305
35 Bellies	8	65	396	335	302	245

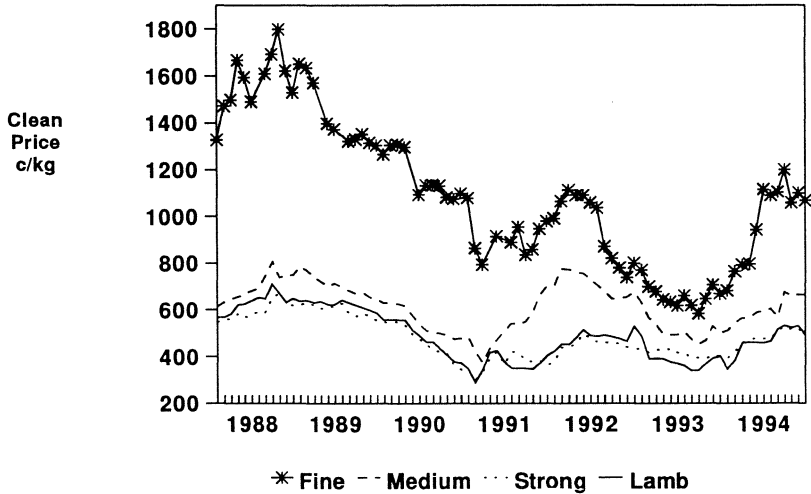
Source: New Zealand Farmer

1.3.2 Wool Price Trends

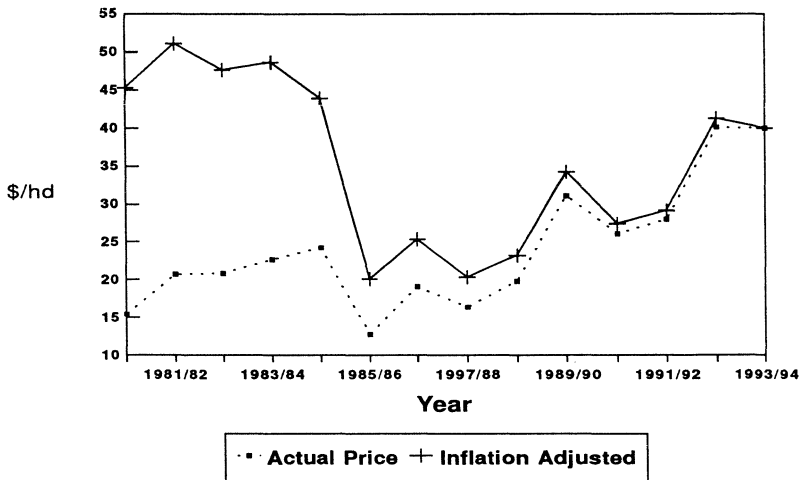
(i) Price Indicators 1988-94 (Source: "N.Z.Farmer", Lincoln University)

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

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



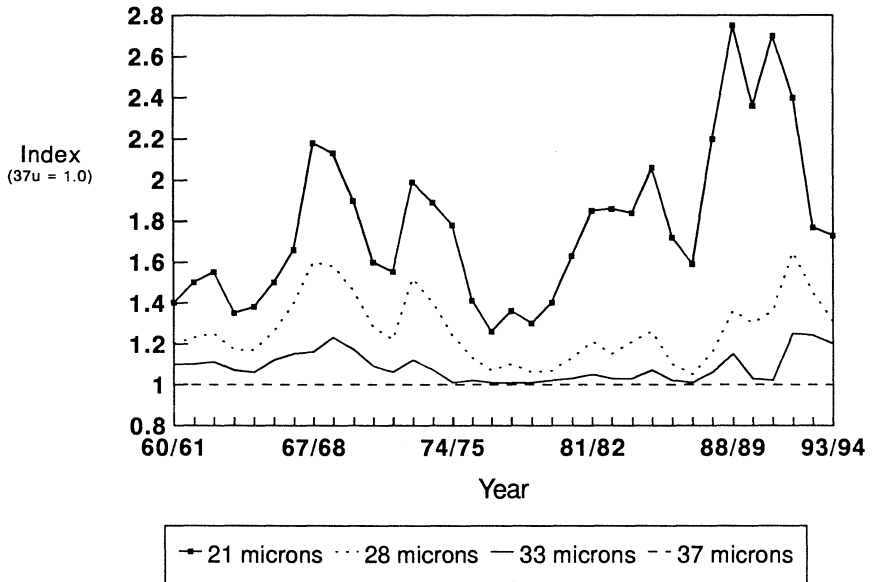
(ii) Graph of Actual and Inflation Adjusted Greasy Wool Price
(Average Auction Price 1981 to 1994 - year ended June).



Sources : Lincoln University; Wools of New Zealand.

1.3.3 Wool Price Ratios 1960 to 1994

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



u = Micron

Sources: 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 *per head* and *per kg*, as at January 16 1995. This information is usually available weekly in various newspapers and farming journals.

Net Price per head:

Grade	CW (kg)	Benmore (Auckland)	Waikato Meats	Alliance/PPCS (South Island Average)	Phoenix
		\$/head	\$/head	\$/head	\$/head
P2 Steer	280	620	620	689	663
K2 Steer	280	620	620	692	649
G2 Steer	280	589	592	644	607
P2 Heifer	210	448	459	399	433
M Cow	180	263	291	315	293
Bull	260	534	561	593	575
Bull	280	592	620	652	635
Bull	310	673	705	735	706

Net Price per kilogram:

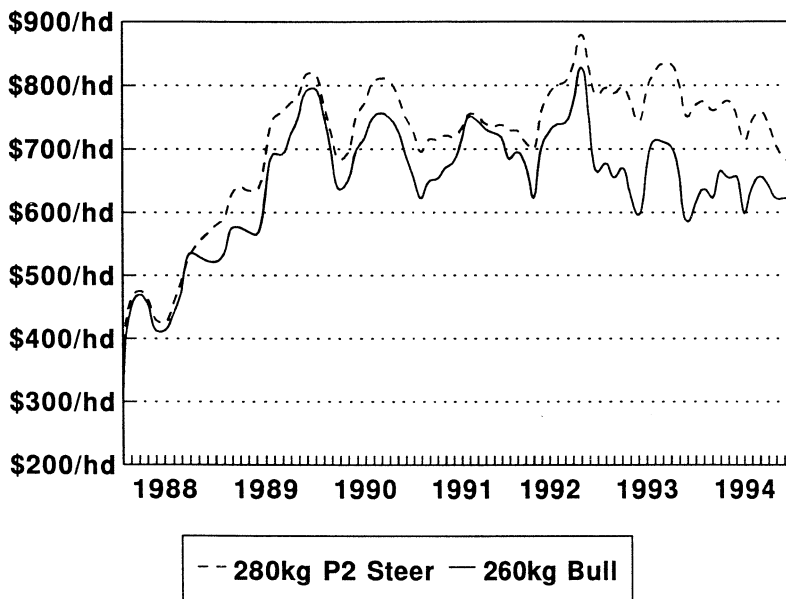
Grade	Weight Range	Benmore (Auckland)	Waikato Meats	Alliance/PPCS (South Island Average)	Phoenix (Southland)
	(kg)	c/kg	c/kg	c/kg	c/kg
P2 Steer	271-295	221	221	246	237
K2 Steer	271-295	221	221	247	232
G2 Steer	271-295	210	211	230	217
P2 Heifer	196-200	213	218	192	206
M Cow	171-195	146	162	175	163
Bull	246-270	205	216	228	221
Bull	271-295	211	221	233	227
Bull	296-320	217	227	237	228

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

Source: "N.Z. Farmer" January 11 1995, Individual Companies and the "Press" January 14 1995

1.4.2 Beef Price Trends (Export)

- (i) Graph of the Net Price Paid for 280 kg P2 Steer and 260 kg Bull (January 1988 to December 1994)



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

- (ii) Cow Beef

	1990/91	1991/92	1992/93 (P)	1993/94 (E)
<i>Cow M Grade (145-170 kg)-</i>	217c	211c	222c	195c
<i>Cow M Grade (average per hd)-</i>	\$342	\$334	\$350	\$308

P = Provisional

E = Estimate (as at June 1994)

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 (P)	1993/94 (E)
<i>Bull Grade (220-245 kg)-</i>	268c	278c	286c	255c
<i>Bull Grade (average per hd)-</i>	\$627	\$651	\$670	\$597

P = Provisional

E = Estimate (as at June 1994)

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 1.5.7 and 1.5.8

P.P.C.S. was offering the following forward contract prices for early 1995 (January to March).

Weight range (kg)	\$ per kg			
	<u>Steer</u>		<u>Bull</u>	
	Jan	Feb/Mar	Jan	Feb/Mar
220.5 to 245.0	2.50	2.18	2.35	2.05
245.5 to 270.0	2.65	2.33	2.50	2.20
over 270.5	2.70	2.38	2.55	2.25

Riverlands (a subsidiary of Huttons Kiwi) (1994/95)

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 11.5% per annum flat of the purchase price) and a management fee of up to \$9.00 per head. The farmer pays all "on farm" costs including animal health and deaths.

A minimum of 100 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 carcass 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.

At February 1995: the South Island scheme is used to supply the Blenheim works and extends south to Timaru and north west to Motueka/Takaka, south west to Springs Junction/Reefton.

The North Island scheme supplies *Riverland's* Eltham and Manawatu plants and extends over the North Island excluding North Auckland and Poverty Bay.

AFFCO

Dairy Beef Advantage Pool

(a) Sharefarm Option:

Dairy farmers can sell their bull calves to the pool, receiving an advance payment of 50% of market value. They will also be paid a progress payment when bulls are one year old, an interim payment after slaughter (less previous advances and interest, 6%) and final pool payment. The market returns are shared 50/50 with the farmer who receives the bull calves (from the pool) for rearing and finishing. This person does not pay for the calves, but receives progress payments (six monthly) of up to half the gain in value of each bull, an interim payment at slaughter and a final pool payment.

Note: The pool payout over the 1992/93 season averaged 59¢ per kg above schedule rates.

(b) Bull Farmers and Prime Beef Farmers Option:

The pool will accept stock at any time between weaning and 9 months, paying an optional advance at this time, and making progress payments at 6 monthly intervals, plus interim and final pool payments as in (a) above. All advance and progress payments are interest bearing (6%).

Note: See pool payout in (a) above.

Primeplan Pool

Prime beef farmers can commit at least 30 yearling steers or heifers and nominate an intended supply month. Optional advance payments and progress payments (50% of market value of the stock) can be received (interest bearing, 6%). In addition to payment after slaughter (plus a later final pool payment) farmers can receive a grazing payment if they supply stock from July to October. Grazing payments in 1994 ranged from \$4.50 per head (24 July) to a maximum of \$70.00 (9 October).

The # 1 Bull Pool

Bull beef farmers could commit at least 10 bulls aged 3 months or more, for slaughter no later than March 1996. Terms and conditions are similar to other AFFCO pools (see above). The pool payout over the 1992/93 season averaged 59¢ above schedule rates.

The Co-Operative Cow Pool

Spring and autumn pools are available, which have traditionally earned suppliers 10¢ to 20¢ per kilogram above schedule and premium (about \$25 per head).

A Cow Grazing Pool is also available, which offers higher returns by deferring slaughter until winter.

Richmond

Winter contracts were available for heifers, steers and bulls (min. 270.5 kg) supplied between 4 July and 26 August 1994. Payment was based on the schedule price at time of slaughter, an interest free advance was available, with an additional grazing payment of 1.5 cents per kg carcase weight per week being made from 30th June to agreed slaughter date. As at January 1995 contracts for 1995 had not been finalised, but are expected to be in a similar form to the 1994

contracts. *Richmond* have various financing options available for good performing suppliers.

Phoenix Meat

The 1994/95 *Phoenix* Calf Scheme involves the bailment of \$220 per head at 7% interest. This is repayable at stock sale time by the Company retaining \$325 which covers initial bailment, interest, administration fee and an allowance for deaths..

***Elders* Calf Rearing or Purchase Loan Assistance**

Loans (at 11% interest) were available from *Elders* in 1994 to assist farmers to either rear their own calves or buy in for future resale.

Up to \$180 was available to buy and rear each calf through to 120 days for sale in December 1994/January 1995.

1.4.4 Calf Slink Skins

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) 1994:

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

Prime cattle are sold on a dollar per kilogram liveweight basis at Addington and on a per head basis at Stortford and Tuakau.

	<u>Tuakau</u> \$/head	<u>Stortford</u> \$/head	<u>Addington</u> \$/kg
Jan/Feb:			
Steers	\$592-\$1170	\$720-\$915	\$1.20-\$1.68
Heifers	\$460-\$942	\$500-\$875	\$1.44-\$1.65
Cows	\$200-\$890	\$497-\$575	\$1.10-\$1.50
Mar/April:			
Steers	\$556-\$1125	\$702-\$950	\$0.95-\$1.66
Heifers	\$450-\$910	\$515-\$790	\$1.22-\$1.53
Cows	\$240-\$806	-	\$0.94-\$1.18
May/June:			
Steers	\$500-\$1290	\$610-\$985	\$1.14-\$1.51
Heifers	\$452-\$865	\$420-\$755	\$1.28-\$1.47
Cows	\$212-\$850	\$402-\$635	\$0.81-\$1.08
July/Aug:			
Steers	\$535-\$1000	\$552-\$940	\$1.26-\$1.51
Heifers	\$467-\$810	\$462-\$750	\$1.30-\$1.55
Cows	\$180-\$792	\$320-\$535	\$0.88-\$1.13
Sept/Oct:			
Steers	\$530-\$1070	\$470-\$930	\$1.42-\$1.56
Heifers	\$455-\$800	\$402-\$780	\$1.32-\$1.46
Cows	\$200-\$940	\$240-\$558	\$0.62-\$1.10
Nov/Dec:			
Steers	\$500-\$1155	\$324-\$1020	\$1.24-\$1.46
Heifers	\$404-\$825	\$264-\$695	\$1.17-\$1.38
Cows	\$138-\$780	\$433-\$580	\$0.73-\$0.96

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

Source: New Zealand Farmer 1994 and early 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 1994:

Store 2 Year plus Steer Prices

	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
1992-93p	691	750	678	-	590
1993-94e	659	770	643	-	550

Store 1 to 1.5 Year Steer Prices

	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
1992-93p	513	598	564	489	540
1993-94	482	618	595	486	517

Store Weaner Steer Prices

	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
1992-93p	306*	402	396	437	394
1993-94e	294*	392	416	419	414

* Prices influenced significantly by the sale of bobby calves.

Store Weaner Heifer Prices

	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
1992-93p	233	291	274	420	332
1993-94e	223	301	293	404	351

Store 1 to 1.5 year Heifer Prices

	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
1992-93p	383	458	337	432	400
1993-94e	358	478	388	439	408

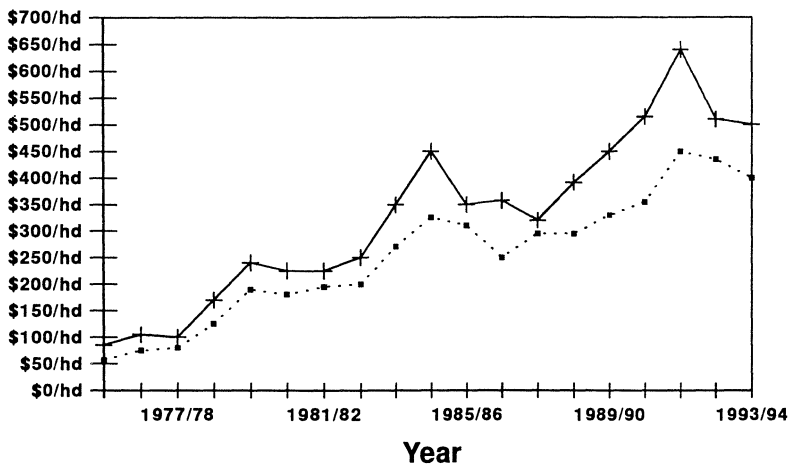
Store Cow Prices

	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	-
1992-93p	423	527	553	-	-
1993-94e	386	477	498	-	-

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 1994)



--- Heifers 1.5 Yr + Steers 1.5 Yr

Note: 1992/93 figures are provisional
1993/94 figures are estimates

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

1.5 DAIRY PRODUCE

1.5.1 Milkfat Price Trends

Each season, the New Zealand Dairy Board announces an advance price to be paid, per kg milksolids/milkfat, 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>1988/89</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>
Northland	567c/kg	595c/kg	390c/kg	544c/kg	611c/kg	318c/kg
N.Z. Dairy Group				600c/kg	650c/kg	339c/kg
Kiwi	590c/kg	645c/kg	450c/kg	610c/kg	651c/kg	339c/kg
Tui (Manawatu)	575c/kg	615c/kg	430c/kg	593c/kg	642c/kg	330c/kg
Marlborough	557c/kg	605c/kg	394c/kg	560c/kg	600c/kg	300c/kg
Alpine	510c/kg	580c/kg	380c/kg	540c/kg	595c/kg	311c/kg
Otago Co-op	625c/kg	645c/kg	460c/kg	590c/kg	624c/kg	313c/kg

¹ = cents/kg milkfat

² = cents/kg milksolids

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

The "season 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.

Milkfat 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>Advance-</i>	337.3c	319.4c	296.3c	336.4c	474c	536c
<i>Final-</i>	69.1c	78.7c	58.3c	70.8c	97c	94c
<i>Season Average-</i>	406.4c	398.1c	354.7c	406.8c	570c	630c

(See next page for 1990 to 1995 payouts)

	1990/91	1991/92	1992/93	1993/94
<i>Advance-</i>	361c	500c	548c	504.60c
<i>Final-</i>	62c	84c	91c	72.59c
<i>Season Average-</i>	423c	584c	639c	577.19c

Note: The above figures are all cents / kg milkfat

Milksolids in wholemilk for manufacture (cents per kg):

	1993/94	1994/95
<i>Advance-</i>	290.00c	235.00 to 245c *
<i>Final-</i>	41.72c	
<i>Season Average-</i>	331.72c	270.00 to 290.00c (E)

Note: The above figures are all cents / kg milksolids

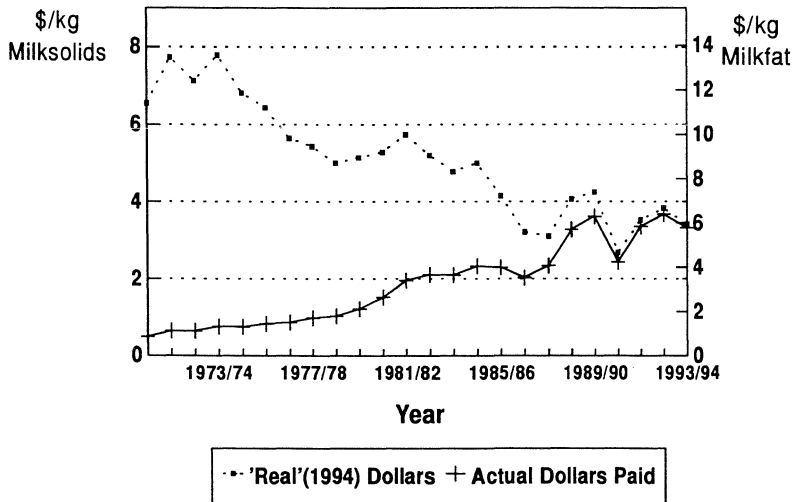
* advance payment up to January 1995

(E) = Estimate

Source: New Zealand Dairy Board.

(iii) Average Payouts Since 1971 in Actual Dollars and in "Real" Dollars (Based on the Value of the Dollar in December 1994 and adjusted for inflation).

This graph can be read in either \$/kg Milksolids or \$/kg Milkfat as required.



Source: New Zealand Dairy Board.

1.5.2 Penalties for Poor Quality Milk

As an example of the penalties imposed by Dairy Companies for poor quality milk, the following information from *Tui Milk Products Ltd* for the 1994/95 season is quoted:

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 (see over page).

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:

Note: 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.

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

In the Auckland and Waikato regions, a premium of 32.7631 cents per litre above the manufacturing payout was paid for contract milk in May, June and July 1994. The premium for winter 1995 will be 31 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.

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 Whole Milk for Town Supply

(See also Section 1.5.2 for milk penalties).

In the North Island most Town Supply factories have amalgamated with the Seasonal Supply factories, and payouts to Town Milk suppliers are on a premium per litre basis, varying between months and areas (see Winter Milk Contracts *Section 1.5.3*).

In the South Island the two industries are still separate at present.

Indicative prices for the current (1994/95) season for all year round quota is 45 cents per litre. Winter contracts (May to August inclusive) for qualifying suppliers is \$5.80 per kg milk solids. Surplus milk (over quota and over winter milk contract) is \$3.10 per kg milk solids.

1.5.5 Sire Proving Payments

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

\$47 for heifers herd tested under self sample system

\$58 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.

Source: Dairy Exporter August 1994.

1.5.6. Dairy Cattle Sales (1994/95)

Note: The dry conditions throughout the country up to January 1995 make it very difficult to predict prices.

Actual prices for spring 1994 and predictions for 1995 for dairy cattle are presented below for five regions:

Waikato

Class		Spring 94		Autumn 95	
		High BI	Low BI	High BI	Low BI
<i>Mixed age cows</i>	Friesian	\$1250	\$1050	\$1250	\$1000
	Jersey	\$1150	\$950	\$1150	\$900
<i>Rsg 2yr heifers</i>	Friesian	\$750	\$700	\$1000	\$900
	Jersey	\$650	\$620	\$800	\$700
<i>Rsg 1yr heifers</i>	Friesian	\$470	\$420	\$550	\$500
	Jersey	\$370	\$320	\$450	\$400
<i>4-day heifer calves</i>	Friesian				
	& Jersey	\$1.40/BI unit	\$1.00/BI unit		
		\$195	\$130		

Bay of Plenty

Mixed age cows for forward delivery in June 1995 were selling for \$1000 to \$1200 in January 1995. This is approximately the same as 1994. In early 1995 *rising 2 year olds* were worth up to \$1000 and *rising 1 year olds* between \$500 and \$600. Spring 1994 prices for *rising 2 year olds* and *rising 1 year olds* were similar.

Taranaki

	Winter/Spring 1994	Summer 1994/95	Winter/Spring 1995 (E)
<i>Mixed age Cows</i>	\$900-\$1200	\$900-\$1200 (for 1 June Delivery)	\$900-\$1200
<i>Rsg 2yr heifers</i>	\$800-\$1000		\$800-\$1100
<i>Rsg 1yr heifers</i>	\$600-\$700	\$500-\$600	\$600-\$700
<i>Heifer calves</i>	\$110-\$140 (J) \$130-\$150 (F)	- \$320-\$370	\$130-\$140 (J) \$150-\$160 (F)
<i>Dairy Herd</i>			
<i>Clearing Sales</i>	\$900-\$1200	-	\$900-\$1200

Manawatu/Wairarapa

	Winter/Spring 1994		Summer/Autumn 1995 (E)
	High BI	Low BI	
<i>Mixed age Cows</i>	\$1100-\$1150(F) \$1000-\$1100(J)	\$900(F) \$800(J)	\$900-\$1150(F) \$800-\$1100(J)
<i>Rsg 2yr heifers</i>	\$1000-\$1050(F) \$900-\$950(J)	\$700-800(F) \$650-\$750(J)	\$700-\$1050(F) \$650-\$950(J)
<i>Rsg 1yr heifers</i>	\$400-\$450(F) \$350(J)	\$250-\$300(F) \$200(J)	\$500-700(F) \$450-650(J)
<i>4-day Heifer calves</i>	\$100-\$130	\$40	

Canterbury

In July 1994 *mixed age Friesian cows* were selling for \$1075 to \$1125. It is estimated that July 1995 prices will be in the region of \$1075 to \$1125 (forward sales for delivery 1 June 1994 were averaging this in December 1994 although there were fewer herds on the market then.) *Rising 2 year in-calf heifers* averaged \$1000 to \$1050 in July 1994 and are expected to hold this value through the winter of 1995. This is based on forward sale figures in December 1994 (delivery 1 June 1995). *Rising 1 year heifers* averaged \$550 in July 1994 and are expected to be selling for approximately \$550 in July 1995. Recorded *heifer calf* prices in spring ranged from \$160 to \$180 per head for four day old calves. Weaned heifer calves averaged \$430 to \$450 at the same time.

Southland

With the rapid development of dairy farming in this region stock prices are higher than the national average. Transport costs Hamilton to Southland are \$150 to \$180 per cow. *Mixed age cows* were selling for \$1100 to \$1300 in January 1995.

Heifers are expected to averaged \$850 to \$1050 (rising 2 year in-calf) in February /March 1995.

Weaned heifer calves were selling for an average of \$480 to \$550 in spring 1994. There were few local calves available.

1.5.7 Dairy and Dairy-cross Calves (Refer also to *Sections 1.4.3 and 1.5.8*)

(i) Calves sold for rearing (spring 1994):

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

In the Waikato and Bay of Plenty regions four day old bull calves were fetching \$90 to \$110, white faced heifers \$85 and Friesian cross heifers \$75 depending on quality. Farm gate prices in Canterbury, for beef cross calves were approximately \$125 per head, with occasional sales to \$180. In Southland Friesian beef calves made \$100 to \$120 for the middle range.

Prices averaged \$120 to \$140 in 1993.

(ii) Bobby Calf Price at Farm Gate: (Pool average)

1989	1990	1991	1992	1993	1994
\$49.20	\$52.90	\$52	\$55	\$45.6	\$49.0

(Source: NZ Dairy Board, Ministry of Agriculture and Fisheries)

1.5.8 Dairy Beef Weaners

(Refer also to *Section 1.4.3*)

In the Waikato, top quality weaner calves were fetching \$295 to \$305, medium quality \$245 to \$295 and poorer calves up to \$245 in December 1994 (weight range 90 to 110 kg).

In Canterbury 100 kg weaner bull prices were \$280 in December 1994 compared to \$350 per head in December 1993.

1.5.9 Cow Beef

- See *Section 1.4.2 (ii)*

1.6 DEER PRODUCTION

1.6.1 Venison Schedule (Export)

Schedule information is available weekly from a number of sources.

Below is an example for the week beginning January 9 1995 (*PPCS* prices are for the week commencing January 16 1995):

Gross Venison Prices offered: (dollars per kg carcase weight)

Grade	Weight range kg	North Island			South Island		
		Summit	Duncan	Mair	Mair	Duncan	PPCS
		\$	\$	\$	\$	\$	\$
<i>Hind</i>							
AP	30	45	62	57	56	67	109
AP	37	102	110	106	104	122	134
AP	40	111	120	115	113	133	182
AP	45	170	163	168	178	186	205
AP	50	-	212	210	214	216	250
AP	55	254	247	248	252	254	275
AF 1/AT	50	175	144	188	149	143	186
AF 2	70	192	184	188	187	190	207
<i>Stag</i>							
AP	40	115	124	119	117	137	-
AP	45	175	167	173	182	191	209
AP	50	228	217	215	219	221	255
AP	55	259	253	254	258	260	280
AP	60	283	276	277	282	284	300
AP	65	307	300	301	306	309	325
AP	70	297	313	318	320	323	338
AP	75	318	336	337	336	335	363
AP	80	340	339	344	350	350	387
AP	85	362	361	366	373	372	411
AF 1/AT	60	217	186	196	201	185	223
AF 2	70	195	184	192	190	190	207

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

Fallow Schedule (for week beginning 9 January 1995):

(gross dollars per kg carcase weight) **Grade - AP**

Weight -	16 kg	18 kg	21 kg	24 kg	27 kg	30 kg
"Mair"						
Bucks	\$25	\$54	\$72	\$93	\$105	\$93
Does	\$23	\$52	\$70	\$90	\$102	\$90

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

Source: N.Z. Farmer January 11 1995, "Press" January 14 1995

1.6.2 Venison Price Trends

(i) Venison Schedule prices 1989 - 1994 (year ended 30 June)

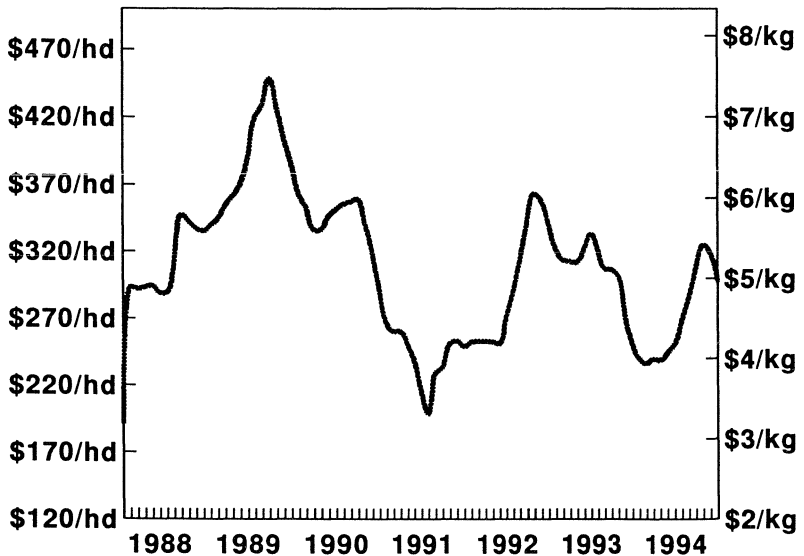
	1989/90	1990/91	1991/92	1992/93	1993/94(E)
Grade AP2 (50-65 kg) (\$/kg)	\$6.30	\$4.84	\$4.24	\$5.50	\$4.55
Av 40-50 kg Hinds (\$/kg)	\$4.29	\$3.24	\$2.70	\$4.50	\$4.10

E = Estimate (as at April 1994)

Prices are net of GIB levy.

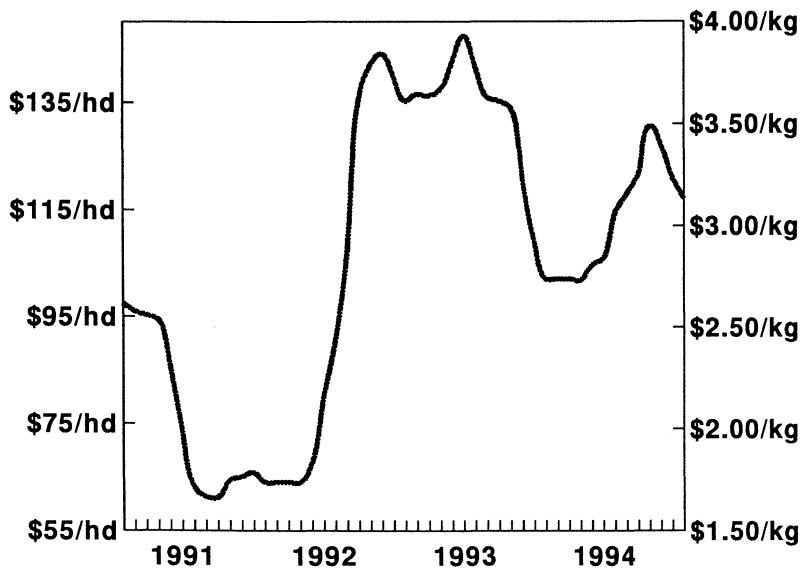
Sources: Department of Statistics, Ministry of Agriculture and Fisheries.

(ii) Graph of Average Schedule Price for AP Grade Venison (60 kg Animal) 1988 to 1994



Sources: Lincoln University; "N.Z. Farmer" 1988-1994

(iii) Graph of Average Schedule Price for AP Grade Venison (37 kg hind) 1991 to 1994



Sources: Lincoln University; "N.Z. Farmer" 1991-1994

1.6.3 Deer - Live Sales

Note: Livestock prices vary markedly through the year and between districts.

Livestock Prices as at January 1995

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

- Weaner Hinds - \$80 to \$130.
- Yearling hinds - \$250 to \$280 (TB accredited).
- Adult hinds - \$260 to \$300 (TB accredited).
- Weaner Stags - Range from \$160 to \$220.
- Yearling Stags - Range from \$260 to \$300
- Rising 2 Yr old Stags - Range from \$300 to \$350.
- Stags (velveting) - Range from \$600 to \$900 depending on velvet production
- Stags (breeding) - Reds \$3,000 to \$4,000. Top stags \$33,000
- Elk/Wapati \$3,000 to \$4,000. Top stags \$20,000

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

1993/94 Season Average Prices

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

Source: MAF

1.6.4. Venison Contracts

P.P.C.S. was offering the following forward contract prices for early 1995 (January to March)

Weight range (kg)	\$/kg					
	Stags			Hinds		
	Jan	Feb	Mar	Jan	Feb	Mar
AP1 85.1+	4.50	4.15	4.05	4.40	4.05	3.95
AP2 70.1-85	5.00	4.65	4.55	4.90	4.55	4.45
AP3 60.1-70	5.15	4.80	4.70	5.05	4.70	4.60
AP4 50.1-60	5.20	4.85	4.75	5.10	4.75	4.65
AP5 40.1-50	5.00	4.65	4.55	4.90	4.55	4.45
AP6 30.1-40	4.10	3.75	3.65	4.00	3.65	3.55
AP7 up to 30	3.00	2.65	2.55	2.90	2.55	2.45

1.6.5 Velvet Pool Prices

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

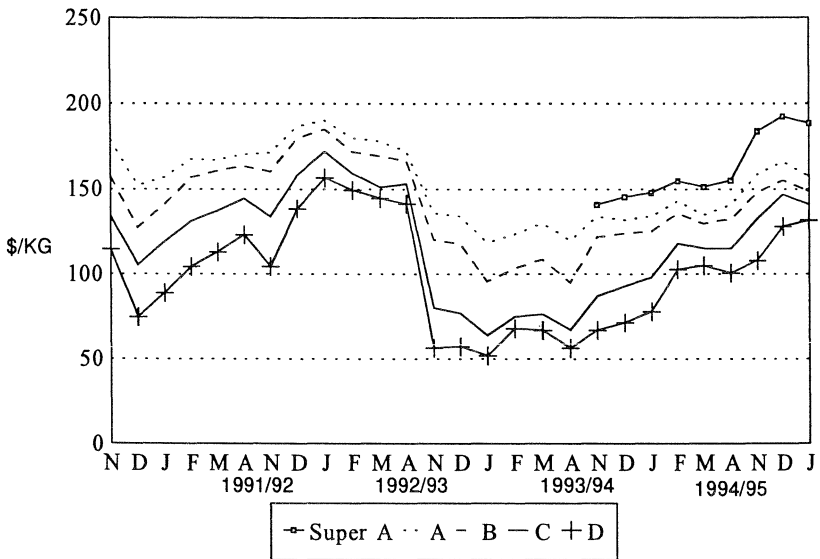
	1994/95	1993/94	1992/93	1991/92
Super A	\$176-\$199	\$134-\$148	\$121-\$148	\$217-\$219
A 1 & 2	\$148-\$181	\$119-\$144	\$108-\$145	\$176-\$189
B 1 & 2	\$137-\$162	\$104-\$137	\$82-\$134	\$166-\$190
C 1 & 2	\$119-\$155	\$71-\$107	\$52-\$98	\$154-\$179
D 1 & 2	\$103-\$134	\$56-\$87	\$41-\$75	\$139-\$168
E	\$93-\$111	\$35-\$60	\$32-\$56	\$116-\$145
Manufact.	\$18-\$29	\$18-\$29	\$17-\$39	\$68-\$81
Taiwan 1	\$155-\$177	} \$60-\$127	\$90-\$126	\$156-\$168
2	\$120-\$138		\$85-\$124	\$150-\$161
3	\$131-\$147		\$81-\$114	\$155-\$168
4	\$80-\$110		\$69-\$113	\$136-\$159

	1994/95	1993/94	1992/93	1991/92
Spiker 1	\$90-\$129	\$40-\$86	\$49-\$75	\$97-\$141
2	\$71-\$112		\$34-\$66	\$100-\$110
Regrowth	\$45-\$98	\$22-\$52	\$11-\$36	\$43-\$98
Overgrown	\$60-\$121	-	\$26-\$86	\$98-\$148
Damaged	\$55-\$156	\$43-\$98	\$32-\$100	\$126-\$156
Wapati:	-	\$111-\$158	\$230-\$238	-
Long 2	\$177	-	-	-
Short 2	\$160-\$165	-	-	-
Short 3	\$154-\$154	-	-	-

These figures represent a range of prices paid over the November to January period. Prices are net of GIB Levy of \$4.50 per kg, handling/grading charges (\$4 per kg) and commission of 3.5%.

Source: Velpool Holdings Ltd.

(ii) Velvet National Average Monthly Prices 1990 To 1995 (to January)



Source: Game Industry Board.

(iii) Wapati Velvet 1994

(See also (i), previous page)

The following prices are from the South Island sale (December 1994), where four tonnes was sold.

Supreme	\$251	
	Long	Short
1	\$235.00	\$235.00
2	\$221.00	\$221.35
3	\$185.11	\$185.11
4	\$185.11	\$185.11

Source: Wrightsons

(iv) Fallow Velvet

At time of printing (February 1995) there had been only a few significant sales of Fallow velvet for the 1994/95 season. There were only sales of small quantities in 1993/94

		\$ per kg	
	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. The following example is for the week beginning 19 January 1994 (prices are \$ per head).

Weight kg carcase weight	<i>AffCo</i>
4	-\$1.59
6	\$3.81
8	\$5.61
10	\$13.91
12	\$17.01
14	\$20.11
16	\$24.01
18	\$27.21
20	\$8.41

Source: "N.Z. Farmer", January 11 1995

(ii) Prices in Past Seasons:

Average prices were as follows for 12 kg goats:

	North Island	South Island
1994/95	\$14.89	\$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 1994/95 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. 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 1994, 1993 and 1992:

Grade	1994	1993	1992
	Average Pool Price	Average Bin Price	Average Bin Price
	\$NZ/kg	\$NZ/kg	\$NZ/kg
A O Super Fine Kid (ASFK0)	\$17.00	\$11.00	-
A Super Fine Kid (ASFK1)	\$13.00	\$8.50	\$16.00
B Super Fine Kid (BSFK1)	\$7.50	-	-
A O Kid (AK0)	\$14.00	\$10.00	-
A Kid (AK1)	\$8.00	\$7.00	\$8.50
A 2nd Kid (AK2)	\$7.50	\$5.00	\$6.50
A O Young Goat (AYG0)	\$10.00	\$7.00	-
A Young Goat (AYG1)	\$9.00	\$5.30	\$7.50
A 2nd Young Goat (AYG2)	\$4.80	\$4.80	\$6.00
B O Kid (BK0)	\$9.00	\$7.00	-
B Kid (BK1)	\$7.50	\$4.50	\$6.00
B O Young Goat (BYG0)	\$6.50	\$5.00	-
B Young Goat (BYG1)	\$6.50	\$4.50	\$6.00
B 2nd Young Goat (BYG2)	\$4.30	\$2.50	\$6.00
A Crossbred Young Goat (AXBYG)	\$4.00	\$1.50	\$3.50
A O Adult (AH0)	\$8.00	\$5.50	-
A Adult (AH1)	\$8.00	\$4.50	\$6.00

continued over page

	1994 Average Pool Price	1993 Average Bin Price	1992 Average Bin Price
	\$NZ/kg	\$NZ/kg	\$NZ/kg
B O Adult (BH0)	\$6.50	\$4.00	-
B Adult (BH1)	\$6.00	\$4.00	\$5.50
A 2nd Adult (AH2)	\$7.00	\$3.80	\$5.00
Inferior (XXB3)	\$2.50	\$0.50	\$3.20
Stained Mohair (STN)	\$3.50	\$1.00	\$4.00
Heavily Stained Mohair (HSTN)	\$2.50	\$0.75	\$2.80
Cotted (COTT)	\$3.50	\$1.00	\$3.80
Coloured Mohair (COLMO)	\$2.00	-	\$1.20

(ii) Cashgora Sales (1994)

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

Note: All prices are per kg raw fibre.

Grade:	\$/kg
Cashgora A	\$19.00
Cashgora B	\$17.00
Cashgora D	\$12.00
GY/BR (coloured) Cashgora	\$10.00

(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.

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.

1992 Prices

	\$NZ/kg Fleece
WW1/WC1	\$60.00
WW2/WC2	\$35.00
GY1/GY2/BR1/BR2	\$20.00

Source: South Island Mohair Warehouse Co.Ltd

1.7.5 Goat Fibre Export Price Trends

Table of Fibre Export Prices 1989 to 1994: (year ended June)

	1990/91	1991/92	1992/93	1993/94 (E)
<i>Mohair (Fleece)</i> (per kg)	\$5.02	\$6.50	\$6.00	\$7.20
<i>Cashgora (Fleece)</i> (per kg)	\$6.95	\$3.00	\$6.50	\$10.00
<i>Cashmere (Down)</i> (per kg)	\$27.25	\$35.00	\$15.00	\$20.00

Note: Prices are average New Zealand FOB.

E = Estimate (as at June 1994)

Source: Department of Statistics, M.A.F.

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. The U.S.A. exotic animal demand for Boer goats has deflated dramatically although prices are still very variable.

Typical prices in December 1994 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	\$10000 to \$20000
	Kids	\$2000 to \$10000
- Boer Crossbreds	Adults	\$50 to \$250
	Kids	\$50 to \$200
Wethers (Angora)		\$20 to \$30
Bucks - Texan and Zim Angora Purebreds and Crossbreds		\$100 to \$1000
- Imported Boer purebreds (meat)		\$4000 to \$8000
- Boer Crossbreds		\$100 to \$500
- Cashmere and Cashgora		\$100 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 (31 January 1995):

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

CODE	A	B	C	D	E
	under 35	35.0-40.0	40.5-45.0	45.5-50.0	50.5-55.0
	kg	kg	kg	kg	kg
<i>Fat Measure</i>	cents	cents	cents	cents	cents
Z Under 6 mm	115	115	115	115	115
1 6 - 9	255	285	285	290	290
2 10 - 12	230	250	260	290	290
3 13 - 15	150	150	150	200	235
4 16 - 18	140	140	140	145	165
5 19 - 21	110	110	110	110	110
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	60.5-65.0	65.5-70.0	70.5-75.0	Over 75.0
	kg	kg	kg	kg	kg
<i>Fat Measure</i>	cents	cents	cents	cents	cents
Z Under 6	115	115	115	115	115
1 6 - 9	290	290	290	290	290
2 10 - 12	290	290	290	290	290
3 13 - 15	260	260	260	260	260
4 16 - 18	175	175	175	175	175
5 19 - 21	115	115	115	115	115
6 22 - 24	100	100	100	100	100
7 Over 24	100	100	100	100	100

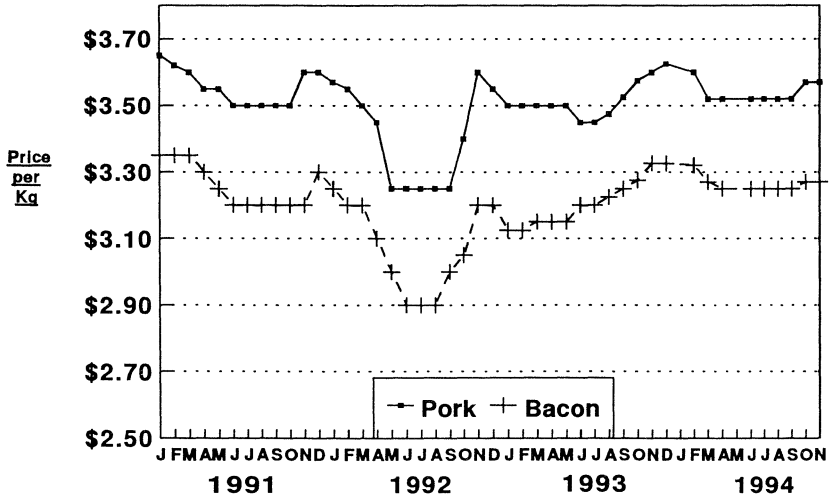
Over 80 kg (over 75 kg boars) Manufacturing Payment Applies (Chopper): 130c/kg (head off, skin on) .

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.

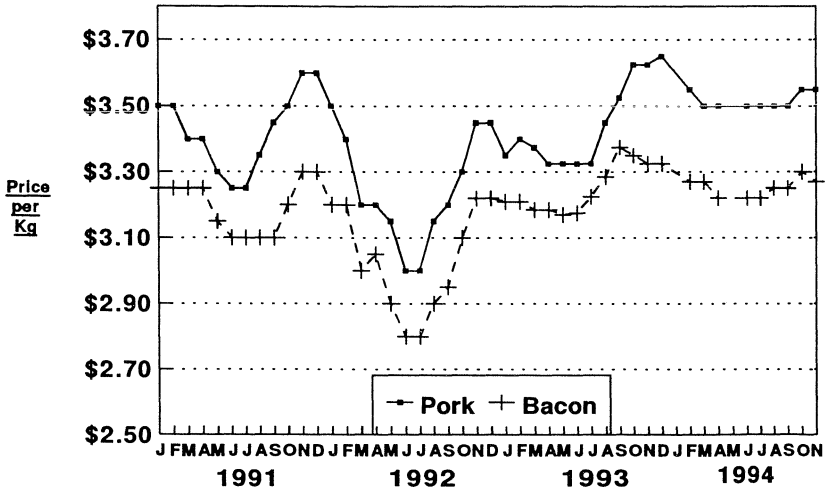
1.8.2 Average Pigmeat Returns 1991-1994

The following graphs show the average monthly return for pigs, on a per kg basis, sold in three regions from 1991 to 1994 (pork - under 45 kg; bacon - under 75 kg).

(i) Waikato

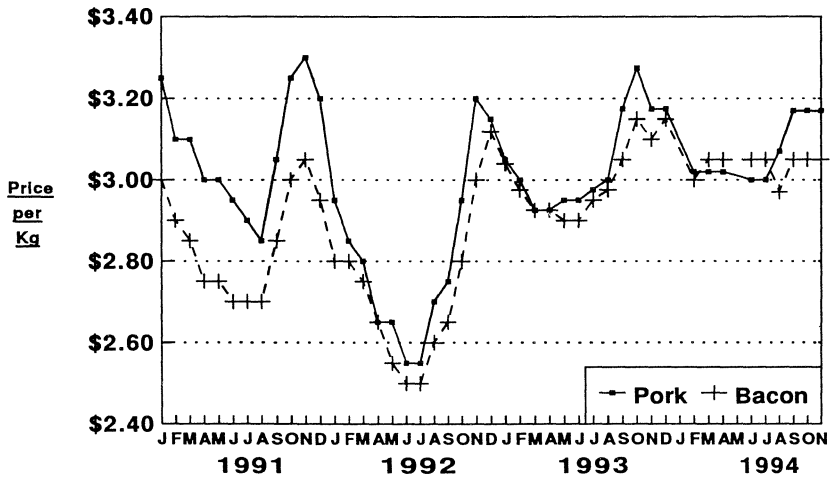


(ii) Manawatu



Source: Pork Industry Board

(iii) Canterbury



Source: Pork Industry Board

1.9 CROPS

1.9.1 Wheat

1994/95 Prices:

South Island

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

	\$ / tonne (for protein 11.7 to 11.9%)	Range depending on quality (protein)
Monad	\$305	(\$250 to \$335.50)
Otane	\$285	(\$250 to \$313.50)
Domino	\$285	(\$250 to \$313.50)
Batten	\$280	(\$245 to \$308.00)

Note: Storage Increment is plus 1% / month from 1 April 1995

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	\$323	(\$268 to \$355.30)
Otane	\$303	(\$268 to \$333.30)
Domino	\$303	(\$268 to \$333.30)
Batten	\$298	(\$263 to \$327.80)

Speciality biscuit wheat contracts *Defiance* mill

Farm Gate Price \$/tonne	Protein percentage
\$220	9.7 to 10.1%
\$235	10.2 to 10.6%
\$250	10.7 to 11.6%
\$235	11.7 to 12.1%
\$220	12.2%+

Note: Storage Increment is plus 1% per month from 1 April 1995

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

Sapphire Larnoch Bounty	Brock Jasper	Protein percentage
<u>\$/tonne</u>	<u>\$/tonne</u>	
\$235.75	\$250.80	7.6 to 8.0%
\$251.75	\$267.90	8.1 to 8.5%
\$267.90	\$285.00	8.6 to 9.5%
\$251.83	\$267.90	9.6 to 10.0%
\$235.75	\$250.80	10.1 to 10.5%

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

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

North Island contracts for milling wheat were \$315 to \$327 per tonne for 100 index quality depending on the mill and the delivery point. Feed wheat ranged from \$270 to \$275 per tonne.

Wheat grown for seed was attracting a \$20 per tonne premium for 1st generation and \$25 for basic.

Biscuit Wheat was \$290 per tonne for 100 index quality.

Note: General Information:

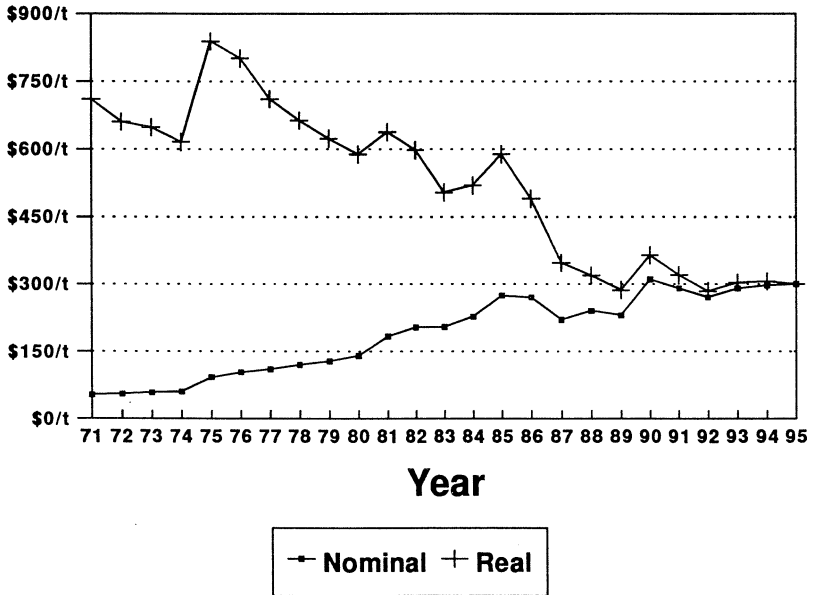
Advance payments are made in some contracts (a percentage at sowing, more at harvest, with a final payment in the following September) and storage increments are also paid by some companies.

Hodder and Tolley offer North and South Island growers a Chicago Board of Trade Option with international price fluctuation benefits. 1994 harvest returned a \$49 per tonne benefit over contract prices for South Island growers and a \$44 per tonne benefit for North Island growers.

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 1994 and are adjusted for inflation using C.P.I. figures, for each calendar year, as published by the Department of Statistics.



Source: Lincoln University

1.9.2 Barley

1994/95 Contract Prices:

Malting

The *Canterbury N.Z. Malting Company Ltd* contract price for No. 1 Grade Malting barley for the 1994/95 harvest was \$230 per tonne in the South Island (delivered Rakaia or Ashburton), and \$270 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 \$5.50 (South Island) or \$6.30 (North Island) per tonne for delivery during the month of May and a further \$1.70 (South Island) or \$1.95 (North Island) per tonne per month thereafter to December.

The Cropmark Malting pool for 1993/1994 realised \$205.00 per tonne.

Feed

South Island contracts ranged from \$190 to \$200 per tonne (1995 harvest).

North Island contracts ranged from \$225 to \$260 per tonne (1995 harvest).

Seed

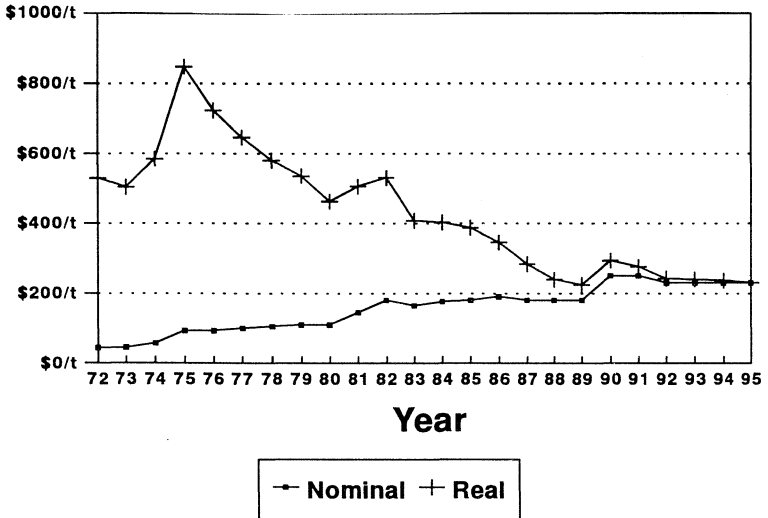
Contract price for seed barley in 1994/95 were \$20/tonne premium over feed for 1st generation and \$25 premium for basic.

Barley Price Trends 1970 to 1995

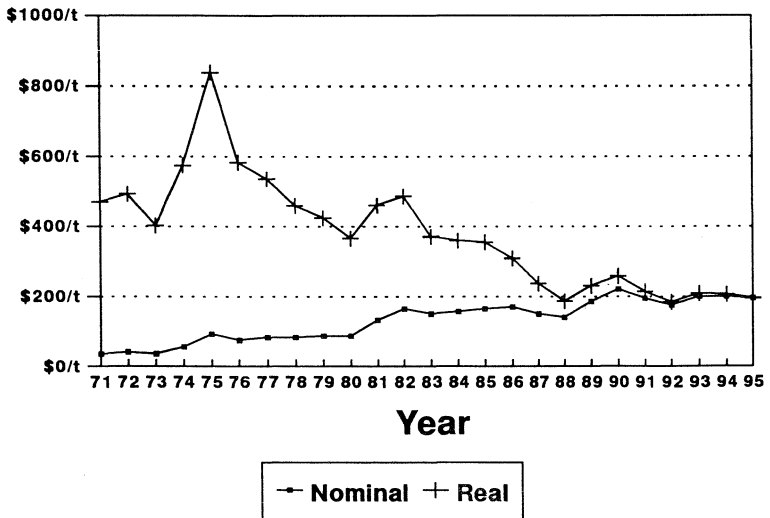
Source: Lincoln University

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 1994 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):



1.9.3 Oats / Oaten Hay

South Island contracts for 1994/95 averaged \$220 per tonne (Canterbury) and \$200 per tonne Southland. (Compared to 1993/94 - \$230/tonne, 1992/93 - \$215 to \$240 per tonne Canterbury).

Manawatu contract prices for 1994/95 were approximately \$245 - \$250 per tonne (\$10 to \$15 less than 1993/94 contracts).

1.9.4 Peas

The prices offered for peas in bulk grown under contract for the 1994/95 harvest were:

1. **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
 - \$500 for premium grade (<5% bleach),
 - \$480 for No.1 grade (5 to 10% bleach),
 - \$430 for Fair Average Quality (F.A.Q.) grade.(10 to 20% bleach)
 - \$400 for F.A.Q.grade (20 to 30% bleach)
 - \$350 for undergrade (30 to 60% bleach)
 - White Peas (subject to the same conditions as Maples)
 - 300 per tonne (F.D.) Canterbury
 - 280 per tonne (F.D.) Southland

2. **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: \$450 per tonne (F.D.)

3. Freezer peas

(i) *Canterbury - Wattie Frozen Foods Ltd.* for the 1994/95 harvest.

<i>Grade</i>	<i>Tenderometer Reading</i>	<i>\$ per tonne packed weight</i>
1	Not over 95	372.90
2	95 to 100	339.40
3	100 to 105	306.80
4	105 to 110	275.30
5	110 to 115	263.80
6	115 to 120	247.40
7	120 to 130	229.10

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. (1994/95 harvest):

Grade Reading	Tenderometer weight	\$ per tonne packed
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 1994/95 harvest were announced by a number of Companies in various regions:

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

Talleys Fisheries - \$320 per tonne (Blenheim) and \$320 (Nelson) - paid on packed weight.

Watties Frozen Foods (Manawatu) \$270 per tonne, paid on total field weight (unless extraneous vegetable or foreign matter exceeds 4%).

1.9.5 Maize / Maize Silage

Maize: Fixed Price Contracts for 1994/95 varied by region:

Gisborne - \$225 to \$260 per tonne;

Bay of Plenty - \$260 to \$275 per tonne;

Waikato - \$265 to \$275 per tonne;

Manawatu/Rangitikei - \$265 to \$280 per tonne;

Hawkes Bay - \$250 to \$260.

Gritting maize, Gisborne and Waikato only: \$300 per tonne.

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.

1.9.6 Ryecorn

South Island:

The price paid for ryecorn in the 1994/95 season was \$320 per tonne field dressed for 100 index points quality. (1993/94 price was \$220 to \$315 per tonne M.D.)

Manawatu: Contract price for the 1993/94 season averaged \$320 per tonne.

1.9.7 Lentils

No Contracts were set for the 1994/95 harvest.

1993/94 contract prices ranged from \$550 to \$600 per tonne.

1.9.8 Triticale

1994/1995 harvest 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.

1.9.9 Lupins

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

1.9.10 Oilseed Rape

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

1.9.11 Linseed

Bio Oils Ashburton Ltd. contract for linseed harvested in the 1993/94 season was \$385 per tonne (\$370 per tonne in 1992/93).

1.9.12 Evening Primrose

The 1994/95 market is weak due to oversupply.

Average price for evening primrose harvested in 1993/94 was \$3.00 per kg (subject to quality). The 1992/93 price was \$3.50 per kg.

1.10 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 1994/January 1995 (information from Canterbury and Manawatu sources).

1.10.1 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 (Vedette, Ellett, Yatsyn 1, Dobson and Impact) have a guaranteed minimum (as at 18 January 1995) for the 1994/95 harvest of \$1.35 for 99% minimum purity, 90% germination and 0.05% maximum weed content.

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

Public ryegrasses -

	\$/kg
Nui, Ruanui (limited quantities)	\$1.50
Manawa	\$1.20
Moata	\$1.20
Tama	\$1.00

Others:

	\$/kg
Matua Prairie Grass	\$1.10
Advance Fescue	\$3.00
Kahu Timothy	\$5.00
Melita and Massey Basyn (Yorkshire Fog)	\$3.30
Wana Cocksfoot	\$3.50
Maru Phalaris	\$5.00
Gala Brome	\$1.00
Kara Cocksfoot	\$3.20

1.10.2 Turf Species

	Canterbury
	\$/kg
Turf Ryegrasses 1995 harvest	\$1.30
Turf Fescues 1995 harvest	\$1.20
Browntop (all cultivars)	\$5.00
Yarrow	\$9.00

1.10.3 Legumes

\$/kg

Maku Lotus:

\$10.00 to \$15.00

White Clover:

Proprietary lines (multiplication contracts)	\$4.00
Huia	\$3.50
Aran	\$5.50
Prop	\$4.25
Sustain	\$4.50

Red Clover:

Pawera	\$7.00
Other cultivars	\$3.50 to \$5.00

Lucerne:

Wairau	\$4.00
Oranga	\$5.00
Otaio	\$7.50

1.10.4 Chicory

Puna	\$5.00
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1.10.5 Brassicas (Canterbury)

Rape (Rangi)	\$1.00
Kale	\$2.40
Turnips/Swedens	\$1.40

1.11 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.

1.11.1 Fruit Prices - Domestic Market

a) 1994 Fruit Prices - Auckland City Markets

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

	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	-	19.83	6.23	-	-	-	-	-	-	-	-
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

b) 1993 Fruit Prices - Auckland Wholesale Market

(N.B. 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

c) 1992 Fruit Prices - Auckland Wholesale Market

(N.B. all prices are \$ per case except strawberries, \$ per carton)

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Avocados	27	17	18	19	25	24	46	57	62	50	38	35
G/H Grapes	50	35	30	30	27	32	31	-	-	-	-	-
Kiwifruit	-	-	-	13	5	3	8	8	11	8	7	7
Lemons	30	29	18	16	13	8	6	7	9	10	12	15
Oranges	18	14	-	-	12	15	13	13	13	13	16	15
Peaches	12	12	-	-	-	-	-	-	-	-	-	-
Strawberries	15	24	17	29	-	-	-	53	30	24	18	16
Tamarillos	-	-	2	27	24	18	18	14	17	18	21	-
Mandarins	-	-	-	-	23	16	29	30	22	18	20	-

Source: "Horticultural News" 1992/93 issues

1.11.2 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	1994 Final \$/TCE	1993 Final \$/TCE	1992 Final \$/TCE
Braeburn	14.88	13.76	27.21
Coromandel Red	-	8.98	9.58
Cox's Orange Pippin	18.04	17.93	28.81
Democrat	9.64	4.08	7.82
Fiesta	15.25	17.24	18.04
Fuji	14.25	13.93	20.98

Variety	1994 Final \$/TCE	1993 Final \$/TCE	1992 Final \$/TCE
Gala	15.00	12.55	23.70
Golden Delicious	6.50	6.63	13.70
Granny Smith	8.10	4.64	9.76
Premier Red Delicious	-	4.86	8.96
Red Delicious	7.30	5.15	10.83
Red Dougherty	-	5.18	7.58
Regal	13.89	9.58	20.63
Regala	14.51	8.93	20.67
Royal Gala	17.30	17.07	26.22
Splendour	6.29	16.71	12.11
Sturmer Pippin	8.82	5.45	13.21

(ii) Advance Payment to Growers: 1994

The rates shown in the table (over page) include allowance for packing costs and are indicative advance prices only as at December 1994. Final prices will be established in February 1995.

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

- a. Estimating the Board's Capital Expenditure requirements for the next five years.
- b. Deducting its likely level of net borrowing and depreciation for that period.
- c. 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.

Assessed packing costs are \$2.55 per TCE (1994). This cost now varies between different packhouses.

**New Zealand Apple and Pear Marketing Board 1994 Indicative Advance Prices
(as at December 1994) \$ per T.C.E.**

	<u>COUNT</u>											
	<u>64</u>	<u>72</u>	<u>80</u>	<u>88</u>	<u>100</u>	<u>113</u>	<u>125</u>	<u>138</u>	<u>150</u>	<u>163</u>	<u>175</u>	<u>198</u>
<i>Braeburn</i>	3.84*	5.55*	7.26	8.53	9.39	8.53	7.26	7.26	5.55	4.27*	3.41*	3.41*
<i>Coromandel Red</i>	-	2.22	2.22	4.42	5.91	6.27	5.16	4.80	2.95	2.61*	2.00*	2.00*
<i>Cox's Orange</i>	-	-	-	5.28	9.90	13.21	13.21	11.89	7.92	4.62	3.08	2.05*
<i>Feista</i>	-	-	3.73	3.73	7.00	9.33	9.33	8.40	5.60	3.58	3.58	2.19*
<i>Fuji</i>	3.78	4.73	8.51	9.94	10.88	9.94	8.51	7.10	4.73	3.31	3.31	3.31
<i>Gala</i>	-	14.35	14.35	14.35	14.35	8.30	5.92	5.33	3.55	3.55	2.36	2.36*
<i>Golden Delicious</i>	-	-	1.00	3.37	4.21	4.21	2.80	1.69	1.00	0.00*	0.00*	-
<i>Granny Smith</i>	1.99	1.99	4.64	5.97	5.97	5.97	5.30	3.32	2.65	1.99*	1.99*	1.00*
<i>GS2085</i>	6.17	6.17	10.27	10.27	10.27	7.19	7.19	7.19	5.14	5.61	2.41	2.41
<i>GS330</i>	4.56	4.56	7.79	7.79	7.79	7.79	5.98	5.45	3.64	3.12	1.00	1.00
<i>Hillwell</i>	3.84*	5.55*	7.26	8.53	9.39	8.53	7.26	7.26	5.55	4.27*	3.41*	3.41*
<i>Lochbuie</i>	3.84*	5.55*	7.26	8.53	9.39	8.53	7.26	7.26	5.55	4.27*	3.41*	3.41*
<i>Regal</i>	-	5.71	5.71	5.71	5.71	5.71	5.71	5.71	5.71	4.08	2.86	1.00*
<i>Regala</i>	-	11.31	11.31	11.31	11.31	6.54	4.67	4.20	2.80	2.80	2.00	2.00*
<i>Royal Gala</i>	11.62	12.78	13.94	13.94	11.62	11.62	9.29	5.81	4.65	3.49	2.32	1.00*
<i>Sturmer Pippin</i>	-	-	2.48	2.48	4.96	4.96	4.96	3.10	2.48	2.48	-	-
	<u>64</u>	<u>70</u>	<u>80</u>	<u>90</u>	<u>100</u>	<u>113</u>	<u>125</u>	<u>138</u>	<u>150</u>	<u>163</u>	<u>175</u>	<u>198</u>
<i>Red Delicious</i>	-	2.00	3.00	4.00	5.00	5.00	5.00	4.00	3.00	2.00	2.00	2.00
<i>Red Dougherty</i>	-	-	-	-	5.00	5.00	5.00	4.00	3.00	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 1995 but 1994 payments were:

Processing/Standard/Reject

1. Fruit submitted ex Packhouses

Initial payment	4c per kg (\$40.00 per tonne)
Supplementary Payment	1c per kg (\$10.00 per tonne)
 Total Payment	 5c per kg (\$50.00 per tonne)

2. Orchard-run Fruit other than Gala

Initial payment	5.5c per kg (\$55.00 per tonne)
Supplementary Payment	1.25c per kg (\$12.50 per tonne)
 Total Payment	 6.75c per kg (\$67.50 per tonne)

3. Orchard-run Gala payment 7c per kg (\$70.00 per tonne)

Apples for Processing

J. Wattie Foods (Hastings) 1994/95 prices are: All grades - \$160 per tonne (average) (Range \$80 - \$200) same as 1993/94. 1992/93 price was \$210 per tonne.

1.11.3 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	1994 Final \$/TCE	1993 Final \$/TCE	1992 Final \$/TCE
Beurre Bosc	12.92	12.55	19.59
Beurre Easter	-	-	19.92
Doyenne Du Comice	26.54	29.79	-
Louise Bonne De Jersey	-	-	10.26
P. Barry	-	-	16.57
Packham's Triumph	8.65	6.35	14.65
Winter Cole	7.51	16.25	14.38
Winter Nelis	7.66	13.21	14.29

(ii) Advance Payment to Growers: 1994

The rates shown are indicative advance prices as at December 1994. They include allowance for packing costs and materials. Final prices will be established in February 1995.

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

The capital charge will be deducted from these advance payments.

**New Zealand Apple and Pear Marketing Board 1995 Indicative Advance Prices
(as at December 1994) \$ per T.C.E.**

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

	COUNT									
	16	20	24	28	32	36	40	44	48	50
<i>Doyenne Du Comice/</i>										
<i>Taylor's Gold</i>	7.25	7.25	7.25	7.25	7.81	7.81	7.25	7.25	7.25	7.25

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

Note: * Restricted Volume

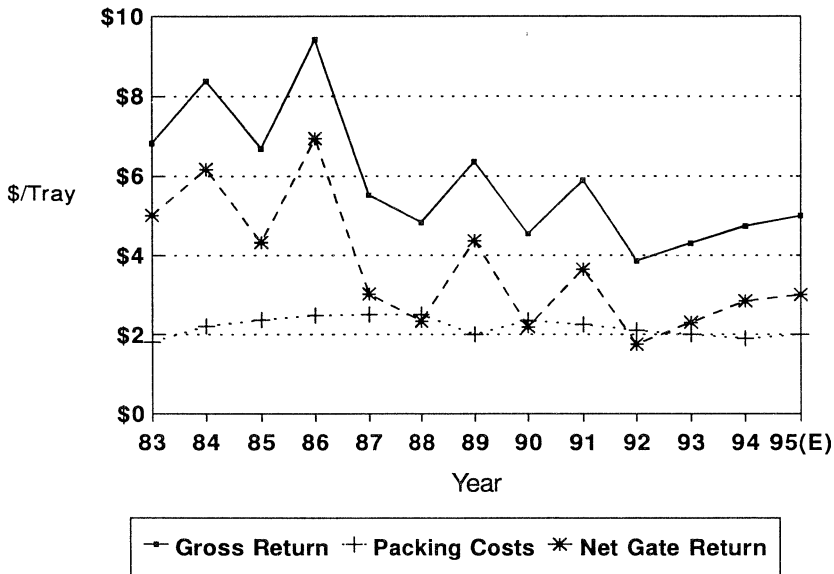
Process Pears

J. Wattie Foods (Hastings) 1994/95 payout for processing quality pears is \$375 per tonne for 1st grade (no second grade). Prices unchanged from 1993/94.

1992/93:	1st grade	\$350 per tonne
	2nd grade	\$158 per tonne

1.11.4 Kiwifruit

Export Returns to Grower 1983 to 1995



1995 figures are forecasts as at December 1994.

Note: * tray = 3.5 kg

Gross Return is Net of Levy

Net Gate Return is to Grower per Tray

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

	1992	1993	1994	1995 E
Gross Returns	\$3.85	\$4.30	\$4.74	\$5.00
Packing & Packaging	\$2.10	\$2.00	\$1.90	\$2.00
Orchard Gate Returns	\$1.75	\$2.30	\$2.84	\$3.00

E = Estimate

Source: Kiwifruit Marketing Board

Net Orchard Return Per Planted Hectare:

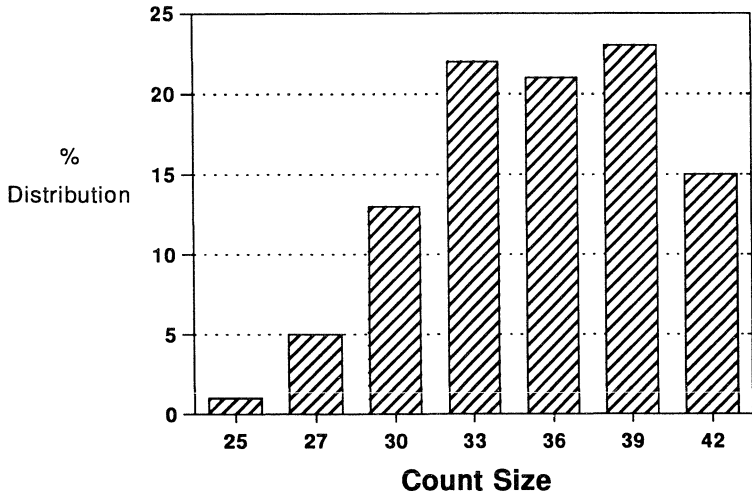
1986	1987	1988	1989	1990
\$12,985	\$8,952	\$7,532	\$13,191	\$10,034
1991	1992	1993	1994	
\$14,532	\$8,047	\$15,312	\$15,160	

Source: Kiwifruit Marketing Board

'Ideal' Production for 1995:

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 - 1995



Note: Essential points of the 1995 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 1995 crop and market realisations.

Source: Kiwifruit Marketing Board

Progress Payments for 1994:

The pattern of 1994 progress payments was as follows:

	Month	cents / tray
Harvest	April to June	72c
	July	19c
	August	21c
	October	18c
	November 1	25c
	November 2	30c
	December	50c
	January	30c
	February to June	Balance

Initial Payment for 1995

As at December 1994, 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 1995.

Source: Kiwifruit Marketing Board

Process Kiwifruit

Grower Foods Ltd. (Hastings) \$0.08 per kg 1994 delivered to the packhouse. Prices are predicted to be similar for 1995.

1.11.5 Stone Fruit

(See also *Section 1.11.1* for auction prices)

Process Stone Fruit:

Apricots: Price paid to growers for processing was \$0.90 per kg in 1993/4 but no contracts were available in 1994/95
(*Grower Foods Ltd.* - Hastings)

Plums: 1994/95 payout prices have increased from 1993/94

Desert (Black Doris and Omega)
\$1000 per tonne (Average) (\$700 1993/94, \$600 1992/93)

Jam (Billington and Sultan)
\$700 per tonne (\$700 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:

1994/95 payouts are:

1st grade	\$560 per tonne	(\$560 1993/94, \$555 1992/93)
2nd grade	\$350 per tonne	(\$350 1993/94 and 1992/93)

(J.Wattie Foods Ltd.)

Nectarines:

1994/95 payouts for all grades - \$650 per tonne (average) (\$650 1993/94.)
(J.Wattie Foods Ltd.)

1.11.6 Berryfruit

Processing 1994/95

J.Wattie Foods Ltd - Hastings:

Strawberries	\$2300 per tonne	(\$2300 1993/94)
Boysenberries	\$2300 per tonne	(\$2300 1993/94, \$2250 1992/93)
Raspberries	\$3300 per tonne	(\$3110 1993/94, \$3050 1992/93)

Grower Foods Ltd - Hastings:

Strawberries	\$2.50 per kg (fresh)	(\$2.45 1993/94, \$2.50 1992/93)
Boysenberries	\$2.30 per kg (fresh)	(\$2.30 1993/94, \$2.25 1992/93)
Blackberries	\$2.85 per kg (frozen)	(\$2.65 1993/94 and 1992/93)
Blueberries	\$2.90 per kg (frozen)	(\$3.00 1993/94, \$2.85 1992/93)

Note: Fresh prices delivered to factory.
Frozen prices delivered to cold store.

1.11.7 Feijoa

Domestic market

In January 1995 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

1.11.8 Grapes

(See *Section 1.11.1* for Auction prices)

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.

1994 Vintage Average Grape Price (\$ per tonne).

	Northland	Auckland	Waikato	Gisborne	Hawkes Bay	Wellington	Marlborough	Nelson	Canterbury	Varietal Average
<i>Muller Thurgau</i>	-	-	540.00	517.84	558.90	-	511.98	-	650.00	528.16
<i>Chardonnay:table</i>	1,300.00	1,301.35	1,485.06	1,456.78	1,565.02	2,106.44	1,499.14	1,566.05	1,211.11	1,494.33
<i>Chardonnay:sparkling</i>	-	-	-	1,601.01	1,676.96	-	1,524.76	-	-	1,554.74
<i>Sauvignon Blanc</i>	-	920.93	1,346.87	1,041.42	1,377.01	1,000.00	1,361.06	1,359.41	-	1,280.98
<i>Chenin Blanc</i>	-	-	722.35	625.30	792.31	-	653.72	-	-	719.59
<i>Gewurztraminer</i>	-	1,200.00	-	911.83	953.07	-	993.38	-	1,300.00	950.16
<i>Palomino</i>	-	497.02	-	485.84	549.81	-	-	-	-	515.13
<i>Riesling</i>	-	800.00	800.00	637.12	845.64	1,022.19	904.60	1,025.68	904.08	853.37
<i>Muscat Varieties</i>	-	-	-	535.63	594.68	-	-	-	-	550.41
<i>Semillon</i>	-	933.08	-	949.10	959.76	-	1,189.33	-	-	1,057.75
<i>Chasselas</i>	-	-	-	491.94	549.17	-	-	-	-	517.32
<i>Sylvaner</i>	-	-	-	534.39	634.63	-	545.35	-	-	590.31
<i>Reichensteiner</i>	-	-	-	503.09	-	-	-	-	-	503.09
<i>Other white varieties</i>	550.00	-	901.58	596.67	488.57	-	568.68	-	1,000.00	589.31
<i>Cabernet Sauvignon</i>	-	1,513.36	1,415.35	1,077.16	1,509.73	1,677.71	1,255.21	-	1,500.00	1,414.80
<i>Pinot Noir:table</i>	-	1,171.10	844.12	750.00	1,198.88	1,702.96	1,507.19	-	1,043.97	1,438.11
<i>Pinot Noir:sparkling</i>	-	1,000.00	-	874.28	1,001.29	2,000.00	1,125.26	-	-	1,016.27
<i>Pinotage</i>	-	1,109.28	-	876.45	-	-	966.76	-	-	922.03
<i>Merlot</i>	-	-	-	1,292.39	1,579.24	2,500.00	1,565.06	-	-	1,505.97
<i>Cabernet Franc</i>	-	1,255.71	-	1,265.35	1,678.35	-	1,432.58	-	-	1,515.28
<i>Other Black Varieties</i>	-	716.80	608.53	550.00	1,214.60	2,000.00	1,251.74	-	-	730.79
<i>All White Hybrids</i>	-	-	-	-	491.71	-	-	-	-	491.71
<i>All Black Hybrids</i>	-	700.00	-	-	503.43	-	690.00	-	-	532.98
Regional Average	838.46	818.60	1,003.39	726.39	931.47	1,575.10	1,012.57	1,285.98	913.75	866.65

Source: Wine Institute Of New Zealand

1.12 VEGETABLE PRODUCTION

1.12.1 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".

a) 1994 Vegetable Prices - Auckland Wholesale Market

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

	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

"The above figures 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."

Source: "Horticulture News" January 1995

b) 1993 Vegetable Prices - Auckland Wholesale Market

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

	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" 1992 issues

c) 1992 Vegetable Prices - Auckland Wholesale Market

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

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Buttercup	12.2	3.40	3.30	3.90	-	6.85	10.85	13.90	-	-	13.50	-
Cabbage	3.45	3.45	3.65	5.55	4.65	7.30	8.65	9.70	10.55	8.40	3.30	2.55
Carrots	6.35	4.80	5.10	5.70	5.55	8.05	6.20	10.70	8.45	13.95	11.35	10.45
Cauliflower	8.90	6.55	4.70	4.55	3.70	3.85	5.10	8.40	7.55	6.80	-	-
Celery	5.85	5.75	6.45	7.00	7.35	10.00	9.50	12.20	9.80	10.15	14.50	17.45
Kumara	34.40	27.95	15.15	18.55	16.80	22.05	19.65	17.90	18.60	19.10	20.60	18.60
Lettuce	4.80	6.45	17.80	8.45	9.90	13.20	17.85	17.85	21.60	7.65	5.30	6.35
Onions	7.00	5.15	4.25	3.80	4.10	3.80	3.80	3.80	4.00	5.05	7.05	7.55
Potatoes	7.25	6.65	6.00	6.05	5.65	5.35	7.40	6.45	6.10	7.20	7.05	8.85
Pumpkin	15.95	10.60	5.60	5.50	5.75	5.30	4.20	5.40	6.50	9.75	9.40	10.40
Silverbeet	5.95	6.15	5.65	8.75	6.95	-	11.50	10.85	14.30	9.00	-	13.10
Tomatoes	8.45	6.15	10.10	9.60	11.65	12.05	18.05	21.00	18.35	18.45	14.05	10.25

Source: "Horticulture News" 1991 issues

1.12.2 Vegetable Prices (Process)

Asparagus

- (i) 1994/95 harvest price for Hawkes Bay (*J.Wattie Foods*):
- | | | |
|-----------|------------------|----------------------------------|
| 1st grade | \$2400 per tonne | (\$2400 1993/94, \$2200 1992/93) |
| 2nd grade | \$1600 per tonne | (\$1600 1993/94, \$1000 1992/93) |
- (ii) 1994/95 harvest prices for Hawkes Bay (*Grower Foods Ltd.*)
- | | | |
|--------------|---------------|----------------------------------|
| First Grade | \$2.40 per kg | (\$2.42 1993/94, \$2.20 1992/93) |
| Second Grade | \$1.65 per kg | (\$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 *		
		1994/95	1993/94	1992/93
1	Less than 9mm	360	360	340
2	over 9mm, not over 9.5mm	347	347	327
3	over 9.5mm, not over 10mm	336	336	317
4	over 10mm, not over 10.5mm	326	326	308
5	over 10.5mm, not over 11mm	318	318	300
6	over 11mm, not over 11.5mm	310	310	292
7	over 11.5mm, not over 12mm	303	303	286
8	over 12mm, not over 12.5mm	298	298	281
9	over 12.5mm, not over 13mm	295	295	278
10	over 13mm	293	293	276

* Note that 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 1994/95 (*Growers Foods Ltd*):

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 *		
		1994/95	1993/94	1992/93
1	less than 7.5mm	526	526	598
2	over 7.5mm not over 8mm	509	509	578
3	over 8mm, not over 8.5mm	491	491	558
4	over 8.5mm, not over 9mm	473	473	538
5	over 9mm, not over 9.5mm	456	456	518
6	over 9.5mm, not over 10mm	438	438	498
7	over 10mm	422	422	479

* Note that payment is based on weight after processing and freezing or in fresh green state before the dehydration process.

- (iii) Broad Beans - Canterbury 1994/95 (*Watties Frozen Foods Ltd*)
\$476 per tonne for grey or green seeded varieties based on weight after processing and freezing. (Previous season's price - \$425 per tonne.)
- (iv) Navy Beans \$1100 per tonne for Hastings in 1994/95 (*J.Wattie Foods Ltd.*)
- (v) Italian Beans \$307 per tonne packed weight for 1994/95 in Canterbury (*J.Wattie Foods Ltd.*). Prices remain unchanged from 1993/94.

Beetroot

1994/95 delivered to the factory price:

\$140 per tonne in Hastings (*J.Wattie Foods Ltd.*) (\$140 1993/94, \$148 1992/93).

\$125 per tonne (*Grower Foods Ltd.*) (Prices remain unchanged from 1993/94).

Broccoli

1994/95 price for broccoli (Manawatu) is \$800 per tonne (\$800 1993/94, \$700 1992/93).

Carrots

1994/95 prices (\$ per tonne)

Manawatu \$89.00 per tonne

Canterbury (*Watties Frozen Foods Ltd*)

\$87.50 per tonne (grower supplied bins) and \$81.00 (purchaser supplied bins) for dicing, julienne or shoestring carrots.

\$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): \$100

grade 2 (more than 500gms): \$90

(*J. Wattie Foods Ltd*)

Dicing: \$95 per tonne

N.B. For auction prices see *Section 1.12.1*

Cauliflower

Cauliflower grown for process freezing in 1994/95 is \$490 per tonne field weight (Manawatu). (\$450 1993/94, \$390 1992/93).

N.B. For auction prices see *Section 1.12.1*

Celery

\$450 per tonne Hastings - 1994/95 (*J. Wattie Foods Ltd.*)

N.B. For auction prices see *Section 1.12.1*

Garlic

The price varies tremendously throughout the season, depending on the demand and market. 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).

Peas

See *Section 1.9.4*

Peppers

\$700 per tonne Hastings - 1994/95 (*J. Wattie Foods Ltd.*)

(\$650 1993/94, \$860 1992/93)

Potatoes

(For market prices see *Sections 1.12.1 and 1.12.3*)

Canterbury:

Wattie Frozen Foods (Contracts are not completed for the 1994/95 season)

1993/94 price per tonne by specific gravity:

Specific Gravity	\$ per tonne	Specific Gravity	\$ per tonne
1.078	\$138.50	1.084	\$147.50
1.079	\$140.00	1.085	\$149.00
1.080	\$141.50	1.086	\$150.50
1.081	\$143.00	1.087	\$152.00
1.082	\$144.50	1.088	\$153.50
1.083	\$146.00	1.089	\$155.00

Potatoes of specific gravity less than 1.078 by arrangement only.

A size incentive of \$5.00 per tonne is payable where 5% or less of the tubers (by weight) are less than 65mm at the smallest dimension. There is also a defect incentive of \$5.00 per tonne, payable where total defects are less than 1% by weight.

A charge of \$7.00 per bin is made for the use of purchaser owned bins.

McCains Foods (NZ) Ltd

Contract prices of 200 per tonne for chip quality and \$150 per tonne for processing

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

Pumpkin

\$100 per tonne in Hastings for 1994/95 (*J.Wattie Foods Ltd.*)

(\$150 per tonne 1993/94)

(N.B. For auction prices see *Section 1.12.1*)

Sweet Corn (1994/95)

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

\$125.00 per tonne Manawatu

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

\$140 per tonne Hawkes Bay (*Grower Foods Ltd.*)

Note: Price includes harvesting and delivery to the factory.

Tomatoes (1994/95)

\$140 per tonne delivered Hastings (*J.Wattie Foods Ltd*)

(\$147 1993/94, \$137 1992/93)

\$120 per tonne net to grower (Processor pays for harvest and freight equivalent to \$37.50 per tonne) Hastings (*Growers Foods Ltd*) - (\$115 per tonne 1993/94)

(N.B. For auction prices see *Section 1.12.1*)

Zucchini:

\$525 to \$650 per tonne (Manawatu) for 1994/95 which is the same price range as 1993/94 (\$525 in 1992/93).

1.12.3 Main Crop Potatoes

In the 1994/95 growing season all potato growing areas were affected by adverse weather conditions, particularly drought. Some areas have been affected by floods as well. 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 year.

Auckland:

Prices of \$16 per 20 kg bag of ungraded potatoes have been reported.

Manawatu:

1995 \$250 to \$300 per tonne has been quoted, with prices likely to be significantly higher due to supply shortages.

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

Canterbury:

As at January 1995:

Export prices ranged from \$500 to \$550 per tonne.

Gourmet prices \$500 to \$750 per tonne.

Ungraded table potatoes \$9 per 20 kg bag

Graded table potatoes \$11 per 20 kg bag

Some table potatoes have been sold for \$900 per tonne.

A possibility is that seed growers will grow on and sell their product as table potatoes, resulting in seed shortages for 1995/96.

Southland:

Southland prices are similar to Canterbury, with any major differences being due to freight charges. Main crop potatoes for in the 1994/95 season are expected to sell for \$500 per tonne but some have been sold for \$800 per tonne.

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

There are 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 with 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.

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 1994/95 or 1993/94 season.

Auction Prices - Auckland (United Flower Auctions Ltd):

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
Alstroemeria (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	4.77-5.49	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

Source: "Horticulture News" 1993 issues

1992 Prices:

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

	May/June	June/July	July/Aug	Aug/Sept	Sept/Oct	Oct/Nov	Nov/Dec	Dec/Jan
Carnations:								
- Spray (per 10)	3.47-6.97	5.80-6.58	3.37-5.20	3.16-4.52	2.97-3.52	1.81-2.85	1.78-2.69	1.29-2.89
- Standard (per 10)	5.79-6.53	6.41-7.45	4.24-5.39	4.22-5.13	3.73-4.79	2.46-3.52	1.54-2.83	1.23-3.46
Chrysanthemums (per 5)	5.78-7.66	3.50-8.13	4.23-7.47	4.94-8.64	4.13-8.14	2.66-3.90	3.73-4.62	3.81-4.53
Rose (per 10)	6.80-9.22	6.40-11.21	6.82-12.61	8.93-13.76	7.19-12.40	2.42-7.38	3.42-6.21	2.85-5.43
Agapanthus (per 5)	-	-	-	2.87	-	-	2.47	-
Alstromeria (per 5)	4.61-4.72	5.32	5.03	4.13	2.74	1.78	2.03	1.95
Anemone (per 10)		1.98	1.78	1.46	1.67	0.94	-	-
Anthurium (per stem)	2.49	-	-	-	-	-	-	-
Bouvardia (per 5)	4.82	-	-	-	-	-	-	-
Cymbidium								
- mini (per stem)	-	-	-	2.34	-	-	-	-
- standard (per bloom)	-	-	-	0.26	-	-	-	-
Daffodil (per 10)		1.55-2.50	0.91-1.26	1.43-1.97	1.03	1.06	-	-
Delphinium (per bunch)	-	-	-	-	-	4.65	1.98-2.38	0.52-0.59
Freesia (per 10)	5.67	4.48	2.43-3.57	2.56-3.03	3.14-3.57	1.37-2.02	-	-
Gerbera (per 5)	-	-	-	3.07	2.54	1.26	1.98	1.79
Gypsophila (per bunch)	8.63-8.92	9.27	8.21-8.46	7.89-8.36	7.68	4.23	-	-
Iris (per 5)	4.07	5.09-5.78	4.41-4.57	2.95-3.57	2.68-3.29	1.76-3.53	1.59-2.69	-
Larkspur (per bunch)	-	-	-	-	-	1.87	-	-
Lily (per 5)	4.76-7.15	5.14-6.61	4.97-5.46	4.05-5.97	3.86-4.80	2.37-4.45	2.89-4.70	2.21-4.45
Ranuncula (per bunch)	-	-	-	3.42	-	-	-	-
Snap Dragon (per 5)	5.95	5.89	4.17	3.59	3.26	1.57	1.93	1.89
Statice sin.(bunch)	4.70-5.59	5.57	-	-	-	-	-	1.59-1.79
Stock Double (per 5)	-	6.65-7.44	4.69-5.36	3.70-5.38	2.68-5.36	2.40-3.21	-	-
Tulip (per 5)	-	3.45-5.11	4.69	3.98	2.68	1.05	-	-

Source: "Horticulture News" 1992 issues

1.14 LOGS

The following information has been kindly provided by Ministry of Forestry Advisors. The prices and rates shown are those current at January 1995, 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.

1.14.1 Market Outlook

The outlook for 1995 appears to be for stable prices, perhaps with a potential for a slight increase. However it should be stated that domestic prices are influenced by export prices for logs and lumber - and it is difficult to forecast accurately short term movements in the international market.

The Ministry of Forestry's October 1994 forecasts of production and export of forestry products provide an outlook to March 1998. The most notable feature is the strength of the domestic market and it's expected potential to absorb sawn timber, wood pulp and paperboard. Production of most wood products continues to increase, with exceptional growth in fibreboard and plywood production as a result of the new mills coming on-stream. A modest increase in sawn timber production is expected over the forecast horizon. Log export prices and volumes are expected to stay reasonably constant while pulp and paper prices are the major drivers of export revenue increases for these products.

The income effects of a stronger New Zealand dollar are expected to offset any increase in total export earnings during the year to March 1995 (to total NZ\$2,536 million) when compared with the previous year which recorded NZ\$2,559 million. Strong export growth should resume in the March 1996 year with expected foreign exchange earnings totalling NZ\$2,803 million. Export earnings in the March 1998 year are expected to easily exceed NZ\$3 billion.

For further information, please contact M.O.F. Chris Brown, Senior Analyst International Policy, PO Box 1610, Wellington, Tel:(04) 472-2314

1.14.2 Export Log Prices

December Quarter 1994

Grade	\$NZ per JAS (f.o.b)
Pruned - Japan, Korea	\$226 to \$250
Unpruned A - Japan	\$115 to \$134
Unpruned K - Korea	\$87 to \$97
Unpruned J - Japan	\$94 to \$105
Pulp - Japan	\$50

Source: Ministry of Forestry, 1994

**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

1.14.3 Domestic Log Prices

December Quarter 1994

Grade	\$NZ per tonne delivered
P1	\$160 to \$213
P2	\$115 to \$160
S1	\$98 to \$125
S2	\$80
L1 and L2	\$63 to \$76
S3 and L3	\$58 to \$80
Run of bush	\$62 to \$98
Pulp	\$40 to \$45

Source: Ministry of Forestry, 1994

1.14.4 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:

<i>Log Grade</i>	<i>Minimum Small end diameter (mm)</i>	<i>Average Small end diameter (mm)</i>	<i>Maximum Long end diameter (mm)</i>	<i>Maximum Knot (mm)</i>	<i>Length (m)</i>	<i>Percentage allowed</i>	<i>Sweep</i>
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
				6.0,8.0	Shipper's option	1/4 s.e.d	
Japan H peelers	200	unrestricted	500	80	4.0,6.0,8.0	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.

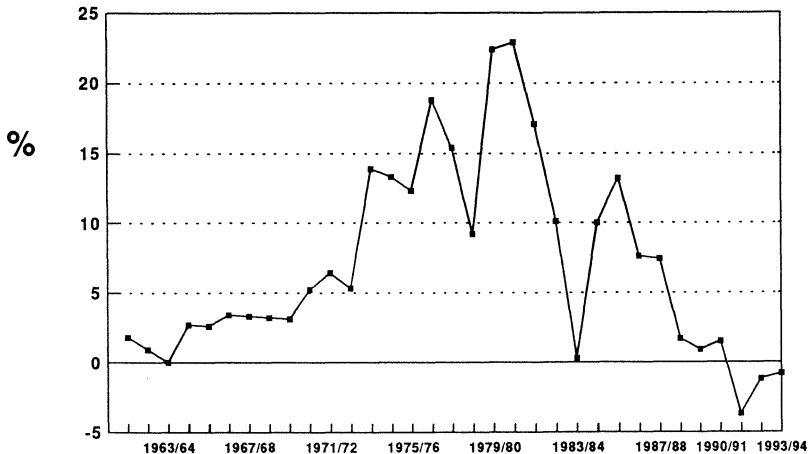
SECTION 2

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 1993/94



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

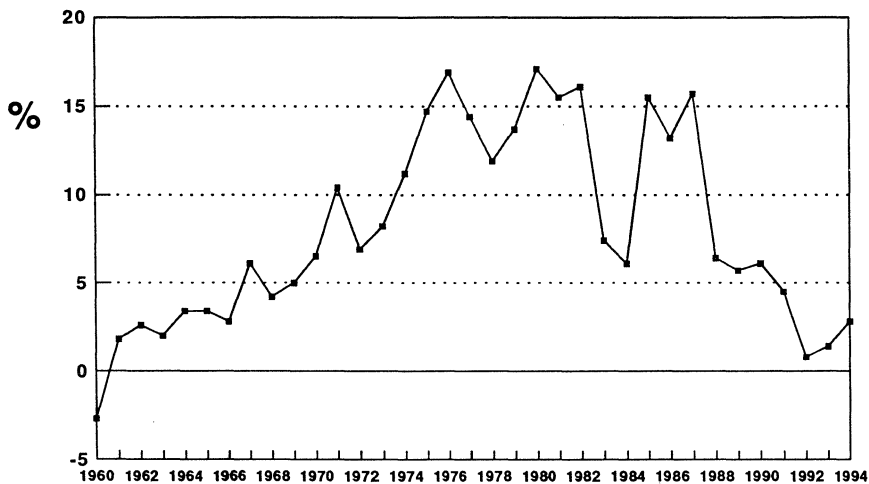
2.1.2 Price Discounts

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 10% to 25% for many farm goods excluding some items such as common agricultural chemicals. Usually a one-off membership fee is required to join a trading society; one South Island society charges \$580 per member which is refundable when membership ceases.

2.1.3 Rate of Inflation in New Zealand 1960 to 1994

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

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.



Source: Reserve Bank

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 - \$12,000 to \$18,000, "fully found" *

Married Person (limited experience) - \$22,000 to \$25,000
(plus spouse's casual labour at \$8 to \$10 per hour)

Manager (up to 180 cows) - \$25,000 to \$30,000

Manager (with staff supervision) - \$30,000 to \$50,000

Management Position - Married couple with spouse milking until Christmas
(220 to 250 cows) - \$35,000 to \$40,000
- or with spouse working full-time on farm
- \$40,000 to \$55,000

Contracts:

A common contract includes \$1 per kg milkfat and paying some shed expenses. These conditions vary a lot.

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 - \$12,000 to \$18,000, "fully found" *
(Southland: \$15,000 to \$20,000 "fully found" *)

Married Shepherd - \$20,000 to \$25,500
(Southland: \$22,000 to \$25,000)

Stock Manager - \$25,000 to \$30,000
(Southland: \$26,000 to \$32,000)

Manager - \$25,000 to \$40,000
(Southland: \$30,000 to \$40,000 plus)

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

2.2.2 Wage and Salaries - Horticultural Employees

Some typical wage rates are as follows:

Note: Add 6% for holiday pay.

Orchard Workers (Canterbury)

Permanent Staff:

Under 19 years	\$7.26 per hour
Adult (depending on experience)	\$8.04 to \$8.52 per hour
Adult Supervisor/Leading Hand	\$9.77 per hour
Foreman	\$11.18 per hour
Assistant Foreman	\$10.56 per hour
Assistant Managers/Managers (incl.hol.pay)	\$26,000 to \$33,000 per year

Casual Staff:

Casual- depending on experience	\$7.54 to \$7.83 per hour
Casual- Quality assurance	\$8.36 per hour
Casual Supervisor	\$9.22 to \$9.52 per hour

Orchard/Packhouse Workers (Auckland)

Casual (unskilled)	\$7.17 per hour
Casual (some experience)	\$7.74 per hour
Casual - Foreman	\$8.50 to \$9.00 per hour
Tractor Drivers	\$9.00 to \$10.38 per hour

Starting wage/16 year old Cadet \$6.00 per hour

Tomato Glasshouse Workers (Canterbury)

Casual Youth (depending on age/experience)	\$5.50 to \$7.50 per hour
Casual Adult	\$7.50 to \$10.50 per hour
Permanent adult	\$9.50 to \$11.00 per hour

Market Garden (Hastings)

Adult casual inexperienced	\$7.50 per hour
Adult casual experienced	\$8.00 to \$8.50 per hour
Permanent experienced	\$10.00 to \$11.00 per hour

Market Garden (Hastings)

Adult Casual/Experienced	about \$8.00 per hour
Casual Supervisor	\$9.50 to \$10.00 per hour
Permanent, experienced adult	\$9.50 to \$11.00 per hour

Contract Field Workers: (Bay of Plenty)

Currently, experienced workers employed on contract (orchard work -spray/prune/thin/pick, etc.) are earning 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:

	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

F.E.T.A. (Farm Education and Training Association of N.Z.) 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).

- a. The minimum adult wage as set by Government legislation increases from \$6.125 per hour to \$6.25 from 22nd March 1995. The minimum wage for those aged 16 to 20 years increases on the same date from \$3.65 to \$3.75 per hour.

b. In formulating wages and salary packages for farm cadets, training and experience are taken into account. For example:

second year Cadet	basic wage plus 10%
third year Cadet	basic wage plus 15%
20 years plus (holds National Certificate in Farm Business Management)	basic wage plus 25%

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 FETA 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 typically ranges from \$22,000 to \$30,000 per annum, depending on circumstances.

Source: MAF Farm Monitoring Report, December 1994.

2.3 ANIMAL EXPENSES

2.3.1 Animal Health - Average Costs

(See also *Section 2.3.13* for mineral supplements, licks etc.)

Dairy Cows

Total animal health costs can range from \$30 to \$50 per cow per year (average \$40) depending on the farm locality, herd size etc.

See individual items in this section for accurate budgeting.

Sheep and Cattle

Total animal health costs typically range from \$1.50 to \$2.00 per stock unit per year (average \$1.60) depending on the farm, season etc.

See individual items in this section for accurate budgeting.

Deer

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

Source: MAF Farm Monitoring Report 1994

2.3.2 Drenches/Vaccines/Bloat Control

Drenches/Anthelmintics

Sheep Drenching Costs - Examples:

Tradename:	<i>Nilverm</i>	<i>Panacur</i>	<i>Cydectin</i>	<i>Ivomec</i>
Dose rate:	All 1 ml per 5 kg live weight, except Ivomec, 1 ml per 4 kg			
Cost per ml:	0.62 cents	0.81 cents	3.0 cents	2.4 cents
Cost per 50 kg ewe:	6.2 cents	8.1 cents	30 cents	30 cents

Cattle Drenching Costs - Examples:

Tradename:	<i>Nilverm</i>	<i>Panacur</i>	<i>Cydectin</i>	<i>Ivomec</i>
			<i>(Injection)</i>	<i>(Injection)</i>
Dose rate:	1 ml/5 kg	1 ml/5 kg	1 ml/50 kg	1 ml/50 kg
Cost per ml:	0.62 cents	0.81 cents	63 cents	63 cents
Cost per 150 kg calf:	19 cents	24 cents	\$1.90	\$1.90

<u>Product</u>	<u>Dose Rate</u>	<u>Unit Size</u>	<u>Retail Price</u>
<i>Pitman-Moore:</i>			
Challenge Levamisole	1ml per 5kg	20 litre	\$93
Nilverm Oral	1ml per 5kg	20 litre	\$118
Nilverm Min (plus Sel)	1ml per 5kg	20 litre	\$135
Panacur Min (plus Sel)	1ml per 5kg	20 litre	\$162
Systemex (sheep)	1ml per 5kg	20 litre	\$231
Systemex Min (plus Sel)	-	20 litre	\$207
Systemex Low Dose Cattle Drench	1ml per 20kg	2.5 litre	\$138

<u>Product</u>	<u>Dose Rate</u>	<u>Unit Size</u>	<u>Retail Price</u>
<i>MSD Agvet:</i>			
Ivomec Liquid (sheep)	1ml per 4kg	20 litres	\$480
Ivomec Injection (cattle)	1ml per 50kg	500 ml	\$313
Ivomec Plus Injection (cattle)	1ml per 50kg	500 ml	\$313
Ivomec Injection (pigs)	1ml per 33kg	100 ml	\$80
Ivomec Pour On (cattle)	1ml per 10kg	2.5 litres	\$312
Eqvalan Paste (horses)	1syr. per 600kg	1 syringe	\$16.90
<i>Cyanamid:</i>			
Cydectin	1ml per 5kg	15 litre	\$458
Cydectin Injection (cattle)	1ml per 50kg	500 ml	\$316
<i>Ancare:</i>			
Levicare	1ml per 5kg	30 litres	\$160
Levicare HI-MIN	1ml per 5kg	30 litres	\$180
Levitape	-	5 litres	\$174
Lypor	6ml per 100kg	1 litres	\$78
Fenben HI-MIN	1ml per 5kg (sheep) 15ml per 50kg (cattle)	30 litres	\$241
<i>Young's Animal Health (NZ) Ltd:</i>			
Rycoben Cattle and Deer drench	1ml per 20kg	5 litres	\$250
Rycoben Sheep and Lamb	1ml per 5kg	20 litres	\$185
Rycozole (Levamisole) Mineralised	1ml per 5kg	20 litres	\$106
Rycotape		10 litres	\$335
Laviben		20 litres	\$265
<i>Pfizer: Exhelm E</i>			
	1ml per 4kg	20 litres	\$404
<i>Rhone Mérieux: (1994 prices)</i>			
Trodax (flukicide)	0.25ml per kg (sheep) 1.5ml per 50kg (cattle)	250 ml	\$54
<i>Smith Kline Beecham:</i>			
Valbazen Min plus Sel	1ml per 5kg	20 litre	\$217
<i>Agmax Industries Ltd:</i>			
Agmax Gold	-	20 litre	\$129

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>
<i>Pitman-Moore:</i>			
Nilvax S (PK, Bl, MO, Tet, BD)	1ml per 10kg	500 ml	\$33.78
Nilvax S (PK, Bl, MO, Tet, BD)	-	2000 dose	\$524
Multine 5 in 1	-	500 ml	\$28.53
PK	-	500 ml	\$35.55
Lamb vaccines	-	500 ml	\$40.89
Footvax		100 dose	\$47.09

Young's Animal Health (NZ) Ltd:

RYVAC PK	2ml per dose	500 ml	\$14.70
RYVAC 5	2ml per dose	500 ml	\$28.75

Rhone Mérieux:

Ibepur (IBR)(1994 price)	2ml per dose	50 ml	\$55.00
Mucobovin (BVD)	2ml per dose	100 ml	\$150.00
Neoparasec (JD)	1ml per dose (lambs)	50 ml	\$41.50
	2ml per dose (calves)	250 ml	\$206.50

Bloat Control

<u>Product</u>	<u>Unit Size</u>	<u>Price</u>
<i>Nu Farm:</i>		
Bloataid Dual	100 litre	\$575
Bloataid Super	100 litre	\$667
Bloataid Traces	100 litre	\$719
<i>Klenzade:</i>		
Bloatenz Two in One	200 litre	\$828
Bloatenz plus	200 litre	\$977
<i>Ancare:</i>		
Blocare 4511	200 litre	\$868
<i>Agmax Industries:</i>		
Anti-Bloat	200 litres	\$644
Anti-Bloat plus	200 litres	\$751

2.3.3 Dips/Sprays/Ointments/Dressings

(see also contract dipping costs, *Section 2.4.4.*)

<u>Product</u>	<u>Dose Rate</u>	<u>Unit Size</u>	<u>Price</u>
<i>Pitman-Moore:</i>			
Grenade	-	20 litre	\$715
Trigon DFF	-	5 litre	\$265
Supreme DFF	-	5 litre	\$404
Warbex	5ml per 50kg BW	5 litre	\$273
Wipe-out	2mg per kg BW	10 litre	\$222
Zenith	-	5 litre	\$564
Stampede	10ml per 100kg BW	5 litre	\$294

Young's Animal Health NZ Ltd:

	5 Litres	10 Litres	20 Litres
Sheep Dips -			
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	-	-

Nu Farm:

	<u>Unit Size</u>	<u>Price</u>
Diazinon 40	10 litre	\$193
Zinc Sulphate (Footrot)	25 kg	\$30.00

Bomac Laboratories:

Copper sulphate ointment (feet)	500 g	\$13.09
Eczema cream	500 g	\$12.25
Padaid Paint-foot problems in dogs	120 ml	\$8.66
Vetadine Iodine Animal Wash	2 litre	\$34.87
Zinc Cream-treats skin diseases	750 g	\$14.74

FIL:

Formalin -	200 litre	\$310
	20 litre	\$38.20
Flystrike Dressing - Powder	4 kg	\$35.33
	350 g	\$6.63
- Aerosol Spray	300 ml	\$7.73

Ciba Geigy:

Vetrazin	10 litre	\$747
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Ancare:

Xterminate	20 litre	\$375
Flypel	5 litre	\$200

Disinfectants

Pitman-Moore

Savlon	5 litre	\$28.20
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2.3.4 Metabolics/Antibiotics

(See also *Section 2.3.13* for mineral supplements, licks etc.)

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<i>Bomac Laboratories:</i>		
Calcium Borogloconate 25% (Milk Fever)	500 ml	\$8.88
37% (Milk Fever)	500 ml	\$10.90
Glucalmag - milk fever complicated by grass staggers	500 ml	\$9.65
Glucalmax - milk fever complicated by acetonæmia or grass staggers	500 ml	\$10.30
Glucalphos - milk fever complicated by acetonæmia or grass staggers and sleepy sickness in sheep	500 ml	\$12.24
Ketol - ketosis in cattle and sleepy sickness in sheep and goats	5 litre	\$44.76
Magnesium Sulphate 20%	500 ml	\$7.14
Scour Powder (calves and cows)	500 g	\$9.41
<i>Agmax Industries Ltd:</i>		
Kemax Tonic (Ketosis)	20 litres	\$129.00

Magnesium Treatment

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

<i>Product</i>	<i>Mg</i>	<i>Weight (g/10g of Mg)</i>	<i>Costs (¢/10g Mg)</i>
Calmag (Mg oxide)	55%	18	1
Australian Mg oxide	55%	18	2
Magnesium Chloride	12%	85	1
Magnesium Sulphate	10%	100	10
Multimag	10%	100	51
Himag	1.75%	571	46

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.

Source: *Dairy Exporter*, April 1993.

Selenium Treatment

Costs per Cow (for season):

Selenium prills at 1 kg per ha	\$0.70	} to give equivalent periods of cover (approximately 7 to 12 months)
Selenium bolus (Permasel)	\$4.26	
Selenium injection (Deposel)	\$3.55	
Selenium injection (Se-Hypo)	\$1.60	
Selenium drenched daily	\$1.00	

Source: *W.Arlidge, Coastal Veterinarian Group, Opunake*

Copper Treatment

Costs per Cow (for season):

Copper injection (Coprin)	\$2.00
Copper bolus (Cuprax)	\$4.50

Source: *W.Arlidge, Coastal Veterinarian Group, Opunake*

Cobolt injection per calf	\$0.85
Copper capsule per calf	\$2.40

Antibiotics (for cattle)

Intra-mammary tubes

(i) Cows in milk: (generally require a course of three tubes; sold 20 per box)	<u>Price</u> <u>per tube</u>
Lactating Orbenin LA	\$2.15
Mastalone	\$2.50
Streptopen Milking Cow	\$1.59
Streptopen High Potency	\$2.12
Nafpenzal	\$1.98
Vetimast (only 1 tube required)	\$4.73
(ii) Dry Cows: (generally sold in boxes of 80 tubes)	<u>Price</u> <u>per tube</u>
Cepravin	\$2.00

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

	<u>Price per</u> <u>100 ml</u>
Propen S (about 30 to 50 ml per dose)	\$23.95
Propen LA (about 30 to 50 ml per dose)	\$16.00
Injectable Ceporex (no milk withholding period) (1 ml per 25 kg live weight per day required, over 3 to 5 days)	\$49.27

2.3.5 Veterinary Expenses

Veterinary club charges vary depending on the club. A typical membership fee would be \$25, which allows members up to 10% discount on most services.

Consultation fees are usually in the range of \$71 to \$98 per hour, with specialised surgery fees being up to \$166 per hour.

Most vets have a minimum charge per visit of \$17 to \$29.

Charges for specific services usually include a visit fee plus a per head rate eg:

Ram Bleeding	\$5.50 per head
Ram Palpation	\$0.90 per head
Caesarian	\$120 to \$186 per head
Pregnancy Testing	\$2.00 per head

Note: See also Section 2.3.8 - Inducing Dairy Cows, Vet. Appraisal of Bulls

Velveting Visit Charge: \$27.50, plus \$10.20 charge per head, plus \$2.00 to \$3.00 local anaesthetic (red deer), plus tranquillising drug \$5.00 to \$8.00 (depending on the facilities available and the degree of chemical restraint required).

TB Testing Visit	\$112.00
- plus drug - Avian	\$0.90 per head
- Bovine	\$0.25 per head
- plus clipper hire	\$30.00 per 100

Small Animal Consultation \$25.00

Mileage is usually chargeable @ 75¢ per kilometre.

HEALTHY STOCK = HEALTHY PROFITS

**INCREASE PRIDE IN YOUR STOCK AND IMPROVE YOUR RETURNS BY
CONSULTING YOUR VET**

ON

- Improving stock production and profitability
- Getting the best results from animal remedies
- Eliminating unnecessary chemical use

NEW ZEALAND VETERINARY ASSOCIATION

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 = \$86.75 per animal.

2.3.6 Animal Health Equipment

Peta Enterprises:

Bloat Mix Dispenser	24 hour	\$77.15
	12 hour x 2	\$164
Zinc Dispenser		\$147
Multi-purpose Solid Dispenser (except zinc)		\$138

Pitman-Moore:

Drench Gun	12.5 ml	\$72.00
Drench Back Pack	5.0 litre	\$23.10
Cooper Colt	20.0 ml	\$128

Engineering Dynamics:

Pneumedic Power Drenching Systems -		
Pneumedic Unmetered System		\$1575
Pneumedic Handguns		\$72.50
Pneumedic Basic Metered System		\$3391

Agrifeeds Limited:

Agrifeeder for liquid supplements 125 and 250 kg		\$115 and \$149
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Shoof International: (Includes freight)

Automatic drench gun (20 to 70 ml)		\$86.67
Manual drench gun (20 to 150 ml)		\$52.45 to \$62.18
Automatic Vaccinators - syringes 2 ml/5 ml		\$79.56/\$115
- injectors 20 and 50 ml		\$86.67

Multi-function kits	- (manual) 4 in 1	\$200
	- (automatic) 4 in 1	\$218
	- (automatic and manual) 8 in 1	\$248
Cattle shoof - all models		\$20.00

Drench Gun Services:

Drenchgun	20 ml	\$136.00
Drenchgun	120 ml	\$193.05
Vaccinator	5 ml	\$143.25

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:

Selwyn District Council:

	Single Dog	Subsequent Dogs
Movement Control	\$35.55	\$17.78
Special Owner Policy	\$31.10	\$13.30
Hydatids 6 weekly treatment	\$53.30	\$35.55
	(plus \$17.78 if paid after 20th August)	

Palmerston North City Council:

	Per Dog
Urban	\$60.00
Preferred Owner (urban)	\$35.00
Rural	\$35.00

Dog feed - see *Section 2.3.13*

2.3.8 Breeding Expenses

Dairy farmers are currently spending about \$20 a cow per year on *breeding and testing* (combined).

Source: M.A.F. Farm Monitoring Report, 1994

Artificial Breeding:

Livestock Improvement Corporation (Auckland/Waikato Region) - 1994/95:

Premier Sires (Technician Service)	Per Cow Rate	Per Insemination Rate	
	Spring	Spring	Non-Spring
First 100 Cows	\$14.70	\$11.70	\$12.30
Second 100 Cows	\$14.10	\$11.20	\$11.80
Third 100 Cows	\$13.40	\$10.70	\$11.20
Fourth 100 Cows	\$12.80	\$10.20	\$10.70
Thereafter	\$12.10	\$9.60	\$10.20

<u>Premier Sires</u> (DIY Operators)	<i>Per Insemination Rate</i>	
	Spring	Non Spring
First 100 Cows	\$10.70	\$11.30
Second 100 Cows	\$10.20	\$10.80
Third 100 Cows	\$9.70	\$10.20
Fourth 100 Cows	\$9.20	\$9.70
Thereafter	\$8.60	\$9.20

<u>Nominated Insemination Charge</u>	<i>Per Insemination Rate</i>	
	Spring	Non-Spring
	\$4.00	\$4.50

(Semen prices range from \$4.00 per dose for beef breeds up to \$25.00 per dose for dairy breeds). Average is about \$10 to \$13 per straw, without technician.

Livestock Improvement Corporation (Taranaki Region) - 1994/95:

<u>Premier Sires</u> (Technician Service)	<i>Per Cow Rate</i>	<i>Per Insemination Rate</i>
	Spring	Spring/Non-Spring
First 100 Cows	\$13.70	\$11.20
Second 100 Cows	\$13.00	\$10.70
Third 100 Cows	\$12.30	\$10.10
Fourth 100 Cows	\$11.60	\$9.50
Thereafter	\$10.90	\$8.90

<u>Premier Sires</u> (DIY Operators)	<i>Per Insemination Rate</i>	
	Spring/Non-Spring	
First 100 Cows	\$10.20	
Second 100 Cows	\$9.70	
Third 100 Cows	\$9.10	
Fourth 100 cows	\$8.50	
Thereafter	\$7.90	

<u>Nominated Insemination Charges</u>	<i>Per Insemination Rate</i>	
	Spring	Non-Spring
	\$4.50	\$5.10

Livestock Improvement Corporation (South Island) - 1994/95:

<u>Premier Sires</u> (Technician Service)	<i>Per Cow Rate</i>	<i>Per Insemination Rate</i>	
		Spring	Non-Spring
First 100 Cows	\$17.70	\$14.40	\$16.60
Second 100 Cows	\$16.70	\$13.60	\$15.70
Third 100 Cows	\$16.00	\$13.10	\$15.10
Fourth 100 Cows	\$15.50	\$12.70	\$14.70
Thereafter	\$14.50	\$11.70	\$13.60

<u>Premier Sires</u> (DIY Operators)	<i>Per Insemination Rate</i>	
	Spring	Non-Spring
First 100 Cows	\$13.40	\$15.60
Second 100 Cows	\$12.60	\$14.70
Third 100 Cows	\$12.10	\$14.10
Fourth 100 Cows	\$11.70	\$13.70
Thereafter	\$10.70	\$12.60

<u>Nominated Insemination Charges</u>	<i>Per Insemination Rate</i>	
	Spring	Non-Spring
	\$4.50	\$5.10

(Semen prices range from \$5.00 per dose for beef breeds up to \$25.00 per dose for dairy breeds). Average is about \$11 to \$14 per straw, without technician.

Inducing Dairy Cows

A Taranaki veterinary club charges the following for inducing:

First visit fee	\$17.00
Per animal fee	\$0.50
Drug per animal (long lasting cortisone)	\$5.80
Second visit fee	\$14.50
Per animal fee	\$0.50
Drug per animal (short acting cortisone)	\$3.80
Cost per cow	\$42.10

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 2.4.5*

2.3.9 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 \$6000 to \$20000

Hereford \$5000 to \$15000

Charolais \$4000 to \$12000

Run Bulls from second tier studs are usually in the range of \$3000 to \$6000.

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

Dairy Cattle

See *Sections 1.5.5 and 1.5.7*

Sheep

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	\$200 to \$500		

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
1/2 (Dorset Cross)	\$350	\$250 to \$450

Oxford Down:

Purebred	\$250 to \$400
7/8	\$200 to \$350
3/4	\$200 to \$300
1/2	\$100 to \$200

Finnish Landrace: 1/2 bred \$250 to \$350

Ewes, Two Teeths, Lambs - see *Section 1.2.11*

*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 \$4,000. Some very high producing stags have been sold for up to \$35,000.

The average price for Wapiti breeding stags is between \$3,000 and \$4,000 with some top stags reaching \$20,000.

Hinds, Weaners, Yearlings, Velveting Stags - see *Section 1.6.3*

Goats - See *Section 1.7.6*

2.3.10 Herd Testing Charges

General

Dairy farmers are currently spending about \$25 a cow per year on *herd testing and breeding* (combined).

Source: M.A.F. Farm Monitoring Report, 1994.

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.

Livestock Improvement Corporation (Auckland/Waikato Region) - 1994/95:

Standard Herd Testing Service (includes one staff member)

Herd Fee (per year)	\$200
Per Visit Fee	\$50
Per Cow Test Fee	\$1.50

Self Sample Herd Testing Service (without labour)

Herd Fee (per year)	\$200
Per Visit Fee	\$20
Per Cow Test Fee	\$1.15

Livestock Improvement Corporation (Taranaki Region) - 1994/95:

Standard Herd Testing Service (includes one Staff member)

Herd Fee (per year)	\$150
Per Visit Fee	\$145
Per Cow Test Fee	\$1.20

Self Sample Herd Testing Service (without labour)

Herd Fee (per year)	\$150
Per Visit Fee	\$55
Per Cow Test Fee	\$1.25

Livestock Improvement Corporation (South Island) - 1994/95:

Standard Herd Testing Service (includes one staff member)

Herd Fee	\$200
Per Visit Fee	\$110
Per Cow Test Fee	\$1.70

Additional labour units are charged at \$135 per labour unit per visit.

Self Sample Herd Testing Service (without labour)

Herd Fee	\$200
Per Visit Fee	\$60
Per Cow Test Fee	\$1.50

Somatic Cell Counting (New Zealand Wide)

For each district the Somatic Cell Count charges are the same as for the herd test fees.

MINDA Herd Records Service

1. Livestock Improvement clients who use Herd Testing are automatically enrolled to use MINDA - the MINDA charges are not included in the Herd Test fees listed.
2. The charges for providing only the MINDA service are:
\$150 Herd Test plus \$1.05 per animal, 24 months of age or over.

For clients who use Herd Testing and mate at least 70% of their herd to Premier Sires the MINDA fee is reduced by 20%.

i.e. Herd fee of \$120.00 plus \$0.84 per animal

ULTI - Integrated Package

Livestock Improvement also offer a package which includes Herd Testing/Somatic Cell Counting/Artificial Breeding/MINDA/Farm Consultancy/Eartags.

2.3.11 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 \$18 per cow per year. This does not include animal health (see *Section 2.3.1*) or electricity (see *Section 2.5.1*).

Source: M.A.F. Farm Monitoring Report, 1994.

Detergents and Sanitisers

Agmax Industries:

Multisan 300 Acid Detergent/Sanitiser	100 litres	\$262
Multiwash 900 Alkaline Detergent	100 litres	\$209

Nu Farm:

Iodophor Daily Sanitiser	20 litre	\$101
Lo-Count Super	100 litre	\$513
Lo-Count Alkali	10 kg	\$55

Klenzade:

Klenz Iodophor - sanitizer	20 litre	\$89
Iodovat - kold klenz	20 litre	\$110
Q Klenz - sanitizer and cleanser	20 litre	\$98
Low Foam Q Klenz	20 litre	\$98
Klenz Alltemp	20 litre	\$88
Klenzphos H.C.milk stone remover	20 litre	\$134
Stainless Steel Detergent	20 kg	\$109
Kleer Klenz - alkaline cleaner	20 kg	\$98
Principal	20 litres	\$91
Klenzaid	20 litres	\$79
Chloride of Lime	9 kg	\$43
Caustic Soda	20 kg	\$61

Diversey:

Mycorinse detergent	180 litre	\$719
Low Foam Mycosan dairy sanitizer	20 litre	\$102
Mycosan S dairy sanitizer	20 litre	\$102
Deosan Acid Bright Low Foam	20 litre	\$84
Deosan Alternate 50C	20 litre	\$77
Deosan Coldbrite	20 litre	\$102
Deosan D90	15 Kg	\$129
Deosan Whirl	18 Kg	\$92

Dairy Ointments, Soaps and Teat Sprays

Klenzade:

Blu Gard	20 litres	\$174
Teat Guard plus	20 litres	\$148

Agmax Industries Ltd:

Teatspray (concentrate)	100 litres	\$351
Iodine	20 litres	\$107
Sorbitol	20 litres	\$58

Nu Farm:

Teat Dip and Spray	100 litres	\$546
Teatspray Plus	20 litres	\$165.60
Udder Cream	3.5 kg	\$34.86

Ancare:

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

Pitman-Moore:

Hibitane	17 kg	\$98
Hibitane MCC	20 litres	\$151
MCC Plus	20 litres	\$173

Diversey:

Teatspray	20 litre	\$140
Teat Ex	20 litre	\$180

Dairy Shed Equipment

Milfos International Ltd: (1994 prices)

Claws - complete	\$134.40
Teat cups (each)	\$14.50 to \$16.75
Pump diaphragms (each)	\$25.00
Liners (each)	\$4.75 to \$7.95
Inline filters 76 x 550 to 102mm x 670mm	\$357 to \$487
Inline filter socks	\$30 to \$62 per 100
Vacuum regulator - 2800 litre/4000 litre	\$204 to \$231
Pulsators	\$189
Milk cooler	\$819 to \$1679
Vat washers - single and double head	\$115 to \$234
Shed Aprons	\$28 to \$32
Milka-Ware Milk Pumps	\$2530 to \$4630
Vacuum Pumps MP 80 to MP 450	\$1606 to \$5432

Alfa-Laval:

Cup Removers only	- Electronic	\$1000
	- Mechanical	\$640
Liners		\$4.90
Shells (Teatcups)		\$20
Oil Recirculating Mufflers		\$995
Recirculating Washing System	18 Unit	\$3240
Teat Sprayers		\$595
Vacuum Pumps	- Masport Master	\$1790
	- Masport Super	\$2172
Vacuum Pump Oil	- 20 litre	\$73.77
	- 4 litre	\$16.00
Claws	- Standard Harmony	\$140
	- Hiflo Harmony	\$140
	- Topflo (TF 350)	\$295
HP102/EP100B Pulsator		\$290/\$235

Bell Booth Ltd:

Dispenser units	- Dosatron 2000	0.2% to 1.6%	\$1095
	- Dosatron 8000	0.2% to 2%	\$2200
	- Dosatron 20000	0.2% to 2%	\$5000
	- Water filters		\$118 to \$537

Marshall Water Heaters: (1994 prices)

Insulated water heaters	- 273 litre	\$1980
	- 550 litre	\$2800
	- 865 litre	\$3733
	- 1025 litre	\$4044

Agmax Industries:

Vacuum Pump Oil	- 210 litres	\$489
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Note: For complete dairy shed units see *Section 2.21.2*

Dairy Shed Inspection Fees

Annual basic inspection fees for dairy sheds were about \$120 to \$150 per shed.

Machine checks were about \$100 to \$220 per shed.

2.3.12 Calf Rearing

Cost of Calf Rearing

(Source: I.M.Brookes, Massey University 1993)

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
			<hr/>
			\$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
			<hr/>
			\$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
			<hr/>
			\$107

Milk Replacers: see *Section 2.3.13*

Calfateria

McInnes Manufacturing Ltd:

Mobile Milk Bar: Through fence or front end loader use

24 teat - 450 litres	\$790
36 teat - 450 litres	\$908

Full Circle Mobile

50 teat - 450 litres	\$1595
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Fence Hanging Feeders	
Junior Milk Bar - 60 litres, 10 teats	\$106.20
Mini Milk Bar - 15 litres, 5 teats	\$66.50
Uni Milk Bar - 3 litres, single teat	\$17.73

Croplands Equipment Ltd:

200 litre Calf Feeder - 20 teats	\$845
325 litre Calf feeder - 28 teats	\$945

Other Calf Rearing Equipment

McInnes Manufacturing Ltd:

Sheltered Meal Bar	\$88.00
Bird Proof Meal Bar	\$155.35
Munch Trough	\$59.80
Snack Bar	\$34.00
Portable Water Trough	\$97

2.3.13 Feed and Nutrition

Milk Replacers

Skellerup Stockfoods Ltd:

Denkavit - calf milk	20 kg	\$68.00
- lamb milk	10 kg	\$45.00

Bomac Laboratories:

Lamblac - ewe milk replacer	3 kg	\$17.55
Nutrilac - milk replacer for lambs, fawns, kids	5 kg	\$36.86
Nutrifoal - high milk protein and vitamins for horses	20 kg	\$94.71

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

Agmax Industries Limited:

Agmax stockfood supplement	100 litres	\$204
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Agrifeeds Limited: (ex Tauranga)

	<u>Drum Size</u>	
	<u>25 kg</u>	<u>250 kg</u>
Promag/Himag - cattle	-	\$196.65
Causmag XLM/AL4	\$23 per kg	-
Copper Sulphate	\$55.77	-
Magnesium Sulphate	\$22.42	-
Zinc Sulphate	\$26.45	-
Equestri-feed - horses	\$54.05	\$254
Molasses - feedgrade	\$33.35	\$128
- blackstrap	\$35.65	\$135
Calcium Chloride	\$20.70	-

<i>Bomac Laboratories:</i>	<u>Pack Size</u>	<u>Price per Pack</u>
Blud - vit B, Cu, Cl, Fe, Biotin and amino acids	30 sachets	\$75.64
Bomin - Oral Mineral Supplement	1 litre	\$16.66
Calphos (calcium supplement + Vit D for horses)	2.5 kg	\$32.84
Dexolyte (Dextrose energy supplement)	1.0 kg	\$16.54
Ephocal (Ca and P Feed Suppl.)	2.5 kg	\$39.20
Equine Iron Tonic	5 litre	\$86.20
Equiplex (liquid B grp vit. for horses)	2.0 litre	\$37.50
Ewe Life - Liquid electrolytes/dextrose	2.0 litre	\$21.93
Feramo H (vit./mineral suppl.for horses)	2.5 kg	\$35.78
Ironcyclen Liquid Co + Cu (for horses)	1.0 litre	\$20.71
Nutrequin Horse and Deer Supplement	3.5 kg	\$45.48
	20 kg	\$227
Stock Iodine (added to drinking water)	1 litre	\$18.42
Tasmix Hi-E + Se - Vitamins A,C,D & E	1.0 kg	\$61.16
Vigest - Amino acids, Vit. B, Dextrose	2 litres	\$26.59

Bomac:

Ruminant Premixes

	<u>Bag</u>	<u>Price per Bag</u>
Bomix Dairy/Beef	25 kg (bulk)	\$81
Bomix Calf Milk Supplement	5 kg	\$54.54
	20 kg	\$207
Vitamix-ADE (water dispersable Vitamins)	300 g	\$41.18

Salt

Summit:

Salt blocks - Multi Mineral (20 kg)	\$17.00
- Copper/Mineralised/Salt/Magnesium (20 kg)	\$14.80

Dominion Chemicals Ltd:

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

Agrifeeds Ltd: (ex Tauranga)

Coarse Salt (25 kg)	\$8.05
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Concentrates - Meal/Crumble/Pellet/Nut

Skellerup Stockfoods Ltd:

Multinuts	per tonne	\$450
Weenamom Calf Meal	40 kg	\$28
Weenamix Calf muesli	40 kg	\$30

<i>Harvey Farms Pty Limited: (1994 prices)</i>	<u>40 kg</u>
	<u>Bag</u>
Topcalf Cereal Mix Plus	\$25.60
Topcalf Pellets	\$22.20
Topcalf Pellets/Nuts Plus	\$23.80
Hi Energy Dairy Pellets/Nuts	\$21.40

<i>Supastok Feeds:</i>	<u>40 kg</u>	<u>Bulk</u>
	<u>Bag</u>	<u>per</u>
		<u>tonne</u>
DRC - Nuts, Crumble, Pellets	\$15.00	\$300
HE S/F Dairy Ration	\$16.20	\$330
Calf Growa	\$19.50	\$410
S/F Calf Growa	\$23.00	\$500
Sheep Nuts	\$16.00	\$323
Deer Nuts	\$16.30	\$335
S/F Stud Beef	\$21.06	\$439
Horse Pellets	\$16.20	\$333
Rabbit Pellets	\$17.30	\$363

Poultry Feeds and Premixes

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

	<u>Bulk Price Per Tonne</u>
Chick Mash	\$446
Chick Crum	\$457
Pullet Grower Mash	\$351
Pullet Grower Crum	\$357
Pullet Grower Low Energy Mash	\$324
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 Fin.1 Pellet	\$566
Broiler Fin.2 Pellet	\$551
Broiler Fin.3 Pellet	\$533
Broiler Breeder Starter Crums	\$469
Broiler Breeder Grower Crums	\$381
Broiler Breeder Layer Crums	\$415

<i>Bomac:</i>	<u>Bag</u>	<u>Price per bag</u>
Bomix 115 Chick Starter/Pullet	25 kg	\$289
Bomix 125 Layer	25 kg (bulk)	\$122

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

<i>Bomac:</i>	<u>Bag Size</u>	<u>Price per bag</u>
Bomix 100 Pig Creep	12 kg	\$132.20
Bomix 200 Pig Weaner	25 kg	\$249.40
Bomix 300 Pig Grower/Finisher	25 kg (bulk)	\$160.00
Bomix 300 Pig Grower Finisher + Salinomycin (posistac)	25 kg	\$244.55
Bomix 400 Pig Breeder	25 kg (bulk)	\$239.00
Bomix 500 Pig Standard Premix	25 kg (bulk)	\$134.00

<i>Supastock Feeds:</i>	<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:

Meat and bone meal - average \$540 to \$650 per tonne

Skim Milk powder - \$1700 to \$2650 per tonne depending on quality

Barley meal - Most farmers buy barley and grind it themselves. Current Canterbury price \$200 to \$260 per tonne (less if direct from grain grower, add \$30 to \$40 per tonne for on-farm milling and mixing).

Dried blood - \$900 to \$1000 per tonne average

Fish meal - \$1010 to \$1105 per tonne

Plus Mineral, vitamin and premixes etc.

Dog Feeds*Skellerup Stockfoods Ltd:*

Tomoana dog crackers	40 kg	\$54.70
Cobber Working Dog Food	22.5 kg	\$35.00
<i>Rovers:</i> Dog food crackers	40 kg	\$60.00
<i>Tux:</i> Dog food crackers	40 kg	\$64.45

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

Depends on area, season and quality.

Summer 1994/95 prices for average/good quality bales were approximately as follows:

<u>Canterbury</u>		<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
<u>Hawkes Bay</u>			
Hay:	Meadow	\$4.00 to \$5.00	\$50
	Lucerne	\$4.50 to \$5.50	-
	Standing	\$1.00 to \$2.00	-
<u>Taranaki</u>			
Hay:	Behind Baler	\$4.00 to \$5.00	\$50 to \$75
	Standing	\$2.00 to \$2.50	-
<u>Waikato</u>			
Hay:	Behind baler	\$4.00 to \$5.00	-
	Standing	\$1.50 to \$2.00	-
<u>Southland</u>			
Hay:	Behind baler	\$3.50 to \$4.00	-
	Standing	\$1.50	-

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 1994/95 are approximately:

Dairy Cattle

Region:	Cost per Head per Week		
	<i>Calves</i> <i>(Weaning to May)</i>	<i>Yearling heifers</i> <i>(May to May)</i>	<i>Cows</i> <i>(Winter)</i>
Bay of Plenty	-	\$4.50 to \$6.50	\$7.00 to \$15.00
Waikato	\$2.00	\$4.50 to \$6.00	\$8.50 to \$12.50
Hawkes Bay	-	\$5.50 to \$7.00	\$10.00 to \$14.00
Taranaki	\$3.25	\$4.50 to \$5.50	\$12.00 to \$14.00
Canterbury	\$3.00	\$5.00 to \$6.00	\$6.00 to \$12.00
Southland	-	\$4.20 to \$5.00	\$10.00 to \$12.00

Sheep and Beef

		Cost per Head per Week:	
		<i>Canterbury</i>	<i>Southland</i>
Sheep	- summer - ewes	20 to 50¢	25 to 35¢
	- winter - hoggets	25 to 50¢	65 to 75¢
	- ewes	40¢ to \$1.00	75 to 100¢
Breeding Cows -		\$3 to \$6	\$6 (\$3 summer)
Dry Cattle	- weaners	\$2 to \$5	\$3 (\$1 summer)
	- steers	\$3 to \$5	-

Maize Silage-Buying In

Waikato farmers are paying about 21 cents per kilogram of dry matter, for bought in maize silage (landed).

2.3.14 Wool and Shearing Expenses

(See also *Section 3.2.*)

Sheep Farmers are currently spending about \$3.30 per stock unit (South Island) and \$4.00 per stock unit (North Island) on shearing and shed expenses in total per year. These figures are based on total stock units wintered.

Canterbury: When budgeting for shearing (full wool) costs, a figure of approx. \$1.60 per head (\$1.70 if classed) may be used for the average "semi-open" 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

Manawatu, Wanganui, Wairarapa

Generally smaller sheds

Contract rate - \$160 to \$180 per 100 sheep

Open rate - \$90 to \$100 per 100 sheep

Lambs 10% less

Crossbred South Island

Canterbury: (1994 rates) Most sheep shorn under an open rate

Lambs - \$0.94 to \$1.00

Ewes (belly crutched) - \$0.93 to \$0.96

Ewes (full wool) - \$1.00 to \$1.12

Ewes (merino) - \$1.13 to \$1.25

Merino wethers - \$1.35

Contract rate - \$180 per 100 sheep

Southland: Contract rate - \$180 to \$185 per 100 sheep

Open rate - \$100 to \$110 per 100 sheep

Blade Shearing (Canterbury):

Open:	Belly Crutched	\$130 per 100 sheep
	Crutched	\$136 per 100 sheep
	Full Wool	\$147 per 100 sheep
	Full Wool (merino wether)	\$155 per 100 sheep
Semi-Contract:	Belly Crutched	\$225 per 100 sheep
	Crutched	\$235 per 100 sheep
	Full Wool	\$246 per 100 sheep
	Full Wool (merino wether)	\$262 per 100 sheep
Full-Contract:	Belly Crutched	\$255 per 100 sheep
	Crutched	\$265 per 100 sheep
	Full Wool	\$276 per 100 sheep
	Full Wool (merino wether)	\$292 per 100 sheep

Other Shearing Costs are as follows:

Full Belly Crutch, flank, eyewig	\$51 per 100 sheep
Crutching 1/2 belly	\$39 per 100 sheep
Crutching 1/2 belly and eyewig	\$40 per 100 sheep
Buttonhole	\$35 per 100 sheep
Shed hand rate	\$11 to \$13 per hour
Presser rate	\$12 to \$15 per hour
Classing rate	\$27 to \$30 per 100

Plant*Agrisales: Shearing Plant*

'Super Pro' 1 Phase Electric Plant (complete with rigid downtube)	\$1233
Super Eclipse Handpiece	\$488
Portable Dagging plant, Petrol	\$1342

Actoagriculture:

Lister Shear Leader electric shearing plant	\$1429
Lister 2 Speed electric with flexible/rigid downtube	\$772
Electric dagging unit with flexible downtube less rails	\$844
Lister Black Tallygrip Handpiece	\$552
Electric Clippers for Deer	\$652

Heiniger (Allflex NZ Ltd):

12 Volt Handpiece - Complete	\$574
Cordless Battery Clipper	\$590
Sheepshear Clipper	\$453

Combs and Cutters*N.Z Shearing Supplies:*

Combs	- Super Flight/Pacer/Nova	\$29.78 to \$32.35
	- Cover comb/Goat comb	\$41.87
Cutters	- AAA/ Big Gem Cutter	\$5.68

Agrisales: Sunbeam

Cutters	\$56.80 per 10
Combs	\$30.11
Cover comb	\$38.85

Heiniger (Allflex NZ Ltd.):

Combs	\$34.13
Cutters	\$6.65

Electric Grinders

Lyco NZ:

Double Ended incl. motor frame, disc/clamp plate kit and pendulum	\$1280
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Actoagriculture:

Lister Electric Grinder Double Ended	\$1456
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Heiniger (Allflex NZ Ltd):

Double ended grinder	\$1300
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Emery Papers

N.Z. Shearing Supplies:

Ramshead - Fine	\$4.40
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- Coarse	\$4.40
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Heiniger (Allflex NZ Ltd):

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

Allflex NZ Ltd:

High Country single phase	\$11,563
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Super Press 3 Phase	\$13,500
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Van-Gard FMI Hydraulic	\$5125
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Donald Manual Vertical Hoist Model HSW steel	\$3187
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Lyco NZ Ltd:

Power Tech 'S' 220V 3 HP	\$11,400
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Power Tech 'S' 10HP 3 phase	\$12,190
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Wool Tables

Lyco NZ:

Fleecemaster round including scales	\$1512
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Fleecemaster round standard	\$727
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Fleece Weighers*Allflex N.Z. Ltd:*

Fleece weigher - 15kg Clockface Type \$208

Bale Weighers*Allflex N.Z. Ltd:*

Electronic Scales up to 2000 kg for weighing bales \$1225

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

Ashley Wool and Sack:

Packs (capless) - new (each) \$4.25

- recycled (each) \$4.00

Woolbale clips for capless packs - recycled (1kg) \$3.50

Calder Stewart Industries Ltd:

Wool Skips \$172

Fadge Holders \$82

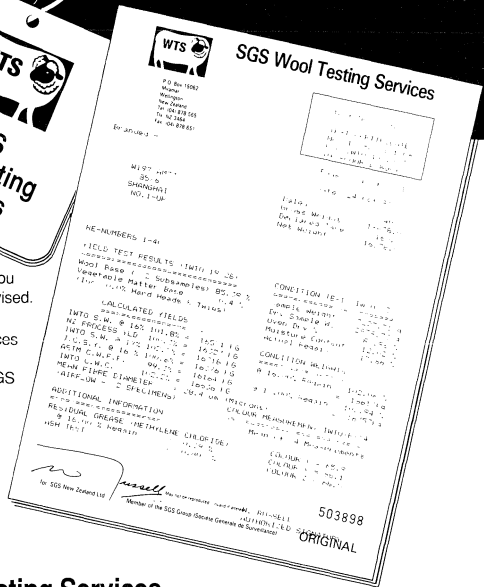
Grinder Stands \$260

Dag Bins \$325

Wool Bins - mesh \$480

- ply \$590

Internationally Certified Wool Testing



Wool Testing Services Certificate is your assurance. Because Wool Testing Services is part of SGS New Zealand Ltd, you know that your wool is internationally supervised. SGS is the world's largest control and inspection organisation. There are SGS offices in over 140 countries around the world. Wherever your wool goes it's covered by SGS and its international reputation. No other organisation can offer you this service. Service where you want it. Our national network is strategically placed to provide you with responsive service where you need it. For your wool testing requirements contact any of our eight branches.

Contact:



SGS Wool Testing Services

48 Kemp Street, P.O. Box 15062
Wellington.
Telephone 0-4-387 8565, Telex 3464
Fax 0-4-387 8651

Auckland 0-9-262 4250
Napier 0-6-835 3929
Wanganui 0-6-345 8061
Wellington 0-4-387 8565

Christchurch 0-3-366 4000
Timaru 0-3-688 8813
Dunedin 0-3-477 9057
Invercargill 0-3-218 8009

SGS New Zealand Ltd - Member of the SGS Group (Société Générale de Surveillance)

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:

Yield and Average Fibre Diameter test (includes ranking)	\$5.50 per sample
Enquire for other tests e.g. Susceptibility to yellowing	\$2.50 per sample
Average Fibre Diameter by airflow	\$4.00 per sample
Fibre Diameter by O.F.D.A.	\$3.75 per sample

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

Fibre Testing Charges

Whatawhata Fibre Testing Centre:

Cashmere, Cashgora and Mohair	
Full Test: Down yield, diameter, colour (full test report)	\$15
Down Yield and Colour	\$10
Fibre Diameter and Colour (full test report)	\$4
Fibre diameter (flock listing): minimum of 20 samples submitted	\$4
Full Test plus scoured yield (N.B. only Mohair)	\$18

Fibre Handling and Classing Charges - see *Section 2.10.4*

2.3.15 Stock Management

Mating Management Aids

Donaghys:

Stafix Ram/Goat Harnesses	\$22.67
Crayons - Soft	\$3.40 each

Tailing and Marking Requisites

Lycor: Lamb Cradles

Holdmaster Cradle	- single	\$215
	- 4 berth	\$1250
Rolla Master		\$669
Rolla Master Contractor Model		\$789

Allflex NZ Ltd: (1994 prices)

Earmarkers (Rim cuts)	- sheep	\$76 to \$175
	- cattle	\$107 to \$214
Sheep and Goat Daroux Emasculator		\$102
Age marker	- single/double cattle	\$107/\$141
	- single/double sheep	\$75/\$115
Elastrator Applicator		\$33.00
Elastrator Ring Dispenser		\$62.00

Leader Products:

Docking Rings (500 per packet)	\$8.40
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Shoof International: (freight included)

Medium V earmarkers	\$53.29
Stone ear hole punch (9mm)	\$62.18

Ear Tags

Allflex NZ Ltd: (1994 prices)

4 male and 6 female tags available, all interchangeable, giving 24 possible combinations -

28 to 59 cents each (blank), numbering or lettering 30 cents extra.

Per animal cost 61¢ to \$1.78 depending on size of tag and whether numbering or lettering is required.

Hi-View/Neck tag	Blank \$1.25, Numbered \$1.60 each.
Farm-acy Brass Tag	30¢ each
Farm-acy Twister Tag	61¢ each
Farm-acy Kurl Lock (aluminium)	30¢ each
Farm-acy Flock	18¢ each
Farm-acy Roto	20¢ each

Leader Products (N.Z.):

Two Piece Flexible - prices vary with size of tag:

	Price per Piece	
	Plain	Stamped
Male - sizes M1 to M5	31¢ to 51¢	42¢ to 68¢
Female - sizes F1 to F5 (including SF4)	25¢ to 65¢	47¢ to 80¢
Bell tag	51¢	67¢

	Price per 100 tags				
	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!

Ear Tag applicators and accessories

Allflex NZ Ltd:

Applicators (Flock tag)	\$42.40
Farm-acy One Shot Applicator	\$52.47
Roto Tag System	\$27.83

Leader Products (N.Z.):

Two Piece Applicator	Two models - \$20 or \$68
Leadermatic applicator	Two models - \$38 or \$50
Multitag Applicator	\$20.00
Swivel Tag Applicator	\$25.00

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

Raddles and Markers

Donaghys:

Sprayline Aerosol Marker - 400 g can	\$8.26
Brightline Stick Raddle (per stick)	\$16.60 per 20
Tailpaint - 425 ml - standard	\$34.80 per 12
- fluoro	\$149.00 per 20

Shoof International:

Cull Cow paint;aerosol	\$12.66
Line master aerosol paint	\$12.66
Line master spot marker	\$95.56
Animal marking crayon (box 10)	\$8.90

Brands and Tattoos

Shoof International Ltd:

Ear Tattoo Set includes numbers	10 mm	\$126
Letter set		\$79.11
Number set		\$28.40

De-Horning

Allflex NZ Ltd:

Farm-acy calf dehorners	\$41.00
Farm-acy yearling dehorners	\$255

Electro-tek Engineering Ltd:

- Yearling de-horners	\$201
- Manual calf de-horner	\$32.20

Hoofcutting

<i>Electro-tek Engineering Ltd:</i>	Hoofcutter double action	\$90.60
	Foot-rot shears	\$20.70
<i>Shoof International Ltd:</i>	Hoof trimmer, double action	\$88.85

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

Allflex NZ Ltd:

Weighing System -

FX 31 600mm loadbars, digital indicator, AC adaptor	\$2311
FX 1000mm loadbars, digital indicator, AC adaptor	\$2516
FX Indicator	\$1125
FX 600mm Loadbar Set (2)	\$1125
FX Series Printer	\$685
F 600 Weighing System - Metric	\$1272
F 1000 Weighing System - Metric	\$1450
Linker Package	\$150
Platforms -	
Cattle Platform - Alloy	\$550
Cattle Platform - Steel	\$485
Woolpress weighing platform	\$406
Standard sheep crate	\$750

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:

(Note that 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

Allflex NZ Ltd: (Donalds)

Head Bail Automatic Walk-through	\$1375
- galvanised	\$1687

Heenan: Canterbury (1994 prices)

Standard Deer Handler (driven off tractor hydraulics)	\$5600
2HP motor power pack	\$1000
Extension hoses 5m/10m/15m	\$170/\$260/\$350

<i>Wiremakers: Hayes</i>	
Goat Handler	\$1154
Head Bail (cattle and deer)	\$609

Prattley Engineering:

(Note that prices are slightly higher in the North Island)

Cattle Crushes	\$2600 to \$8526
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Williams Engineering:

Calf dehorning bail	\$789
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Pregnancy Diagnosis/Back fat/Rib Eye Sonography

(See *Section 2.4.5* for charges if a contractor is used)

Medtel

Aloka SSD-21ODX (Portable ultrasound machine)	\$9,990
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Aloka UST-5020-3.5 (Electronic linear probe 3.5 MHz, 107mm width)	\$6,500
- Sheep pregnancy diagnosis	
- Back fat/Rib Eye muscle (cattle)	

Aloka UST-5813-5 (Electronic linear probe 5MHz, 65mm width)	\$10,500
- Pregnancy diagnosis (horse/deer/cattle)	
- Horse tendon scanning	
- Ovia ultrasound (horse/deer/cattle)	
- Back Fat/Rib Eye sonography (sheep/deer/pig)	

Canbay Pig Development Co

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

Dog Trainers

<i>Agtronics:</i> electronic dog trainer - single unit	\$718
- dual unit	\$1233
- hire rate, per week	\$40

Cowsling

<i>Ancra N.Z Ltd:</i> Elfin E-Z-Up	\$209
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<i>Straitline Canvas Ltd:</i>	\$140
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Calf Covers

Palmer Canvas and Synthetics Ltd:

		<u>Number</u>	
		10	100
Polyethylene Fabric	\$90	\$413	\$765
Polyethylene Fabric Lined	\$124	\$588	\$1115
Canvacon Fabric	\$122	\$563	\$1020

<i>Straitline Canvas Ltd:</i>		<u>Length</u>	<u>Number</u>		
		<u>Wither to Tail</u>	10	50	100
Animac Polyethylene Calf Covers	400 mm		\$67	\$277	\$518
	650 mm		\$67	\$277	\$518
Deluxe Calf Covers	800 mm		\$83	\$347	\$648
	1100 mm		\$120	\$517	\$966
Jute Calf Covers	650 mm		-	\$537	\$1016
	1100 mm		-	\$807	\$1526

Cow Covers

<i>Palmer Canvas and Synthetics Ltd:</i>		<u>Number</u>		
		5	25	100
Polyethylene Fabric		\$81.75	\$353.75	\$1295

<i>Straitline Canvas Ltd:</i>		<u>Length</u>	<u>Number</u>		
		<u>Wither to Tail</u>	10	50	100
Animac Cow Covers	1200 to 1500 mm		\$171	\$713	\$1330
Jute Cow Covers	1200 to 1500 mm		-	\$1215	\$2295

Horse Shoeing

Standard Hack	- Includes Shoes	\$50
Draught Horse	- Includes Shoes	\$150

2.4 CONTRACTING CHARGES

2.4.1 Hay Making

Some examples of contractors' charges are as follows:

Taranaki:

Mowing		\$65 to \$75 per hour
Tedding		\$65 per hour
Baling	Conventional	\$0.78 to \$0.90 per bale
	Large Round (12 bale equivalents)	\$8.00 per bale
	Large Round (15 bale equivalents)	\$8.50 to \$12.00 per bale

Waikato:

Conventional:	Mowing (2 ha per hour)	\$75.55 per hour
	Raking (4 ha per hour)	\$49.75 per hour
	Baling	\$0.80 per bale
	Pick Up	\$0.78 per bale

Round Bales:

10 bale equivalents	\$7.50 per bale
12 bale equivalents	\$9.40 per bale
15 bale equivalents	\$11.25 per bale

In the **Hawkes Bay**, average rates for baling conventional bales of meadow and lucerne hay are 85 cents per bale. Large round bales (6ft x 4 ft) are \$12.00 per bale (baling costs only, for both).

For a full contract, one contractor charges \$8.10 per hectare to mow, \$3.25 to rake, \$0.85 per bale to bale, and \$0.90 per bale to cart for conventional bales of meadow and lucerne hay.

Another Hawkes Bay contractor charges \$1.00 per conventional bale and \$11.00 per round bale (6ft x 4ft).

Canterbury:

The following are the charges of one Canterbury contractor.

Baling:

Conventional Bales		\$0.85 per bale
Round Bales	6 ft dia. 4 ft wide (18 bale equiv.)	\$10.50 per bale
Square Bales	Big 8 ft x 4 ft x 4 ft	\$19.50 per bale
	\$2 less each reduction by 1 ft	
	6 ft x 4 ft x 4 ft	\$15.50 per bale
Medium	33" x 33" x 6 ft	\$ 8.50 per bale
	\$1 less each reduction by 1 ft	

Another Canterbury contractor charges \$0.72 per conventional bale and \$12.00 per round bale (6ft x 4ft).

2.4.2 Silage

Charged in several different ways depending on contractor.

In **Canterbury**, one contractor charges \$300 per hour, this includes a silage chopper, two trucks and payload. On average, 35 tonnes of silage can be ensiled per hour. This depends on many factors such as bulk of crop, size of paddock and distance to stack. Cost per tonne (in stack) ranges from \$6.00 to \$7.00.

Another Canterbury contractor charges \$3.00 per cubic metre (four cubic metres to the tonne, hence \$12.00 per tonne).

In the **Waikato**, grass silage contracting rates vary around \$110 to \$130 per hour for a loader wagon and \$150 to \$200 per hour for a precision chop with tractors, harvesters and trucks. They harvest around 1.0 ha per hour (2.5 acres per hour). A reasonable cost is \$180 to \$210 per ha for grass silage plus covers. This includes rowing up, harvesting, stack or pit formation. When making maize silage, rates vary from \$150 to \$350 per hour for a fine chop harvester. Harvest rates are approximately 1.0 ha per hour depending on the distance travelled to the pit.

Big square baled silage 5ft x 4ft x 2ft	\$8.50 to \$10.50 per bale
To stack and cover and supply cover (Agtuf)	\$8.00 per bale
(Note: price also includes vacuuming of stack)	

Maize Silage costs:

Cultivation and planting (plough, cultivate, roll and plant)	\$250 per ha
Pre emergence spray - (Roustabout)	\$110 per ha
- (Atrazine)	\$21 per ha
Hybrid seed treatment	\$250 to \$275
Harvesting (consolidated in the pit)	\$200 to \$275

In the **Rotorua** region, contractors charge in the vicinity of \$195 per hectare. This includes mowing, chopping, carting and stacking.

Taranaki:

Silage Wrapping (Bale and Wrap) (10 bale equivalents)	\$17.50 per bale
--	------------------

2.4.3 Cultivation

Typical contractor's rates are as follows:

<i>Te Pirita Enterprises:</i> (Canterbury)	<u>Rate per hectare</u>
Ploughing	\$60.90 to \$65.50
Plough and roll	\$65.00 to \$68.00
Chisel plough	\$24.00
Chisel plough and harrow	\$27.50
Chisel plough and power harrow	\$31.50
Grub	\$23.00
Grub and harrow	\$25.70
Grub and power harrows	\$31.50
Power harrows	\$14.50
Direct drill	\$53.00
Minimum till drill	\$44.00
Conventional drill	\$34.40
Heavy roll (two rollers together)	\$19.40
Maxitill	\$15.10

One *Central North Island Contractor* charges the following for hill country work:

	<u>Price per Ha</u>
Giant Disc	\$100.00
Tandem Disc	\$55.00
Heavy Harrow	\$35.00
Drill Crop seed one way	\$55.00
Roll seed roll	\$55.00
Plough	\$110.00
Roll on Furrow	\$33.00
Light Harrow	\$22.00
Roll after Seeding	\$33.00
Direct Drill	\$60.00

Typical *Hawkes Bay* contracting rates:

160 HP Tractor	\$85 per hour	
Giant Discs	\$100 per hour	at 4 ha per hour
Cultivation	\$85 per hour	at 6 to 8 ha per hour
Ploughing	\$95 per hour	at 1.5 to 2 ha per hour
Drilling	\$50 per hour	at 2.8 ha per hour for cereals at 2 to 2.5 ha per hour for small seeds, peas

Typical *Taranaki* contract rates are as follows:

Drilling - single	\$56 to \$62 per hectare
- cross	\$100 per hectare
Rotary Hoeing	\$80 to \$85 per hour

2.4.4 Dipping

Sheep Dipping (Canterbury)

Fly: 3 to 5¢ per litre of water, depending on type of dip used.
N.B. Average medium woolled sheep, with four months of wool takes about 6 to 8 litres of water. E.g. Average overall cost of application

- with chemical	35¢ per head
- without chemical	18¢ per head.

Lice: cheaper chemical

- 2.0¢ per litre of water (average of 8 litres of water used)
- plus 18¢ per head.

2.4.5 Pregnancy Diagnosis / per Muscle and Fat Detection

Stockscan: (1994 prices)

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¢/triplets

Muscle and Fat Detection

Eye muscle depth only	\$2.00 per head
Eye muscle area (width x depth)	\$2.50 per head
Eye muscle depth and fat measure	\$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

2.4.6 Miscellaneous Contracting

Canterbury:

Gorse cutting	\$47 per hour
Shelter Belt Trimmers	\$98 per hour
Digging of offal pits trenches drains etc.	
- minimum of 8 hours work required	
- 12 tonne machines	\$70 per hour
- 4.5 tonne machines	\$60 per hour

Taranaki:

Effluent Spreading	\$78 per hour
Hedge Cutting	\$6.50 per chain

Gisborne: (1994)

20 tonne digger	\$75 to \$90 per machine hour
Bulldozer - Caterpillar D6-D7	\$90 to \$100 per machine hour

Farm tracking around \$4000 per kilometre depending on country, i.e. whether it is rock or dirt, steep or flat.

Dam Building e.g. size of dam 5688m³ of water, allowing 35,500 litres per day drawoff for 120 days with no recharge. Generally allow 20% loss due to seepage and evaporation; costs around \$6000 plus \$500 for permit from local council under the Resource Management Act.

Ditch digging with a 20 tonne digger costs around (for 1m x 1m) \$0.90 to \$1.50 per lineal metre.

2.4.7 Windrowing

One *Canterbury* contractor charges \$70 per hectare and can windrow approximately 2ha per hour.

In the *Hawkes Bay*, average rates for windrowing are \$80 per hour, at 1.0 to 1.2 ha per hour being harvested, with a 10 foot cut front.

2.4.8 Heading

The following are contract prices for one *Canterbury* contractor.

Wheat	\$124 to \$161 per ha
Barley	\$124 to \$161 per ha
Oats	\$124 to \$161 per ha
Peas and Lupins	\$136 to \$173 per ha
Grass Seed	\$124 to \$161 per ha
Clover and Linseed	\$185 per ha

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.

Another *Canterbury* contractor charges \$125 per hectare (any crop) plus cartage.

In the *Hawkes Bay* an average rate for combine harvesting is \$175 per ha, with about 10 tonnes per hour being harvested.

2.4.9 Oversowing

Fixed winged sowing of seed:

Cost varies with application rate, area and farm location. About \$9 per hectare at 30 kg per hectare (i.e. 30¢ per kg), with a minimum of 600 kg of seed sown.

NOTE: Fencing Contractor rates see *Section 2.19.1*

Shearing rates see *Section 2.3.14*

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 and locality, typical electricity costs (including domestic) are as follows:

Dairy Farms - \$20 to \$24 per cow per year. (South Island \$17 to \$22.)

Sheep and Beef Farms - Total costs \$1700 to \$2100 per year.

Irrigation - Electricity costs - see below, and also crop gross margins (*Section 3*) for examples.

Source: M.A.F. Farm Monitoring Report, 1994.

2.5.2 Regional Charges

Manawatu - Central Power:

Domestic Customers:

	Supply Charge (c/day)	General Supply (c/unit)	Controlled Supply (c/unit)	Night Only (c/unit)
Standard contract-	53.33	10.22	8.44	3.73
Economy 8 contract-	57.78	11.37	8.44	3.73 ¹

Non-Domestic:

	Supply Charge (c/day)	General Supply (c/unit)	Controlled Supply (c/unit)	Priority Controlled (c/unit)	Night Only (c/unit)
Standard contract-	53.33	11.11	8.44	11.11	3.73
Economy 8 contract-	57.78	12.44	8.44	-	3.73 ¹

Irrigation:

	Supply Charge (c/unit)	All Energy (c/unit)	Day Energy (c/unit)	Night Energy (c/unit)
80 % of use ² between 1/10 to 30/4 -	53.33	8.44	-	-
Two Rate Metering Installed-	57.78	-	12.44	3.73

¹ Continuous supply 11pm to 7am

² Available for pumping with at least 80% of energy use from 1 October to 30 April

Canterbury - Southpower Farm Tariffs.

(A) General Business

	Supply Charge (c/day)	Day Units (c/unit)	Interruptible Units	Night Units
BB1 Business unlimited	29.44	12.669	-	-
BN1 Nightsaver 11pm to 7 am	29.24	13.061	-	4.186
BD1 Daysaver 2 hr max.	29.24	12.669	9.542	-
BD2 Daysaver plus 4 hr max.	29.24	12.669	8.325	-
BO1 Open 24 hr	60.0	13.061	-	6.154
BW1 Weekender 9pm to 7am	60.0	13.061	-	8.547

(B) Irrigation Rates -

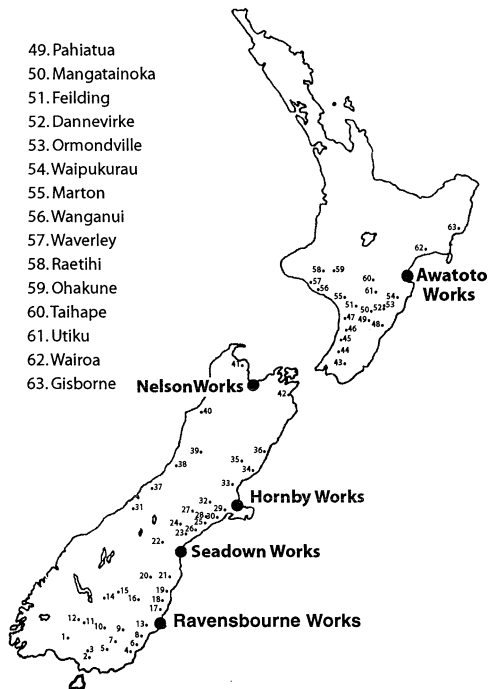
- (i) Standard: annual capacity charge 12.9c per day per kW, less possible rebate, plus first step energy charge (for first 500kW) of 6.66c per kW, plus second step at 4.61c per kW, plus third step at \$3.57.
- (ii) Alternative: annual capacity charge 6.5c per day per kW, less possible rebate, plus first step energy charge (for first 500kW) of 14.17c per kW, plus second step at 4.61c per kW.

2.5.3 Cost of Power Installation (1994 prices)

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.

YOU DON'T HAVE TO LOOK FAR TO FIND NEW ZEALAND'S TOP QUALITY FERTILISERS

- | | | |
|----------------|----------------|------------------|
| 1. Winton | 25. Ashburton | 49. Pahiatua |
| 2. Edendale | 26. Tinwald | 50. Mangatainoka |
| 3. McNab | 27. Methven | 51. Feilding |
| 4. Kaitangata | 28. Rakaia | 52. Dannevirke |
| 5. Clinton | 29. Dunsandel | 53. Ormondville |
| 6. Invertil | 30. Leeston | 54. Waipukurau |
| 7. Clydevale | 31. Whataroa | 55. Marton |
| 8. Milton | 32. Darfield | 56. Wanganui |
| 9. Lawrence | 33. Amberley | 57. Waverley |
| 10. Heriot | 34. Cheviot | 58. Raetihi |
| 11. Lumsden | 35. Waiau | 59. Ohakune |
| 12. Mossburn | 36. Kaikoura | 60. Taihape |
| 13. Outram | 37. Hokitika | 61. Utiku |
| 14. Alexandra | 38. Stillwater | 62. Wairoa |
| 15. Oturehua | 39. Ikamatua | 63. Gisborne |
| 16. Ranfurly | 40. Westport | |
| 17. Palmerston | 41. Takaka | |
| 18. Alma | 42. Blenheim | |
| 19. Oamaru | 43. Masterton | |
| 20. Kurow | 44. Manakau | |
| 21. Waimate | 45. Koputaroa | |
| 22. Fairlie | 46. Shannon | |
| 23. Hinds | 47. Himatangi | |
| 24. Mayfield | 48. Pongaroa | |



Ravensdown Fertiliser
Co-operative Limited

RAVENSDOWN 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 7179

2.6 FERTILISER AND LIME

2.6.1 Fertiliser

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.

					<u>Price per tonne bulk</u>		
<i>Supergro Fertilisers:</i>					<i>Awatoto</i>	<i>Hornby</i>	<i>R'bourne</i>
<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>		<i>(Napier)</i>	<i>(Chch)</i>	<i>(Dunedin)</i>
0	9	0	12	Superphosphate	\$172	\$177	\$169
0	10	0	8	Longlife Super	\$172	\$177	\$169
0	9	0	16	Longlife Sulphur Super	\$180	-	-
0	5	0	6	Di-Calcic Phos	\$119	-	-
0	13	0	1	N.C. Reactive Phosphate Rock	\$172	\$177	\$169
0	11	0	11	R.P.R. 11 S	\$180	-	\$175
0	11	0	12	R.P.R. 12 S	-	-	-
0	10	0	17	R.P.R. 17 S	\$182	-	\$177
0	9	0	12	Boron Super	\$203	\$206	\$200
0	9	0	12	Cobalt Super (1.5kg)	\$208	\$213	\$206
0	9	0	12	Molybdenum Super (250 grams)	\$178	\$183	\$176
0	9	0	12	Selenium Super	\$181	\$187	\$179
0	9	0	12	Copper Super	\$213	-	\$211
0	8	0	11	Magnesium Super	\$196	-	-
0	8	0	20	Sulphur Super (10% SO ₄)	\$180	\$184	\$176
0	7	0	28	Sulphur Super Extra	\$185	\$187	\$179
0	5	0	50	Maxi Sulphur Super	\$191	\$190	\$180
0	8	0	20	Molybdate Sulphur Super (500g)	-	\$188	-
0	7	0	28	Molybdate Sulphur Super Extra (250g)	-	\$188	\$183
0	8	8	10	15% Potash Super	\$201	\$207	\$199
0	6	15	8	30% Potash* Super	\$227	\$232	\$224
0	5	25	6	50% Potash** Super	\$262	\$267	\$257
0	7	10	16	20% Potash Sulphur Super	-	\$217	\$209
0	5	15	14	30% Potash Sulphur Super	-	\$234	\$225

* Sometimes known as Standard Lucerne Mix/Lucerne Maintenance (Canterbury)

** Sometimes known as High K Lucerne Mix (Canterbury)

				Price per tonne bulk			
				<i>Awatoto</i>	<i>Hornby</i>	<i>R'bourne</i>	
				<i>(Napier)</i>	<i>(Chch)</i>	<i>(Dunedin)</i>	
<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>				
<i>Special Mixtures</i>							
0	0	50	0	Potassium Chloride	\$369	\$374	\$362
<i>Cropmasters:</i>							
18	20	0	2	Cropmaster DAP	\$468	\$473	\$461
15	10	10	8	Cropmaster 15	\$399	\$404	\$393
20	10	0	13	Cropmaster 20	\$392	\$396	\$386
<i>Ammo-Phos:</i>							
11	22	0	1	Ammophos MAP	\$480	\$503	\$511
9	19	7	1	Ammophos/hycrop 9-19-7	\$464	\$484	-
8	15	15	1	Ammophos/hycrop 8-15-15	\$443	\$457	\$463
8	12	22	1	Ammophos/hycrop 8-10-22	\$420	-	-
8	14	13	1	Ammophos/hycrop (pea mix)	-	\$464	-
<i>Nitrophoska:</i>							
12	10	10	1	Nitrophoska 12-10-10 (bags)	\$599	\$740	\$746
12	5	14	3	Nitrophoska Blue TE (bags)	\$586	\$608	\$617
12	5	14	6	Nitrophoska Blue Extra (bags)	\$1018	\$1018	\$1018
<i>Nitrogen Fertilisers:</i>							
27	0	0	0	Calcium Ammonium Nitrate (bags)	\$410	\$474	\$483
21	0	0	24	Ammonium Sulphate (Std)	-	\$251	\$242
21	0	0	24	Ammonium Sulphate (Gran.)	\$309	\$311	\$302
46	0	0	0	Urea (N-Rich)	\$405	\$408	\$408
20	0	0	0	Liquid Nitrogen 20(Bulk/1000 litres)	\$320	-	-
<i>Horticultural Fertilisers (Bagged Price (\$/tonne))</i>							
<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>	<i>Mg</i>	<i>Napier</i>	<i>Nelson</i>	
16	4	16	4	0	Asparagus fertiliser	-	\$485
11	3	11	10	0	Berryfruit fertiliser	-	\$453
12	2	14	9	0	Kiwifruit fertiliser	-	\$503
15	0	18	8	0	Kiwifruit fertiliser No P	-	\$574
6	5	6	12	0	Market Garden Fertiliser	-	\$374
12	3	11	9	0	Orchard fertiliser	-	\$333
12	3	6	15	0	Orchard low K	-	\$324
5	11	16	5	0	Tobacco TFC 5.3 (Urea N)	-	\$653
0	0	0	23	0	Zinc Sulphate 23% Zn	\$942	-
0	0	0	13	10	Magnesium Sulphate	\$515	\$526
0	0	0	0	11	Dolomite	\$274	\$147
13	0	38	0	0	Potassium Nitrate	\$1243	\$1243
0	0	0	23	0	Ferrous Sulphate 19% Fe	\$497	-
0	0	0	13	0	Manganese Sulphate 32% Mn	\$928	-
0	0	0	0	55	Calcined Magnesite	\$424	\$481

An investment with growing returns



*A small investment in N-Rich will quickly
pay back big returns in improved
pasture performance.*

Get it from your local fertiliser merchant.

Petrochem



The High Performer

<i>Liquid Fertilisers:</i> (price per tonne, bulk)					<i>Nelson</i>
<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>		
20	0	0	0	Liquigro Liquid Nitrogen	\$341
7	2	4	1	Liquigro Foliar	\$684
6	1	6	1	Liquigro Trickle	\$412
3	0	6	0	Liquigro Tomato No.1	\$433
6	0	6	0	Liquigro Tomato No.2	\$537

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	25 kg per tonne	0.94 kg B per ha
Cobalt	Cobalt sulphate	1.0 kg per tonne	0.053kg Co per ha
Copper	Copper sulphate	25 kg per tonne	1.56 kg Cu per ha
Selenium	Sodium selenate prills	4 kg per tonne	0.01 kg Se per ha
Molybdenum	Sodium molybdate	0.25 kg per tonne	0.025kg Mo per ha
Magnesium	Calcined magnesite	80 kg per tonne	11 kg Mg per ha

Fernz Corporation Limited:

Note: For bagged product, add \$45 per tonne.

				<u>Price per tonne bulk</u>		
<i>Supergro Fertilisers</i>				<i>Whangarei</i>	<i>New Plymouth</i>	
N	P	K	S			
0	9	0	11	Superphosphate	\$180	\$175
0	7	0	8	Reverted Superphosphate	\$148	\$150
0	5	0	5	Super Lime 1/1	\$116	\$123
0	13	0	0	RPR - North Carolina	\$173	\$173
0	7	8	9	15 Potash Super	\$208	\$204
0	7	10	8	20 Potash Super	\$216	\$212
0	6	15	7	30 Potash Super	\$233	\$229
0	5	25	5	50 Potash Super	\$266	\$263
0	0	50	0	Muriate of Potash	\$365	\$365
21	0	0	24	Ammonium Sulphate	\$278	\$278
46	0	0	0	N-Rich 25	\$437	\$438
6	7	0	12	Nitroboost 25	\$204	
6	6	6	12	Crop	\$227	\$225
4	5	12	10	Dairy Pasture Mix	\$249	\$247
28	0	0	0	Calcium Ammonium Nitrate	\$515 (bagged)	

High Analysis Fertilisers

18	20	0	2	Di-Ammonium Phosphate	\$463	\$463
12	5	14	3	Nitrophoska Blue	\$628	\$628
12	10	10	1	Nitrophoska 12-10-10(bagged)	\$638	\$638
0	0	40	18	Sulphate of Potash (bagged)	\$705	\$705
0	0	0	99	Durasul Sulphur Prills	\$372	\$404

BOP Fertiliser Limited:

Price per tonne bulk

Supergro Phosphate Fertilisers:

N	P	K	S		<i>Mt Maunganui</i>
0	9	0	12	Superphosphate	\$167
0	15	0	7	Super Plus	\$273
0	13	0	0	Reactive Rock (N. Carolina)	\$166
0	12	0	7	Reactive Rock + S	\$170

Potash Fertilisers

0	8	8	10	15 % Potash Super	\$195
0	7	10	10	20% Potash Super	\$204
0	6	15	8	30% Potash Super	\$221
0	5	25	6	50% Potash Super	\$254
0	9	8	7	15% Potash RPR (N. Carolina)	\$195
0	9	15	0	30% Potash RPR (N. Carolina)	\$220
0	0	50	0	Muriate of Super	\$356
0	0	40	17	Sulphate of Potash (granular)	\$654

Sulphur Fertilisers

0	8	0	28	Sulphur Super 20	\$170
0	7	8	17	15% Potash Sulphur Super	\$199
0	6	15	14	30% Potash Sulphur Super	\$224
0	4	25	10	50% Potash Sulphur Super	\$258
0	0	0	100	Durasul	\$376
0	7	0	30	Sulphur Super 30	\$167

NPKS Pasture and Crop Fertilisers

5	4	5	12	Crop Fertilizer	\$207
5	7	0	14	Ammoniated Super	\$201
4	5	12	12	Pasture 4	\$237
6	6	6	13	Pasture 6	\$221

Nitrogen Fertilizers:

46	0	0	0	N-Rich Urea (bagged)	\$438
21	0	0	24	Sulphate of Ammonia	\$269
27	0	0	0	Calcium Ammonium Nitrate BASF	\$470

High Analysis Fertilizers: (Bagged)

12	5	14	3	Nitrophoska Blue	\$590
12	10	10	1	Nitrophoska 12:10:10	\$597
10	19	7	1	Ammophos/Hycrop	\$490
18	20	0	2	Di-Ammonium Phosphate	\$463

Price per tonne Bulk

Mt Maunganui

Magnesium Fertilizers:

N	P	K	S	Mg		
0	7	0	9	5	Serpentine Super	\$153
0	6	8	8	4	15% Potash Serpentine Super	\$184
0	5	15	6	4	30% Potash Serpentine Super	\$211
0	3	25	4	3	50% Potash Serpentine Super	\$248
0	8	0	11	5	Magphos	\$196
0	7	8	9	5	15% Potash Magphos	\$224
0	6	15	7	5	30% Potash Magphos	\$250
0	0	0	0	52	Magnox	\$435

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	25 kg	\$36.10
Copper Sulphate	12.5 kg	\$26.80
Selenium (Selcote Ultra)	1.5 kg	\$5.15
Magnox	50 kg	\$24.75
Cobalt Sulphate	0.5 kg	\$12.40
Molybdenum	150 g	\$5.15

Quinphos Fertilisers (NZ) Ltd:

<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>		<i>Mt Maunganui,</i>	<i>Ex</i>	<i>Ex</i>
<i>(avail.)</i>					<i>Te Poi</i>	<i>Hastings</i>	<i>Gisborne</i>
0	13	0	2	Quinphos RPR	\$179	\$171	\$181

Potash & R.P.R Blends

0	10	11	1	Potash RPR "15"	\$208	\$215	\$218
0	8	19	1	Potash RPR "30"	\$229	\$245	\$247

Sulphurised RPR

0	13	0	4	Clover King Low S	\$182	\$174	\$184
0	12	0	8	Clover King Med S	\$185	\$177	\$187
0	11	0	11	Clover King High S	\$186	\$178	\$188

Potash Plus RPR Sulphur Blends

0	10	10	3	Potash CK LS "15"	\$210	\$212	\$217
0	8	18	2	Potash CK LS "30"	\$232	\$241	\$245
0	9	10	6	Potash CK MS "15"	\$214	\$216	\$221
0	8	18	4	Potash CK MS "30"	\$237	\$245	\$250
0	9	9	9	Potash CK HS "15"	\$220	\$218	\$227
0	7	18	6	Potash CK HS "30"	\$239	\$246	\$252

						<i>Mt Maunganui,</i>	<i>Ex</i>	<i>Ex</i>
						<i>Te Poi</i>	<i>Hastings</i>	<i>Gisborne</i>
<i>Nitrolife</i>								
<i>(RPR/Nitrogen/Sulphur blends)</i>								
N	P	K	S					
6	9	0	9	Nitrolife "Six-Nine"		\$199	\$209	\$209
5	8	8	7	15% Potash NL "6/9"		\$238	\$238	\$253
4	6	15	6	30% Potash NL "6/9"		\$268	\$268	\$285
5	10	0	7	Nitrolife "Five-Ten"		\$199	\$205	\$203
4	9	8	6	15% Potash NL "5/10"		\$237	\$237	\$252
4	7	15	5	30% Potash NL "5/10"		\$267	\$267	\$284
4	9	0	13	Nitrolife SP "Hi-S"		\$199	\$203	\$203
3	8	8	11	15% Potash NL "Hi-S"		\$236	\$236	\$250
3	6	15	9	30% Potash NL "Hi-S"		\$267	\$267	\$284
<i>Superlife (quick and slow-release P and S)</i>								
0	16	0	7	Superlife "16 P"		\$289	\$289	\$298
0	11	12	5	Potash Superlife "15"		\$267	\$270	\$278
0	8	21	4	Potash Superlife "30"		\$282	\$293	\$293
0	13	0	13	Superlife Double 13		\$245	\$245	\$253
0	10	11	10	Potash SL D13 "15"		\$268	\$270	\$278
0	8	20	8	Potash SL D13 "30"		\$283	\$293	\$293
<i>Supermag (Superlife plus dolomite)</i>								
N	P	K	S	Mg				
<i>(avail.)</i>								
0	10	0	4	5	Supermag	\$225	\$234	\$244
0	9	8	3	4	15% Potash Supermag	\$262	\$272	\$282
0	7	15	3	3	30% Potash Supermag	\$303	\$309	\$319
<i>Miscellaneous</i>								
N	P	K	S	Mg				
0	0	0	0	12	Dolomite	\$166	\$166	\$176
0	0	0	0	53	Calcined Magnesite	\$480	\$480	\$490
0	0	50	0	0	Muriate of Potash (std)	\$360	\$365	\$375
0	0	0	25	0	Thermal Sulphur "25"	\$119	\$129	\$139
<i>Trace Elements</i>								
Cobalt						\$25.00	per	kg
Copper						\$2.00	per	kg
Molybdenum						\$2.90	per	100g
Selenium - Ultra						\$4.50	per	kg
- Standard						\$1.95	per	kg
Boron						\$1.40	per	kg
Zinc						\$1.75	per	kg

Citric Solubility

Quinphos RPR exceeds 30% citric solubility.

Southfert Co-op Ltd:***Supergro Fertilisers:***Price per tonne bulk

<i>N</i>	<i>P</i>	<i>K</i>	<i>S</i>		
0	9	0	11	Supergro superphosphate	\$169
0	7	0	9	Supergro Serpentine Reverted Super	\$156
0	7	0	9	Supergro Drilling Fertiliser (25% Serp.rock)	\$156
0	6	7	8	Supergro Turnip Fertiliser	\$188
0	7	7	9	Supergro 15% Potash Super	\$198
0	6	7	8	Supergro 15% Potash Serpentine Super	\$188
0	6	15	8	Supergro 30% Potash Super	\$223
0	8	0	22	Supergro 22% Sulphur Super	\$174
0	7	0	33	Supergro 33% Sulphur Super	\$175
0	4	0	50	Supergro 50% Sulphur Super	\$175
0	9	0	11	Supergro Selenium Super (2kg Se Ultra Prills)	\$181
0	9	0	11	Supergro Boron Super (50kg Fertiliser Borate)	\$228
0	7	0	9	Supergro Boron Serpentine Super (50kg Borate)	\$216
0	9	0	11	Supergro Molybdate Super (300 grams)	\$177
0	7	0	9	Supergro Molybdate Serpentine Super (300 grams)	\$164
0	9	0	11	Supergro Cobalt Super (1.5 kg Cobalt Sulphate)	\$211
0	7	0	9	Supergro Cobalt Serpentine Super (1.5 kg)	\$199
0	9	0	11	Supergro Copper Super (25 kg Copper Sulphate)	\$210
0	7	0	9	Supergro Copper Serpentine Super (25kg)	\$198
0	9	0	11	Supergro Magnesium Super (16kg Calcined Magnesite)	\$179
0	6	11	16	Southfert Lucerne (with boron)	\$255
0	15	0	6	Hi P	\$297

RPR Based Products:

0	14	0	1	Southfert RPR	\$188
0	10	0	17	Southfert Tussock (33% Sulphur Super/RPR blend)	\$184
0	11	0	11	Southfert Double Eleven (22% Sulphur Super/RPR blend)	\$184

Southcrop High Analysis:

					<u>Bagged</u>	<u>Bulk</u>
0	20	0	1	Southcrop Triple Super	\$457	\$415
18	20	0	2	Southcrop DAP	\$503	\$461
20	10	0	13	Southcrop Green	\$430	\$389
16	8	10	10	Southcrop Blue	\$422	\$381
0	10	25	0	Southcrop Black	\$427	\$385
13	15	12	0	Southcrop Pink	\$479	\$437
9	10	25	1	Southcrop Yellow	\$449	\$407
0	13	16	0	Southcrop Red	\$439	\$397
21	0	0	24	Southcrop Ammonium Sulphate	\$350	\$308
0	0	50	0	Southcrop Muriate of Potash	\$389	\$347
18	8	17	0	Southcrop Orchard	\$454	\$412
26	0	0	0	Southcrop CAN	\$666	-
0	0	40	17	Southcrop Sulphate of Potash	\$910	-
46	0	0	0	N Rich Urea (40 and 500 kg bags)	\$449	-
46	0	0	0	N Rich Urea	-	\$407

Trace Elements (available in standard packaging or added to Supergro range).

	<u>Price per Package</u>
Cobalt Sulphate (25 kg)	\$624.73
Copper Sulphate (25 kg)	\$44.49
Selcote extra selenium (25 kg) (0.5 kg per ha for 1 year)	\$86.59
Zinc Sulphate (50 kg)	\$50.61
Calcined Magnesite (25 kg)	\$13.68
Fertiliser Borate FB48 (25 kg)	\$34.10
Sulphate of Iron (50 kg)	\$39.75

Hortlink Marketing Ltd:

Blood and Bone	50 kg	\$41.33
Calcium Nitrate	50 kg	\$64.13
Di Ammonium Phosphate	50 kg	\$35.14

Liquid fertilisers:

N	P	K	S			
5	2	2	0	Alaska	5 litres	\$41.23
10	2	6	1	Nitrophoska foliar	5 litres	\$35.75
10	10	27	0	Phostrogen	3.9 kg	\$35.62
20	30	20	0	Schultz Instant	11.3 kg	\$90.03

Horticultural fertiliser-Osmocote:

N	K	P			
14	6	12	Standard (3 to 4 month release)	25 kg	\$150.44
18	2	9	Standard (12 to 14 month release)	25 kg	\$176.94
15	5	11	Plus (3 to 4 month release)	25 kg	\$172.78
15	4	9	Plus (12 to 14 month release)	25 kg	\$207.80

Glenpark Agrichem Limited:

Reaction Multi Blend Liquid Fertilisers

N	P	K	<u>200 litre drum</u>	
			<u>North Island</u>	<u>South Island</u>
9	5	6	\$700	\$730
5	4	12	\$700	\$730
14	4	4	\$700	\$730
6	9	5	\$870	\$900
Sulphur 13%			\$700	\$730

Yates N.Z. Ltd:

Soluble Fertilisers with Chelated Trace Elements (Mg, Mn, Fe, Co, B, Zn and Mo).

N	P	K			
38	1	2	Microfeed Foliar	17 kg	\$80.50
31	4	8	Microfeed 311	20 kg	\$97.75
16	3	27	Microfeed 214	20 kg	\$97.75
16	3	27	Thrive Fruit and Flower	8 kg	\$41.40
31	4	8	Thrive Foliar	8 kg	\$41.40

Chelated Trace Elements based on EDTA (powder)

Vytel B.M.X. (B-Z)	25 kg	\$321.00
Vytel Iron 13.2	25 kg	\$312.00

Slow Release Fertilisers

IBDU 31N Granular	25 kg	\$103.50
17 7.3 14 Multicote (111)	25 kg	\$86.25
24 3.4 13 Multicote (312)	25 kg	\$86.25
12 3 5 IBDU Woodace	15 kg	\$109.25

Bell Booth Group Ltd:

Maxicrop Triple	200 litres	\$1200.00
Maxicrop Flake "Seasure"	2.5 kg	\$96.88
Sul Spray Liquid Sulphur	20 litres	\$106.00

Supa Crop:

N	P	K	S		Per 10 kg bag
23	6	10	5	Pasture Plus	\$60.00
27	10	10	0	Crop Spray	\$62.50
9	20	12	0	Soluble Phosphate	\$74.00
6	6	30	0	Soluble Potassium	\$73.50
6	10	12	0	Lucerne Plus	\$73.00

Fertiliser Brokerage: (Tauranga) (1994 prices)

Ca	P	Fe	Mg		
30	1	13	3	Basic Slag (Ex Tauranga Mill)	\$55 per tonne
30	1	13	3	Basic Slag (Ex Glenbrook Mill)	\$35 per tonne

Tal.Gro: (1994 prices)

Bio-Gro Concentrate Liquid Fish - 209 litre drum	\$300
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2.6.2 Lime

McDonald's Lime Ltd: (Otorohanga) \$ per tonne
Lime \$15.00

Hatuma Lime Co. Ltd: (Feilding) \$ per tonne
Agricultural Lime \$16.50
Croplime Lime \$20.00
Limeflour - Bulk \$53.00
 - 50 kg Bags \$106.00
Calsul - Lime and Sulphur \$78.75
 (Freight charges to be added)

Whiterock Lime Co. Ltd: (North Canterbury) \$ per tonne
Cost per tonne ex quarry.
Limeblend \$14.00
Dried Lime \$15.00

Parkside Lime: (Oamaru) \$15.00

Austin Chalk Co Ltd: (Canterbury) \$ per tonne
Agricultural Lime \$15
Horticultural Lime \$140
Quick Lime - Hydrated \$180

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

Local Transport Authority Suggested Rates (Canterbury):

(all rates are \$ per tonne)

<u>Rate kg per ha (cwt/acre)</u>	Flat Grass	Hill Grass or Flat Cult.	Steep Hill or Med Cult.	Steep Cult.
125 (1)	\$71.70	\$86.21	\$108.00	\$126.00
250 (2)	\$35.41	\$44.28	\$53.19	\$61.93
375 (3)	\$25.16	\$31.44	\$37.71	\$43.38
500 (4)	\$18.32	\$20.63	\$27.54	\$32.05
1250 (10)	\$10.87	\$13.64	\$16.38	\$19.04
2500 (20)	\$6.44	\$8.09	\$9.69	\$11.15
3750 (30)	\$5.20	\$6.56	\$7.79	\$9.12
5000 (40)	\$3.91	\$4.91	\$5.36	\$6.35

Extras:

Unloading from railway trucks	\$5.24	per tonne
Mixing of Super and Lime	\$2.53	per hectare
Mixing of Basic Slag with Lime	\$4.56	per hectare
Sowing with grain or grass	\$6.46	per hectare

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 per tonne:

Application rate 200 kg per ha

Waikato	\$32.50 per tonne
Canterbury	\$45 to \$60 per tonne
South Otago	\$36 per tonne

Helicopters (NZ) Ltd:

All agricultural work done on an hourly rate.

Bell Jet Ranger	\$750.00 per hour
AS 350B Squirrel	\$975.00 per hour
SA 315B Lama	\$1025.00 per hour

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. An additional \$8.00 per sample is charged if Agriculture NZ staff carry out the sampling on the farm.

AgResearch Laboratory Analyses

Soil Test Profiles

Basic Soil Test - pH, Ca, P, K, Mg, Na,S	\$39.50
Soilless Media Test - NH ₄ , NO ₃ , pH, P, Ca, K, Mg, Na, Soluble Salts	\$52.50
Glasshouse Soil Test - pH, P, Ca, K, Mg, Na, Soluble Salts	\$46.50
(A 10% discount applies on 10 samples or more.)	

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 (To provide major and all trace element analyses relating to animal nutrition requirements)	\$66.00
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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)	\$54.00
Suspected Copper Deficiency - Cu,S,Fe,Mo (To provide the analytical data required to diagnose the potential copper deficiency of livestock)	\$30.00
Mixed Pasture Nutrition - N,P,S,Mg,Ca,K (To determine the major elements in mixed pasture relating to fertiliser nutrition)	\$30.00
Clover or Lucerne - N,P,S,Mg,Ca,K,Mn,Zn,Cu,Fe,B,Mo (To provide the major and trace elements analysis of legumes, their nutritional requirements and the requirements of the nitrogen fixing rhizobial bacteria)	\$54.00
Cereal Nutrition Profile - N,P,S,Mg,Ca,K,Mn,Zn,Cu,Fe (To determine the major and trace elements in cereals which are required for their nutrition and the production of high quality grain)	\$42.00

Horticulture

General Profile - N,P,S,Mg,Ca,Na,K,Mn,Zn,Cu,Fe,B (A complete major and trace element analysis suite relating to the nutrition of horticultural crops)	\$48.00
Vegetables - N,P,S,Mg,Ca,K,Mn,Zn,Cu,Fe,B,Mo (A complete analytical suite covering all major and trace elements relating to the nutrition of vegetable crops)	\$54.00
Kiwifruit - N,P,S,Mg,Ca,Na,K,Mn,Zn,Cu,Fe,B,Cl (A complete analytical suite covering all major and trace elements relating to the nutrition of kiwifruit)	\$57.00

Feed Quality Analysis Profiles:

Hay and Pasture (Analysis for crude protein, estimation of metabolisable energy and digestibility)	\$45.00
Meals and Compound Feeds (Analysis for fibre, crude protein, estimation of metabolisable energy and digestibility)	\$55.10
Silage (Analysis for pH, true dry matter, crude protein, fibre, free ammonia, estimation of metabolisable energy and digestibility)	\$99.10
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 Ltd: (Cambridge)

Soil:

Basic Test - pH, P, K, Ca, Mg, Na, Cation Exchange Capacity and Base Saturation % \$34.00

Additional Test - Organic Matter, Available Nitrogen, Soluble Salts, P-Retention, Reserve Mg, Sulphate-S, Total Nitrogen, Boron, Extractable Aluminium and Reserve Potassium. (Each test) \$10.00

Potting Mixes: pH, Conductivity, Nitrate-N, Ammoniacal-N, P, Ca, K, Mg, and Na \$38.00

Nutrient Solutions: pH, Nitrate-N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, and B. \$38.00

Plant Tissue: Basic Test including the following elements N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu and B \$57.00

Additional Tests - Mo, Co, Sn, SO₄, Cl, and Al. (price per element) \$10.00

Additional Test for I \$14.00

Feedstuffs: Dry Matter, Crude Protein, Crude Fibre \$75.00
Crude Fat or Oils

R.J.Hill Laboratories:

Water: pH, alkalinity, free carbon dioxide etc. \$65.00
Assessment of results \$20.00

Analytical Research Laboratories Ltd:

<i>Soils:</i>	<u>Basic Test:</u> pH, P, K, Ca, Mg, Na, CEC, Base saturation and Bulk density	\$35.00
	<u>Extra Tests:</u> Sulphate Sulphur, Phosphate Retention, Soluble Salts, Available Nitrogen	\$10.00ea
	Organic Sulphur, Organic Matter, Hot Water Soluble Boron	\$15.00ea
<i>Plant tissues:</i>	<u>Basic:</u> N, P, K, Ca, Mg, Na, S, Fe, Mn, Cu, Zn, B	\$55.00
	<u>Extra tests:</u> Co, Se, Mo,	\$10.00ea
	<u>Stock Health:</u> Mg, K, Na, S, Zn, Fe, Co, Se, Cu, Mo	\$55
<i>Waters:</i>	<u>Domestic:</u> pH, Fe, Mn, Zn, Ca, Mg, Na, K, Cl, B, Total Alkalinity, Total Hardness, Total Dissolved Solids, Free Carbon Dioxide, Bicarbonate, Conductivity Copper, Ammonia, Nitrate	\$85.00
	<u>Irrigation:</u> pH, Fe, Mn, Zn, Ca, Mg, Na, K, Cl, B, Total Alkalinity, Total Hardness, Total Dissolved Solids, Free Carbon Dioxide, Bicarbonate, Conductivity	\$75.00
	<u>Bacteria:</u> Coliform Bacilli, Faecal Coliforms	\$39.50

Pesticide Residue Analysis: Price on application.

Prices are based on less than ten samples. Discounts apply for greater than ten samples.

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:

January 1995 rates (\$ per tonne unless otherwise stated):

	<u>km</u>						
	10	30	40	50	60	70	80
General Goods	\$19.51	\$32.27	\$37.65	\$42.43	\$46.97	\$50.87	\$53.93
Bagged Lime and Fertiliser	\$16.21	\$24.83	\$28.44	\$31.87	\$35.27	\$38.51	\$49.41
Bulk Lime	\$6.81	\$11.00	\$12.89	\$14.65	\$16.44	\$17.84	\$19.25
Bulk Fertiliser	\$10.67	\$19.02	\$22.86	\$26.42	\$29.94	\$33.06	\$35.95
Wool (per bale)	\$3.90	\$5.96	\$6.92	\$7.94	\$8.84	\$9.66	\$10.20
Bulk Grain	\$11.25	\$18.51	\$21.65	\$24.33	\$26.82	\$29.13	\$31.32
Metal	\$12.02	\$24.28	\$29.40	\$34.91	\$40.35	\$45.94	\$51.43

(ii) Small Goods Rates:

Weight	up to 16km	17 to 32km	33 to 48km	49 to 64km	over 64km
up to 32 kg	\$6.67	\$6.67	\$6.67	\$6.67	\$6.67
102 kg	\$6.67	\$7.26	\$7.92	\$9.94	\$12.33
508 kg	\$14.80	\$19.84	\$24.73	\$29.62	\$33.74
965 kg	\$23.79	\$32.03	\$39.60	\$46.98	\$54.27

(iii) Stock (dollars per head):

	<u>km</u>						
	10	30	50	70	100	130	160
Store lambs	\$0.5	\$0.90	\$1.19	\$1.46	\$1.76	\$2.04	\$2.32
Prime lambs	\$0.61	\$1.02	\$1.34	\$1.60	\$1.95	\$2.30	\$2.65
Hoggets	\$0.66	\$1.10	\$1.47	\$1.78	\$2.18	\$2.52	\$2.88
Store sheep	\$0.72	\$1.18	\$1.59	\$1.95	\$2.39	\$2.74	\$3.10
Fat sheep	\$0.74	\$1.29	\$1.77	\$2.22	\$2.84	\$3.39	\$3.84
Weaner cattle	\$3.26	\$5.74	\$7.81	\$9.28	\$12.34	\$14.17	\$15.61
Yearlings	\$3.87	\$6.95	\$9.64	\$11.95	\$14.96	\$17.13	\$18.71
18 mth cattle	\$5.05	\$8.84	\$12.46	\$15.06	\$18.27	\$20.65	\$22.59
2 Year cattle	\$5.99	\$10.49	\$14.15	\$17.69	\$22.33	\$25.32	\$27.73
Prime cattle	\$6.53	\$11.74	\$16.35	\$20.40	\$25.65	\$29.14	\$31.61
Deer	-	-	\$5.00	\$7.00	\$9.00	\$10.00	\$11.25

(iv) Timber:

See *Section 2.22.3* for costs of transportation of timber.

2.7.2 Railway Transport Rates

Railfreight rates are normally dependent on the type of goods, the size of the consignment and the distance involved. The rates below are only guidelines and in some cases are subject to container or wagon minima.

Prices are generally for product moving from terminal to terminal.

<u>Christchurch to:</u>	Auckland \$ per tonne	Wellington \$ per tonne	Dunedin \$ per tonne
Grain - Bulk and Bagged	108	80	40
Bagged Flour and assoc. products	90	70	40
Chaff - Bagged	180	140	70
Fertiliser - Bulk and Bagged	140	80	45
Wool per Bale	35	25	9
General Goods - 25kg	25	25	25
- 100kg	58	30	30
- 500kg	190	90	60
- 1 tonne	180	80	40
<u>Hamilton to:</u>	Auckland \$ per tonne	Hastings \$ per tonne	Palmerston Nth \$ per tonne
Fertiliser - Bulk and Bagged	15	54	49
Sawn Timber *	15/m ³	70/m ³	55/m ³
General Goods - 25kg	25	25	25
- 100kg	25	25	27
- 500kg	34	67	93

* The sawn timber rate does not include loading and unloading charges.

2.7.3 Inter-Island Ferry Freight Rates

The freight rates listed below are those which are most relevant to farmers and farm contractors. The corporation has a full list of rates applying to the wide variety of goods carried.

Commercial vehicles (for example a truck weighing 3.5 tonne or more):	<u>\$/m*</u>
- Empty	70.00
- loaded with any class of livestock	98.98
- General goods	130.40
Machinery:	
Self propelled or towed machinery on wheels, and up to 2.6m width. (If over 2.6m, rate varies with width)	\$101.20

Note: m* are lane metres, i.e. the length taken up on the deck of the ferry.

Cost of Shifting Stock Inter-Island

Strait Shipping:

<u>Cattle</u>	<u>Per Head</u>	<u>Sheep</u>	<u>Per Head</u>
Dairy Cows	\$25	Ewes	\$3.00
Yearlings	\$18	Prime Lambs	\$2.50
Calves	\$10	Store Lambs	\$2.00
Ox	\$30		
Other Cattle	\$18 to \$50		

Road/Ferry Costs (calves)

South Island farmers have been paying about \$35 per head freight when transporting truckloads of calves from the Waikato to Ashburton and Timaru.

Cost of Shifting Containers Inter-Island

Strait Shipping:

From Nelson to Wellington \$850 per container

2.7.4 Air Freight Rates

Air New Zealand:

Overnight Domestic Rates quoted ex Christchurch

Minimum of 20 kg:

To Timaru, Oamaru, Westport, Hokitika, Greymouth	\$0.80/kg
To Rest of South Island	\$1.30/kg
To Wellington and Palmerston North	\$1.50/kg
To Rest of North Island	\$1.70/kg

ex Auckland

Minimum of 20 kg:

To Rotorua, Whangarei, Hamilton, Tauranga, Taupo	\$0.80/kg
To Rest of North Island	\$1.30/kg
To Christchurch	\$2.10/kg
To rest of South Island	\$2.30/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 (Auckland, Wellington and Christchurch only)	No Charge

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)

	<u>Price</u>
Wheat	
Milling: Monad, Sapphire, Brock, Norseman	\$620 to \$730 per tonne
Barley	
Malting: Regatta, Magnum	\$560 per tonne
Oats	
Milling: Omihi, White	\$444 to \$530 per tonne
Lupins Blue, White	\$500 to \$600 per tonne
Lentils Titore, Olympic, Invincible	\$1300 to \$1400 per tonne
Linseed	\$700 per tonne
Ryecorn	\$600 per tonne
Maize	
Various hybrids (treated)	\$200 to \$230 per 25kg
Greenfeed	\$960 per tonne
Peas	
FD Peas	\$320 per tonne
Feed Peas	\$302 per tonne
Field Peas	\$575 to \$615 per tonne
Proprietary Peas	\$637 per tonne

For *Watties* Process Crop Seed Prices: (see also vegetable seeds later)

Peas	\$1.17 to \$1.62 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	\$50.00 per kg
Baby Carrots	\$10.50 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*

	<u>Price per kg</u>
Ryegrass: Depending on cultivar and generation	\$1.60 to \$5.00
e.g. Nui	\$2.70
Concord	\$3.65
Moata	\$1.60 to \$2.00
Yatsyn	\$3.80 to \$4.55
Embassy Perennial Ryegrass	\$4.00
Exalta Italian Ryegrass	\$2.95
Banks	\$5.00
Cordura	\$4.00
Cocksfoot:	
Wana, Kara and Suborto (depending on generation)	\$5.65 to \$6.45
Prairie Grass: (Matua)	\$3.25 to \$3.40
Gala Grazing Brome:	\$4.70 to \$5.30
Maru Phalaris:	\$8.00 to \$9.70
Fescue: Range of Cultivars	\$6.00 to \$7.20
e.g. Au Triumph	\$6.30 to \$7.10
Timothy: Kahu (depending on generation)	\$6.00 to \$7.50
Crested Dogstail:	\$4.40
Browntop: (depending on cultivar)	\$4.75 to \$16.50
e.g. Egmont	\$13.30 to \$16.50
New Zealand	\$4.75 to \$8.50
Sefton	\$13.00
Clovers:	
White: (depending on cultivar and generation)	\$6.00 to \$12.30
e.g. Huia	\$6.35
Kopu	\$8.95 to \$10.80
Pitau	\$6.00
Tahora	\$6.90 (coated)
Red: (depending on cultivar and generation)	\$6.75 to \$12.00
e.g. Pawera	\$12.75
Hamua	\$6.75
Subterranean: Woogenallup	\$4.75 to \$5.50
Alsike	\$3.40 to \$4.75

Refer to *Section 2.8.2* for cost of coated seed

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 seed.

Note: For cost of coated seed see *Section 2.8.2*.

Rape:	Range of cultivars	\$1.55 to \$6.10 per kg
	e.g. Wairangi \$2.75, Winifred \$6.10, Rangi \$1.60 to \$3.10, Emerald Grant \$3.00	
Swedes:	Range of Cultivars	\$6.95 to \$7.55 per kg
	e.g. Doon Major \$6.95, Tina \$7.55	
Turnips:	Range of cultivars	\$2.95 to \$6.95 per kg
	e.g. Appin \$2.95, Greenglobe \$6.80 to \$6.95	
Kale:	Range of Cultivars	\$7.50 to \$12.20 per kg
	e.g. Gruner \$8.45 to \$9.80, Kestral \$8.60 to \$11.95, Giant \$7.50	
Forage Brassicas:		
	Wairoa	\$4.00 per kg
	Pasja	\$7.80 per kg
Puna Chicory:		\$14.35 to \$16.20 per kg
Maku Lotus:		\$16.90 to \$21.00 per kg
Sheeps Burnett:		\$6.50 per kg
Lucerne:	Range of cultivars	\$8.80 to \$18.50 per kg
	e.g. WL320 \$16.25 to \$18.50, Grassland Otaio \$12.00 to \$16.90, Wairau \$8.80	

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

Note: Seed coating can include insecticide/fungicide/N-fixing bacteria.

Coated Seed Ltd (Superstrike):

	<u>Seed/Coat ratio</u>	<u>\$ per kg</u>
Brassica	1:0.25	\$8.00 to 16.00
Lucerne	1:0.25	\$7.00 to 15.00
Ryegrass	no increase	\$3.50 to 7.00
Clovers	1:0.75	\$6.00 to 9.90

Seed Coating - Oversowing

Note: Seed coating can include lime coat/fungicide/N-fixing bacteria.

Coated Seed Ltd:

<u>Prillcote</u>	<u>Seed/Coat ratio</u>	<u>\$ per kg</u>
Ryegrass	1:1	\$1.25 to \$3.00
Cocksfoot	1:1	\$2.90 to \$3.75
Clovers	1:0.75	\$2.80 to \$8.00
Lotus	1:0.75	\$8.00 to \$20.00

See also advertisement at front of Manual

Seed Treatment - Drilling

Coated Seed Ltd

Grubbuster (specific grass grub control)	\$5.50 to \$9.50 (depending on type of seed)
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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*).

	<i>Standard</i>	<i>Hybrids</i>
Asparagus:		\$60 per 500g -
Beans: Broad	\$190 per 50 kg	-
Dwarf French Beans	\$290 to \$750 per 50 kg	-
Butter Beans	\$275 per 50kg	-
Runner Beans	\$730 per 50 kg	-
Beetroot:	\$25 to \$65 per 500g	\$45 per 500g
Broccoli:	\$90 per 500g	\$170 to \$660 per 500g
Brussel Sprouts:	\$100 per 500g	\$265 to \$320/10000 seeds
Cabbage:	\$30 to \$295 per 500g	\$300 to \$730 per 500g
Carrot:	\$32 to \$110 per 500g	\$240 to \$260 per 500g
Cauliflower:	\$125 to \$255 per 500g	\$1420 to \$1585 per 500g
Celery	\$180 per 250g	\$540 per 100g
Cress:	\$20 to \$60 per 500g	-
Cucumber:	\$45 to \$260 per 500g	\$80 to \$900 per 500g
Egg Plant:	\$30 per 100g	\$225 per 100g
Gherkin:	\$55 to \$260 per 500g	\$65 to \$345 per 500g
Leek:	\$68 to \$275 per 500g	-

		<i>Standard</i>	<i>Hybrids</i>
Lettuce:		\$85 to \$130 per 500g	-
Melon:	Rock	\$38 to \$45 per 500g	\$750 to \$960 per 500g
	Water	\$33 to \$80 per 500g	\$205 to \$685 per 500g
Onion:		\$48 to \$125 per 500g	\$460 to \$1295 per 500g
Parsley:		\$38 to \$150 per 500g	-
Parsnip:		\$58 to \$100 per 500g	\$100 to \$181 per 500g
Pea:		\$6 to \$13 per kg	-
Peppers:		\$110 to \$125 per 500g	\$175 to \$590 per 100g
Pumpkin:		\$40 to \$98 per 500g	\$125 to \$180 per 500g
Radish:		\$20 to \$50 per 500g	\$68 to \$120 per 500g
Silver Beet:		\$20 to \$25 per 500g	-
Spinach:		-	\$15 to \$45 per 500g
Spring Onions:		\$60 to \$355 per 500g	-
Squash:		\$30 to \$70 per 500g	\$120 to \$375 per 500g
Swedes:		\$20 per 500g	-
Sweet Corn:		-	\$17 to \$52 per 5kg
Tomato:		\$190 to \$348 per 500g	\$48 to \$370 per 25g
Turnip:		\$15 per 500g	\$260 to \$370 per 500g
Zucchini:		\$25 to \$120 per 500g	\$65 to \$285 per 500g

2.8.4 Flower Seeds/Bulbs

Seeds:

Note: There can be a wide range in cost of flower seeds, depending on the variety of seed. The following are indicative prices only.

Amaranthus	\$44 per 25g
Anemone	\$145 per 1000 seeds
Aster	\$114 per 100g
Carnation	\$68 per 100g
Chysanthemum	\$35 to \$46 per 10g
Dwarf Chysanthemum	\$37 to \$125 per g
Cornflower	\$25 per 100g
Cyclamen	\$10 to \$26 per 100 seeds
Dahlia	\$42 to \$98 per 100g
Delphinium	\$56 to \$98 per 25g
Freesia (Super Giant)	\$20 per 10g
Geranium	\$185 per 1000 seeds
Gerbera	\$35 per 10g
Gypsophila	\$25 per 100g
Hollyhock	\$35 per 100g
Lobelia	\$25 to \$42 per 25g

Lupin	\$75 to \$98 per 500g
Marigold (African)	\$6 to \$215 per 25g
(French)	\$6 to \$40 per 25g
Nasturtium	\$50 per 500g
Pansy	\$18 to \$155 per 5g
Petunia	\$69 to \$170 per g
Polyanthus	\$20 to \$22 per g
Sweet Pea	\$58 per 500g
Sweet William	\$48 to \$75 per 100g
Wallflower	\$54 per 100g
Zinnia	\$50 to \$94 per 10g

Bulbs:

Blue Mountain Gardens:

Iris (Juno)	\$120 per 100
Tulips	\$36 to \$48 per 100
Narcissus	\$32 to \$59 per 100
Crocus species	\$56 per 100

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. (N.B. Range of Cultivars)

Almonds	\$16.00	Apples:	\$7 to \$14.22
Apricots	\$14.22	Cherries	\$16.00
Citrus	\$14.22	Plums	\$7.30 to \$15.10
Quinces	\$14.22	Nectarines	\$15.50
Peaches	\$14.22 to \$15.55	Pears	\$7 to \$16.80
Figs	\$10.70 to \$11.55	Nashis	\$14.22
Persimmons	\$22.20	Tamarillos	\$5.33
Feijoas	\$6.00		

Cheddar Valley Walnuts:

Persimmon (Fuju, Jiro, Hirotonashi, Yoko) 50 to 75cm	\$22.22 each
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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).

Pecan	75 to 100cm	\$8.44 each
Chestnuts (Japanese and Spanish)	75 to 100cm	\$15.11 to \$21.33 each
	100 to 150cm	\$17.33 to \$25.33 each
Hazelnuts		\$8.00 to \$13.33 each
Walnuts	40 to 75cm	\$25.33 each
Hickory	10 to 25cm	\$5.33 each
Macadamias	25 to 50cm	\$15.11 each
Avocados	25 to 50cm	\$24.00 each

Allenton Nurseries: (Orchard and trade suppliers only)

Walnuts	\$6.80 per seedling
Chestnuts	\$5.15 per seedling, \$7.10 grafted
Hazelnuts (1 Year)	\$5.15 per seedling, \$7.10 stool grown

Vines:

Grapes - grafted	\$10.67 per plant
Kiwifruit - 1 year grafted	from \$3.90 (male and female plant)
- 2 year grafted	from \$5.90 (male and female plant)

Berryfruit: 1994

(Prices are per plant in bulk lots of 100 or more, unless otherwise stated)

Strawberry Runner	\$125 to \$170 per 1000 (depending on variety)
Blackcurrant	10¢ to 30¢ per cutting (depending on variety)
Gooseberries	\$3.00 to \$4.00 per plant
Boysenberry	\$1.50 to \$2.50 per plant (depending on the size of the order)
Blueberries	\$1.00 to \$4.00 per plant (depending on plant size)
Raspberry	\$1.00 to \$2.50 per plant (depending on plant type)
Brambles	\$2.00 to \$2.50 per plant

2.8.6 Planting/Propagating Materials

Athco Industries: (Auckland)

Planterbags:

64 x 64 x 150mm	\$24.50 per 1000
120 x 120 x 460mm	\$109.07 per 1000
300 x 300 x 600mm	\$993.65 per 1000
Plastic labels 125 mm	\$30.00 per 1000

Seedling Punnets	15cm x 10cm 4 or 6 cavity	\$100.70 per 1000
Propagation Trays	430 x 290 x 50mm	\$3.95 each
Propagation Tubes	55 x 80mm, to 70 x 90mm	\$60 to \$90 per 1000
Cell Trays	5ml, round, 273 cells per tray	\$3.65
	16ml, square, 198 cells per tray	\$4.35
	45ml, round, 60 cells per tray	\$3.65

Permathene Plastics:

Mulch Film	600mm to 900mm x 500m x 30 μ	\$35.40 to \$53.10
	1200mm to 1800mm x 500m x 30 μ	\$70.80 to \$121.20
Hydroponic Film Co-extruded Black/White -	Gully film 600mm x 200m x 150 μ	\$96 per roll

Hortlink Marketing:

Planter Bags	64 x 64 x 150mm, to 140 x 140 x 289mm (range)	\$25.06 to \$111 per 1000
	120 x 120 x 480mm, to 230 x 230 x 460mm (range)	\$105 to \$302 per 1000
	300 x 300 x 600mm	\$1000.41 per 1000
Polythene Film:	Black 125 μ x 1m x 100m, to 250 μ x 2m x 50m (range)	\$27.50 to \$54.22
	Clear 125 μ x 1m x 100m	\$41.00
Seedling Punnets	6" x 3" to 9" x 3" Deep	\$77 to \$120 per 1000
Seedling Pottles		\$107 per 1000
Green Pots	7.5cm to 20cm	\$120 to \$862 per 1000
Heater Pad	0.5 x 0.4m, to 2.0 x 0.5m	\$66 to \$217
Mini Heater Pad		\$49.95
Mist Unit (240 volt with sensor)		\$424.00
Display/Plastic Plant Labels		\$36.50 to \$54.15 per 1000
Weedmat	0.91 x 50m, to 1.83 x 50m	\$54 to \$108

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

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 - \$1000 to \$2000 per year.

Arable Farms - see examples in Section 3, Gross Margins for crops.

Orchards - see examples in Section 3, Gross Margins for fruit.

Source: M.A.F. Farm Monitoring Report, 1994.

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 and Plant Protection Manual" (obtainable from WHAM, P.O.Box 12-342, Wellington or The Bookshop, Lincoln University).

<i>Trade Name</i>	<i>Active Ingredient (%)</i>	<i>Company</i>	<i>Unit Size</i>	<i>Retail Price</i>
2,4-D amine	2,4-D amine (40)	DE	20 litre	\$185
2,4-D Ester 80	2,4-D butyl ester (72)	N	20 litre	\$190
2,4-DB	2,4-DB (40)	DE	20 litre	\$235
Alachlor	alachlor (48)	S	20 litre	\$276
Activated Amitrole	amitrole (40), ammonium-thiocyanate (10)	N	20 litre	\$333
Amitrole	amitrole (40)	Y	20 litre	\$287
Asulox	asulam (40)	RP	20 litre	\$524
Atradex BW	atrazine (90)	I	10 kg	\$134
Atrazine Flowable	atrazine (50)	N	20 litre	\$221
Avadex BW	triallate (40)	M	20 litre	\$330
Avenge 640	difenzoquat (64)	Y	25 kg	\$1514
Axall	bromoxynil (7.5) ioxynil (7.5)	RP	20 litre	\$363
Banvel 200	dicamba(20)	N	5 litre	\$147
Banvine	2,4-D (20)	DE	1 litre	\$35
Basagran	bentazone (48)	B	20 litre	\$689
Betanal AM11	Phenmedipham (8.3) desmedipham (8.3)	DE	5 litre	\$269
Bladex	cyanazine (50)	S	20 litre	\$352
Brasoran WP	aziprotryne (50)	C	2 kg	\$195
Bromoxynil			5 litre	\$165
Buctril M	bromoxynil (20) MCPA (20)	RP	20 litre	\$375
Buster	ammonium phopshate (20)	B	5 litre	\$138
Caragard FW	terbuthylazine (25) terbumeton (25)	C	5 litre	\$131
Carbetamex	carbetamide (70)	RP	5 kg	\$149
Centurion 240EC	clethodim (24)	N	5 litre	\$656
Chloro-IPC	chlpropham (40)	Y	20 litre	\$541
Cohort	linuron (27.9), diuron (17.6)	B	10 litre	\$333
Combine	bromoxynil (20) ioxynil (20)	RP	20 litre	\$756
Commando	L-flamprop isopropyl(20)	S	20 litre	\$531
Cougar 20G	diflufencarn (10) isoproturon (50)	RP	5 litre	\$185
Dacthal W75	chlorthal dimethyl (75)	Y	10 kg	\$414
Dicamba 20	dicamba (20)	I	20 litre	\$432
Dual 960 EC	metolachlar (96)	C	200 litre	\$4980
Duplosan Super	dichlorprop (60)	B	10 litre	\$185
Duplosan KV	mecroprop-P (60)	B	10 litre	\$244
Escort 60DF	metasulfuron (60)	D	1 kg	\$934
Frontier	dimethanamid (90)	Y	2 litre	\$133
Fodderkleen	chlornitrofen (20) picloram (1.25)	DE	20 litre	\$324

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Foresite	oxadiazon (40)	RP	4 litre	\$268
Fusilade	fluazifop-butyl (25)	I	5 Kg	\$401
Gallant	haloxyfop (10)	DE	20 litre	\$751
Galtak	benazolin-ethyl	N	5 litre	\$117
Gardoprim FW	terbuthylazine (50)	C	20 litre	\$240
Gesagard WP	prometryn (50)	C	2 kg	\$93
Gesamil 50WP	propazine (50)	C	2 kg	\$93
Gesaprim 500FW	atrazine (50)	C	5 litre	\$38
Gesatop 500FW	simazine (50)	C	5 litre	\$52
Glean 75DF	chlorsulfuron (75)	D	200 g	\$270
Glean Twin	chlorsuluron/bromoxynil	D	200 g	\$356
Glyphosate	glyphosate (36)	N	20 litre	\$259
Goal	oxyflurofen (24)	R	5 litre	\$240
Gramoxone	paraquat (20)	I	20 litre	\$355
Granstar	methylbenzoate complex (75)	D	200 g	\$216
Grazon	trichlopyr (60)	DE	20 litre	\$955
Hi-Ester 2,4-D	2,4-D butyl ester (72)	DE	20 litre	\$213
Hyvar X	bromacil (80)	D	2.5 kg	\$182
Hyvar XL	bromacil (22)	CF	2.5 kg	\$175
Karmex	Diuron (80)	D	2.5 kg	\$58
Kerb Flo	propyzamide (40)	R	5 litre	\$365
Krovar	bromacil(40)& diuron(40)	D	2.5 kg	\$104
Lasso M/Tech	alachlor (48)	M	10 litre	\$160
Lexone 75 DF	metribuzin (75)	D	2.5 kg	\$263
Linuron DF	linuron (50)	D	2.5 kg	\$90
MCPA	MCPA (37.5)	N	20 litre	\$116
MCPB	MCPB (40)	N	20 litre	\$180
Mostox	dichlorphen (43.2)	R	5 litre	\$128
Nortron	ethofumesate (20)	Y	10 litre	\$1119
Paraquat - see Gramoxone				
Permazol SDA	dalapon (37)			
	amitrole (25)			
	sodium thiocyanate (4.5)	RP	20 kg	\$298
Preeglone E	diquat (6)			
	paraquat (12)	I	20 litre	\$267
Prefix D	chlorthiamid (7.5)			
	dichlobenil (6.75)	S	5 kg	\$81
Proturf	dichlorprop (27.4),			
	ioxynil (5.4) bromoxynil (36),			
	MCPA (11.9)	RP	5 litre	\$86
Puma S	fenoxaprop-p-ethyl (7.5)	B	5 litre	\$467
Pyramin FL	chloridazon(43)	B	1 Kg	\$54
Ramrod FLO	propachlor (48)	M	9.47 litre	\$212
Reglone	diquat (20)	I	20 litre	\$382
Ronstar SG	oxadiazon (2.0)			
	simazine (0.5)	RP	20 kg	\$163

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Roundup	glyphosate (36)	M	20 litre	\$270
Salvo	dicamba (1.7), dichlorprop (23.3)			
	MCPA (10.7), mecoprop (21)	S	20 litre	\$281
SDA	simazine, dalapon, amitrole	DE	15 kg	\$236
Selecta 4CPA	4-CPA (40)	DE	5 litre	\$86
Semeron	desmetryn (25)	C	2 kg	\$170
Sencor 70 DF	metribuzin (70)	BY	2 kg	\$217
Simatox 900WG	simazine (50)	I	10 kg	\$149
Sinbar	terbacil (80)	D	1 kg	\$96
Spraygrow	diquat (2.5)			
	paraquat (15)	I	20 litre	\$350
Stomp 330E	pendimethalin (33)	Y	20 litre	\$529
Surflan FLO	oryzalin (75)	DE	5 litre	\$238
Targa	quizalofop-p-ethyl (50)	S	5 litre	\$218
Topogard FW	terbutryn (35)			
	terbuthylazine (15)	C	5 litre	\$201
Tordon Brush-killer NF	picloram (10)			
	triclopyr (30)	DE	20 litre	\$1218
Tordon 2G	picloram (2)	DE	25 kg	\$282
Tordon 50D	picloram (2), 2,4-D (20)	DE	20 litre	\$456
Torpedo	diquat (10)	I	20 litre	\$426
Totril	ioxynil (22.5)	RP	20 litre	\$818
Touchdown	glyphosate-trimesium (48)	I	20 litre	\$259
Treflan	trifluralin (40)	DE	20 litre	\$280
Tribunil WP	methabenzthiazuron (70)	BY	2 kg	\$150
Triflur 40	trifluralin (40)	N	5 litre	\$80
Trimec	dicamba (1.87) plus			
	MCPA (15) plus			
	mecoprop (60)	I	20 litre	\$266
Tropotox Plus	MCPA (2.5), MCPB (37.5)	RP	20 litre	\$190
Velpar 20G	hexazinone (20)	D	20 kg	\$653
Velpar 90	hexazinone (90)	D	25 kg	\$2344
Velpar L	hexazinone (25)	D	20 litre	\$690
Versatill	clopyralid (30)	DE	20 litre	\$1346
Vorox TDA	terbuthylazine (40)			
	amitrole (12.5), dalapon (26)	C	20 kg	\$350
Weedazol 4L	amitrole (40)			
	ammonium thiocyanate (10)	RP	20 litre	\$204

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 and Plant Protection Manual" (obtainable from WHAM, P.O.Box 12-342, Wellington or The Bookshop, Lincoln University).

<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	25 kg	\$217
Actellic EC	pirimiphos-methyl (50)	I	1 litre	\$49
Actellic SG	pirimiphos-methyl (20)	I	90 g	\$16
Apollo 50 SC	clofentezine (50)	Y	2 litre	\$621
Applaud 25W	buprofezin (25)	DE	250 g	\$39
Attack	pirimiphos (47.5)	I	5 litre	\$164
Averte 525 EC	diazinon(50) permethrin(25)	C	10 litre	\$285
Azinphos				
-methyl 50W	azinphos-methyl (50)	N	12 kg	\$467
Basudin 50WP	diazinon (50)	C	2 kg	\$39
Basudin 800EC	diazinon (80)	C	5 litre	\$148
Baythroid 5 EC	cyfluthin (5)	BY	5 litre	\$252
Carbaryl 50F	carbaryl (50)	N	10 litre	\$171
Carbaryl 80W	carbaryl (80)	N	15 kg	\$383
Caterkill	fenitrothion (60)	N	5 litre	\$102
Chlorpyrifos				
48EC	chlorpyrifos (48)	N	20 litre	\$929
Chlorpyrifos				
48EC	chlorpyrifos (48)	N	5 litre	\$249
Counter	terbufos (20)	S	20 kg	\$277
Decis EC	deltamethrin (2.5)	N	5 litre	\$265
Diazinon 20G	diazinon (20)	N	15 kg	\$174
Diazinon 80EC	diazinon (80)	N	20 litre	\$581
Dimilin 25W	diflubenzuron (25)	N	500 g	\$127
Dipel 2 X	bacillus thuringiensis	N	500 g	\$58
Drisan	isazophos (10)	BY	20 kg	\$259
Ekaton	thiomton (25)	N	5 litre	\$120
Folidol	parathion-methyl (60)	BY	1 litre	\$44
Folimat	omethoate (58)	BY	5 litre	\$372
Gesapon 20G	diazinon (20)	C	22 kg	\$263
Gesapon 80EC	diazinon (80)	C	5 litre	\$152
Gusathion M35	azinphos methyl (25)			
	captan (53)	BY	16 kg	\$441
Hallmark 5EC	esfenvalerate (5)	S	1 litre	\$74
Imidan	phosmet (75)	I	3 kg	\$66
Karate	cyhalothin (5)	I	5 litre	\$425
Kelthane 35	dicofol (35)	R	2.5 kg	\$74
Lannate L	methomyl (20)	D	5 litre	\$141
Lime Sulphur	sulphur (15)	F	20 litre	\$64

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Lorsban 40EC	chlorpyrifos (40)	DE	5 litre	\$236
Lorsban 50WP	chlorpyrifos (50)	DE	4 kg	\$203
Maldison 50 EC	maldison (50)	Y	5 litre	\$60
Malix 35 EC	endosulfan (35.5)	B	5 litre	\$97
Mavrik aquaflo	fluvalinate (24)	Y	1 litre	\$186
Mesurool bait	methiocarb	BY	10 kg	\$144
Mesurool Snail	methiocarb (2)	BY	5 kg	\$81
Metasystox	demeto-s-methyl (25)	BY	5 litre	\$129
Miral 10G	iazophos (10)	C	20 kg	\$266
Monitor	methamidophos (60)	B	20 litre	\$818
Nemacur 400 EC	fenamiphos (40)	BY	5 litre	\$275
Nissorun WP	hexythiozox (10)	RP	1 kg	\$200
Nuvan 1000 EC	dichlorvos (100)	C	1 litre	\$37
Omite 30W	propargite (30)	N	2 kg	\$78
Orthene 75	acephate (75)	N	10 kg	\$506
Pentac Aquaflo	dienochlor (48)	Y	1 litre	\$213
Perfekthion S	dimethoate (50)	B	10 litre	\$207
Pheromone traps		PM	2 kits	\$89
Phorate 20G	phorate (20)	I	15 kg	\$116
Pirimor 500	pirimicarb (50)	I	500 g	\$35
Ripcord 20 EC	cypermethrin (20)	S	275 mls	\$52
Rogor 20W	dimethoate (20)	Y	1.5 kg	\$34
Rogor E	dimethoate (40)	Y	20 litre	\$323
Safers Insecticide	-	W	4 litre	\$53
Saprene	triforine (18.3) plus acephate (11.4)	N	1 litre	\$35
Sevin FLO	carbaryl (80)	RP	10 litre	\$179
Sevin WP	carbaryl (80)	RP	15 kg	\$433
Supracide 400	methidathion (40)	C	5 litre	\$219
Tamaron	methamidophos (60)	BY	25 litre	\$810
Thimet 20G	phorate (20)	N	15 kg	\$124
Thiodan 35EC	endosulfan (35.5)	N	5 litre	\$102
Tokuthion EC	prothiofos (50)	BY	5 litre	\$462
Verthion EC	fenitrothion (60)	S	20 litre	\$486
Vydate L	oxamyl (24)	D	3.8 litre	\$155

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	\$57
Agrimycin 17	streptomycin (17)	P	600 g	\$47
Aliette	fosetyl-aluminium (52.8)	RP	1 kg	\$74
Aliette Super	fosetyl-aluminium (52.8) thiabendazole (12.9) thiram (17.21)	RP	2.9 kg	\$252

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Alto	cyproconazole	N	5 litre	\$616
Antrocol 70 WP	propineb (70)	BY	25 kg	\$297
Bavistan FL	carbendazim (50)	B	5 litre	\$354
Baycor 50 WP	triazole (50)	BY	2 kg	\$189
Bayleton 5 DF	triazole (5)	BY	2 kg	\$104
Baytan IM	triadimenol (15)	BY	10 kg	\$965
Benlate 50DF	benomyl (50)	D	1 kg	\$76
Beret Z 24 WS	fenpiconil (20) imazalil (0.4)	C	1 kg	\$102
Bravo 500F	chlorothalonil (50)	Y	2 litre	\$80
Calixin	tridemorph (75)	B	5 litre	\$270
Captan - see Orthocide				
Cereous	triadimenol (25)	BY	5 litre	\$480
Champion	cupric hydroxide (50)	Y	10 kg	\$107
Copper				
Oxichloride 5	copper oxichloride (50)	N	25 kg	\$200
Croppers Potato Dust			25 kg	\$165
Dacanil (Bravo)	-		20 litre	\$493
Dithane M45	mancozeb (80)	R	25 kg	\$343
Dodine 400	dodine (40)	N	10 litre	\$183
Euparen DF	dichlofluanid (50)	BY	2 kg	\$138
Folicur	terbuconazole (25)	BY	5 litre	\$391
Fongarid 25 WP	furalaxyl (25)	Y	500 g	\$118
Galben	benalaxyl (8)			
	mancozeb (65)	I	25 kg	\$828
Gusathion M35	azinphos methyl (25)			
	captan (53)	BY	15 kg	\$539
Karathane	dinocap (18.5)	R	20 kg	\$557
Kocide 606	cupric hydroxide (50)	S	10 litre	\$115
Lime Sulphur	sulphur (15)	F	20 litre	\$64
Mancozeb 80W	mancozeb (80)	N	2 kg	\$26
Merit 500EC	propiconazole (12.5)			
	fenpropimorph (37.5)	C	5 litre	\$282
Monceren	pencycuron (12.5)	BY	20 kg	\$570
Nimrod	bupirimate (25)	I	10 kg	\$392
Nustar	flusilazol (20)	D	1.6 kg	\$488
Orthocide				
10 Dust	captan (10)	N	25 kg	\$178
Orthocide 65	captan (65)	N	25 kg	\$713
Orthocide 80 W	captan (80)	N	12 kg	\$187
Pallinal	metiram (60)			
	nitrothal-isopropyl (12.5)	B	20 kg	\$309
Pallitop	metiram (3.2)			
	nitrothal-isopropyl (48)	B	1 kg	\$30
Polyram DF	metiram (80)	B	25 kg	\$292
Previcur N	propamocarb (60)	Y	1 litre	\$155
Ridomil MZ WP	metalaxyl (8) mancozeb (64)	C	20 kg	\$718
Ridomil 10G	metalaxyl (10)	C	2.5 kg	\$90
Rizolex	tolclofos methyl(10)	S	25 kg	\$530

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Ronilan FL	vinclozolin (50)	B	5 litre	\$444
Rovral WP	iprodione (50)	RP	1 kg	\$103
Rovral Flo	iprodione (25)	RP	5 litre	\$221
Rubigan 12EC	fenarimol (12)	RP	5 litre	\$481
Rubigan FLO	fenarimol (12)	RP	1 litre	\$92
Saprene	triforine (3.9)			
	acephate (4.5)	N	1 litre	\$30
Saprol	triforine (19)	S	2 litre	\$101
Shirlan	fluazinam (50)	I	5 litre	\$609
Sportak 45 EC	prochloraz (45)	N	5 litre	\$259
Sulflo	sulphur (80)	Y	15 litre	\$66
Sumisalex FL	procymidane (25)	I	20 litre	\$920
Syllit Plus	dodine (40)	RP	10 litre	\$203
Thiovit 80W	sulphur (80)	N	25 kg	\$118
Thiram 40 F	thiram (40)	N	10 litre	\$77
Thiram WDG	thiram (80)	Y	2 kg	\$32
Thiram 80	thiram (80)	N	20 kg	\$230
Tilt 625 Gel	prop-isoconzole	C	100 grams	\$253
Topas MZ62WP	penconazole (1.7), mancozeb (60)	C	3 kg	\$73
Topas 10 WP	penconazole (10)	C	0.5 kg	\$49
Topas 100 EC	penconazole (10)	C	1 litre	\$101
Topsin M-4A	thiophanate-methyl (40)	DE	5 litre	\$196
Vincit	flutriafol (5)			
	imazalil sulphate (5)	I	5 kg	\$373
Vitaflo 200	carboxin (20), thiram (20)	N	20 litre	\$492

2.9.6 Rabbit/Rodent Control

Non toxic Feed Pellets		PM	25 kg	\$35.55
Pindone Ag-Tech Rabbit Pellets		PM	25 kg	\$64.00
Pindone RS5 Rabbit Pellets		PM	25 kg	\$72.00
Pindone Double Strength Possum Pellets		PM	25 kg	\$72.89
Storm	flocoumafen (0.005)	S	10 kg	\$116
Talon 20 P	brodifacoum (2)	I	10 kg	\$43
Talon 50 WB	brodifacoum (5)	I	12.5 kg	\$102

2.9.7 Bird Repellants

Hotfoot Gel	polybutene (93.5)	ST	0.3 kg	\$24
Hotfoot		PM	0.3 kg	\$22
Birdscare humming tape (30m roll)		PM		\$11.50/30m roll

2.9.8 Bactericides

Streptomycin	streptomycin (17)	K	1.2 kg	\$72
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2.9.9 Wetting, Spreading and Marking Agents

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>
Citowett sticker/spread	alkylaryl polyglycol ether	B	5 litre	\$50
Contact	non ionic surfactant	I	20 litre	\$196
Delfoam	anti-drift agent	Y	5 litre	\$54
Keymark	foam"blob"marker conc.	K	5 litre	\$62
Landmark	spray marker dye	N	20 litre	\$778
Millermark	foam"blob"marker conc.	K	4 litre	\$98

2.9.10 Penetrants

Pulse (for Roundup herbicide)		M	5 litre	\$151
Triton X45		I	20 litre	\$284

2.9.11 Growth Regulators

Cultar	paclobutrazol (25)	I	1 litre	\$322
Cycocel 750	chlomequat (75)	B	10 litre	\$134
Ethrel	chlorthethon (4.8)	RP	20 litre	\$885
Promalin	gibberellic acid (1.9)	N	500 ml	\$240
Terpal	mepiquat chloride (30.5) chlorthethon (15.5)	B	5 litre	\$201

2.9.12 Sprout Inhibitors

Propham	propham (40)	A	25 kg	\$126
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2.9.13 Oil Sprays

D-C Trate	Int. spraying oil	B	20 litre	\$93
Sunspray	oils-mineral- insecticidal (97)	S S	5 litre 20 litre	\$26 \$88

2.9.14 Soil Fumigants

Basamid G	dazomet (99)	B	20 kg	\$348
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2.9.15 Root Forming Hormones

Clonex	beta-indolyl butyric acid	Y	500 ml	\$36
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2.9.16 Spraying Costs - Aerial and Ground

Aerial Spraying

Canterbury:

Fixed wing spraying of crops: Cost varies according to area and farm location. About \$30 to \$35 per hectare, depending on distance to ferry.

Helicopter spraying of crops: Costs vary according to area and location. Cost to spray is around \$20 per hectare (at 50 to 70 litres per ha), but the cost of travelling to and from the site may vary from \$70 per job, for a close location, through to \$500 for a job about 70 km distant.

Helicopter spraying of brushweed: Around \$70 to \$105 per hectare (at 200 to 400 litres per ha).

Waikato:

Cost varies according to application rate, area, farm location and distance to ferry. Some examples are:

Thistles	28 litres per ha	\$7.15 per ha
Pine Trees	5 litres per ha	\$2.75 per ha
Potatoes	50 litres per ha	\$14 per ha

Another helicopter company quoted:

Gorse	400 to 500 litres per ha	\$225 per ha
Gorse (low water)		\$100 per ha
Ragwort	100 litres per ha	\$35 per ha
Thistle/Ringfern	50 litres per ha	\$20 per ha

South Island

Aerial spraying for spot work and large blocks may be negotiated on the basis of a rate per flying hour as follows:

Bell 206B Jetranger	\$850 per hour
AS350B Squirrel	\$1075 per hour
SA 315B1	\$1125 per hour

Ground Spraying (crops):

Canterbury

Rates vary depending on chemical used, application rate and crop being sprayed.

Boom spraying costs	\$32 per ha
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Contract Weed Control:

Gunning work, 2 people and machinery:

Depending on hours worked	\$72 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.

Rural Livestock Ltd: 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

	<u>Sale Yards</u>		<u>Clearing Sales</u>
Sheep	5.50%	Sheep	5.50%
Prime/Store Cattle	5.50%	Store Cattle	5.50%
Vealers	5.50%	Dairy Cows	7.50%
Bulls Stud	8.50%	Horses	8.00%
Dairy Cattle	7.50%	Stud Sheep/Cattle	8.50%
Pigs	6.25%	Pigs	6.25%
Deer - weaners	5.50%	Dogs	8.00%
Deer - breeding	8.50%	Motorised Plant & Implements	10.00%
Goats - P/bred, G1	7.50%	Furniture	10.00%
- G2 to Feral	5.50%	Sundry	12.50%

Central North Island

	<u>Sales Yards</u>		<u>Clearing Sales</u>
Sheep	6.00%	Sheep	6.00%
Cattle	5.50%	Store Cattle	6.00%
Store Cattle	6.00%	Pigs	6.00%
Vealers	5.50%	Dairy Cows	7.00%
Bulls Stud	9.00%	Horses	8.00%
Dairy Cattle	7.00%	Stud Cattle	8.00%
Pigs	7.50%	Stud Sheep	8.00%
Deer -weaners	6.00%	Dogs	10.00%
Deer - breeding	6.00%	Motorised Plant & Implements	10.00%
Deer - stud	8.00%	Furniture	15.00%
Goats - G2 - feral	6.00%	Sundry	15.00%

2.10.3 The Direct Costs of Harvesting and Marketing Wool

(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: Shearing shed</u>	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: Transport/Selling</u>	49.6	48.9	47.2
Net Return to the Grower	303.3	293.4	280.3

Source: *Wools of New Zealand*.

* Editors' 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.

2.10.4 Goat Fibre Charges

The *South Island Mohair Warehouse Co Ltd* classing and handling charges are as follows (Note: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: 1.5% (optional)
IMA Levy: 7 cents per kg on 0 and 1st lines (optional)

Cashgora NZCF Levy: 1.5%
Promotion: 20 cents per kg
Quality Control: 48 cents per kg (includes fibre testing)
Transport: At cost to warehouse.

Cashmere Current Cashmere costs are unavailable at the moment, but are expected to be similar to Cashgora.

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	\$11 to \$17 per head
Cattle	\$110 to \$165 per head

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	\$0.90 per head	Goats	\$0.95 per head
Sheep	\$1.00 per head	Bobby Calves	\$0.90 per head
Cattle	\$6.30 per head	Horses	\$6.30 per head
Pigs	\$3.15 per head		

Note:

- 1). These indicative rates are based on the recovery of the total budgeted inspection costs divided by the estimated national kill for the 1994/95 killing season.
- 2). Significant variation in rates may occur between plants because of the different nature and pattern of kill between plants.

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)
* <i>Federated Farmers</i>	\$0.68	\$0.32	\$0.42	\$0.32
* <i>Disease Eradication</i>	\$8.71	\$8.71		\$8.71
<i>Meat Producers Bd.</i>	\$4.20	\$4.20	\$0.24	\$4.20
<hr/>				
Total Levies	\$13.59	\$13.23	\$0.66	\$13.23
<u>Levies per head:</u>	Lambs	Sheep and Goats	Pigs	
* <i>Federated Farmers</i>	\$0.03	\$0.03	\$0.02 ¹	
<i>Meat Producer Board</i>	\$0.47	\$0.47		
<i>Pork Industry Board</i>			\$4.43	
<hr/>				
Total Levies	\$0.50	\$0.50	\$4.44	

Note:

Other Adult 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 carcass weight, plus 3¢ per kg for the Animal Health Board, on all farmed deer going through Deer Slaughter Premises and an 18¢ per kg levy on feral deer through Game Packing Houses.

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.

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 *Section 1.10.1*

2.10.10 Wheat Growers Levies

United Wheatgrowers levy - \$3.00 per tonne

- includes levies payable by grower for wheat insurance (\$1.95), economic and administration (\$0.55), and research (\$0.50).

2.10.11 Potato Levy

The *New Zealand Vegetable and Potato Growers Federation* has a compulsory levy of 0.375% of the gross value of potatoes.

2.10.12 Horticultural Levies

Annual Berryfruit Levy

A levy is paid on the area of fruit grown.

Less than 250 sq metres - Nil

Over 250 sq m but not over 8000 sq m or 2000 strawberry plants
(which ever is less) - \$170

8000 sq m and over - \$305

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.

South Island raspberries divided into three regions (Nelson, Canterbury and Otago), each with own levy system:

Nelson: A levy of 6 cents per kg on export and locally sold produce.

Canterbury: Levy of \$10.00 per decare 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	Exporter	Exporter
Nectarines	-	5¢ per kg	2¢ per kg	2¢ per kg
Apricots	-	4¢ per kg	2¢ per kg	2¢ per kg
Peaches	-	4¢ per kg	2¢ per kg	2¢ per kg
Plums	-	4¢ per kg	2¢ per kg	2¢ per kg
Cherries	-	9¢ per kg	3¢ per kg	3¢ per kg
Blueberries (Fresh)	10¢ per kg	23¢ per kg	5¢ per kg	5¢ per kg
(Frozen)	1¢ per kg	6¢ per kg	2¢ per kg	2¢ per kg
Table Grapes	-	10¢ per kg	3¢ per kg	3¢ per kg
Avocados	3.0%	50¢ per tray	10¢ per tray	10¢ per tray
Feijoas	2.0%	30¢ per tray	20¢ per tray	20¢ per tray
Persimmons	4.0%	68¢ per tray	22¢ per tray	22¢ per tray
Buttercup Squash	0.375%	0.375% + \$1.50 per t	\$1.50 per t	\$1.50 per t
Garlic	0.375%	0.375% + 3¢ per kg	-	-
Black Currants	-	2.5¢ per kg	-	-

Citrus Fruits:

The Citrus Planning Council imposes a 3% levy on all citrus fruit growers.

See over page for other horticultural levies

Orchard Levies:

Orchard Levies apply to all fruit grown in orchard type conditions except berryfruits (see previous page), e.g. kiwifruit, pip and stonefruit:
\$28 per ha with a minimum of \$135 and a maximum of \$1125.

Berry Fruit Garden Levy - under 250 m ²	Nil
- 250 m ² to 8000 m ²	\$170
- 8000 m ² and over	\$305

Vegetables

Compulsory Levies - Registration fee to Vegetable Federation.

Fresh vegetables:	0.375% of gross value
Process vegetables:	0.5625% of gross value
Potatoes (all uses):	0.375% of gross value
Fresh Tomatoes	0.375% of gross value

Voluntary Levies

- Asparagus: - 1.8% of gross value on fresh domestic produce or produce for processing.
- 3.9c per kg on fresh export produce.
- Tomatoes: - 0.5% on all fresh produce.

2.11 SUNDRY CROPPING and HORTICULTURAL EXPENSES

2.11.1 Seed Certification Charges 1994/95

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:

- a) Grower Fees

Crop eligible 1st or 2nd Generation	\$62 per paddock
Crop eligible Breeders or Basic plus travel	\$124 per paddock
Late fee	\$5.50 to 43.00 per paddock
Crops withdrawn before inspection date	\$25

 - b) Plot Testing Fee \$10 per line

 - c) Per Kilogram Fee Cents/kg MD Seed: (sack weight in brackets)

Cereals	0.68 (50kg)	0.58 (70kg)
Grasses/Brassicac	1.25 (25kg)	1.00 (40kg)
Herbage Legumes	2.25 (25kg)	1.90 (50kg)
Redressing and Downgrading	17¢ per sack	
- Uncertified Seed**
- Per Line Fee \$31 per line
- Per Kilogram Fee Cents/kg MD Seed: (sack weight in brackets)
- | | | |
|-------------------|-------------|-------------|
| Cereals | 0.35 (50kg) | 0.25 (70kg) |
| Grasses/Brassicac | 0.81 (25kg) | 0.55 (40kg) |
| Herbage Legumes | 1.36 (25kg) | 1.02 (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 1.25 ¢ per kg MD seed \$81.25

2.11.2 Grain Drying Charges

Hodder & Tolley:

Manawatu/Rangitikei Drying Charges (1994 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

Buchanans Storage Company:

All grain drying	- less than 16% M.C	\$17.00 per tonne
	- greater than 16% M.C	\$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 1995, 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

N.Z. Agriseeds:

Schedule of Seed Testing Charges -

Purity and germination combined	\$79
Purity only	\$46
Germination only	\$46
Germination only field dressed (GOFD)	\$35
Damaged Seed	\$35
Conductivity	\$32
Hollow Heart - as part of germination test	\$22
- as a separate test	\$35
Vigour - Sweetcorn and Peas	\$57
Controlled deterioration	\$64
Seed Count	\$22
Tetrazolium	\$69
Moisture	\$50
Blind Seed	\$43
Endophyte - standard 20 seed	\$88
- breeders 100 seed and seedling	\$175
Copy Certificate	\$16
Export Certificate (Ryegrass)	\$22

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	\$27.00

2.11.5 Sacks, Crates, Packaging and Weighing Equipment

Sacks

Ashley Wool and Sack Ltd:

Chaff Sacks

48 inch (122 cm) 3 stripe sack,	- Jute	\$1.90
	- Polypropylene	\$1.20

Chapman Sacks	<u>New</u>	<u>Used</u>
46 inch (166 cm) standard sack	\$1.50	\$1.10
Pea Sacks - 37 inch (94 cm) sack	\$1.10	\$0.70

Note: Discounts for bulk (not normally sold as singles). A bale holds 250 to 300 sacks.

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:

Price Per 1000

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 1000

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: (1994 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. The total cost of an assembled and palletised "tray equivalent" (TE) will range between \$1.23 per TE with Euro packaging to \$1.268 for conventional packs.

Kiwipax: Single layer tray (SL) \$1.13 each

Tripack tray \$2.16 each

Tripack glue \$0.02 per tray

Machine hire: SL \$0.02 per tray

Machine hire: Tri \$0.03 per tray

Europax-Ecopax: Double layer (2/L) \$1.30 each

10kg bulk (10kg) \$1.84 each

Machine rental \$0.03 each

Glue: 2/L \$0.02 each

Glue: 10kg \$0.025 each

Pocket Packs: S.L. \$164.00 per 1000

Euro \$157.00 per 1000

Corner Boards:	1.9m steel	\$1.10 each
	1.9m Euro	\$1.20 each
	0.9m steel - slotted	\$0.86 each
	1.95m steel	\$1.10 each

Polyliners (indicative prices):

High Density:	S.L.	\$25.42 per 1000
	Tri	\$66.10 per 1000
	Euro 2/L	\$53.11 per 1000
	Euro 10kg	\$63.12 per 1000
Pallets:	Kiwipax/F.C.L.	\$11.60 each
	Wood/P84	\$11.90 each
	Euro P10	\$26.50 each
Pallet Cap:	Euro P10	\$4.00
Strapping:	Heavy Duty 19mm	\$39.00 per 1000m roll
Seals:	Heavy Duty 19mm	\$29.00 per 1000m roll

Southcorp Packaging:

Packaging Film -

(a) **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

(b) **Nashi Polythene Products**

Polybags	500 x 375 x 525mm x 30 μ (green tint)	\$95 per 1000
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(c) **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

(d) **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 -

(a) **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

(b) **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

Flight Group Ltd:

Punnets:

Mainland range to suit the T1686 seedling tray		<u>Price per Carton</u>		
		(1000 units unless otherwise stated)		
		<i>5 to 24</i>	<i>25 to 50</i>	<i>over 50</i>
T1664	- 161x115mm	\$107.70	\$103.60	\$99.20
T1751 - 1/2 punnet	- 115x80mm	\$59.30	\$56.80	\$54.20
T1862 - 1/4 tray	- 240x170mm	\$299.50	\$287.50	\$275.60
T1204 - 4" Ace Pot	- 100x100mm	\$116.70	\$110.70	\$107.00
Hauraki range to suit the T1805 seedling tray -				
T1408 - 100x150x50mm		\$82.00	\$86.10	\$82.30
T2131 - deep punnet 100x150x70mm		\$95.95	\$91.35	\$87.00
T1884 - Plug punnet - 4 cell - 152x104x55mm		\$111.60	\$106.15	\$101.90
Manawatu range to suit the T1805 seedling tray -				
T1738 - 150x130mm		\$111.60	\$107.40	\$108.35
Aussie Range to suit the T2146 seedling tray				
T2144 - 138x82x45mm		\$84.65	\$80.60	\$76.80

Scales

Pacific Growers: (1994 prices)

Digital scales	- 2kg maximum			\$144.10
	- 5kg maximum			\$230.40
Adapter 5V for scales				\$24.75

2.11.6 Grading and Packing Charges - Horticultural Produce

Note: See also *Section 3, Export Fruit Gross Margins.*

Section 1.11.2, for Apple and Pear Marketing Board assessment of apple packing costs per TCE.

Section 1.11.4, for kiwifruit packing costs.

Contract Grading/Packing

Apples

Current charges were unavailable at time of printing (February 1995). As a guide only the 1993 apple grading charges for one *Canterbury* contractor were

<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	\$69.65
50 to 54% pack-out	\$70
45 to 49% pack-out	\$75
44% pack-out	\$80

A *North Island* contractor charges the following:

- 13¢ per kg input charge
- growers to pay all transport charges
- Drenching charge (calcium level dependent) \$4.00 per bin delivered

Avocado (1994 prices)

Packing charges for export Avocado export were around \$1.90 per tray.

Kiwifruit

A *North Island* packing house charges the following (rates differ according to amount of kiwifruit being processed):

- \$1.90 per tray at 90% pack-out plus 2¢ per 1% decrease in pack-out (transport included).

Growers Packing Costs

Kiwifruit

Typical total costs are \$2.05 per tray in Northland, \$1.95 in the Auckland region, and \$1.95 in Waikato and Bay of Plenty. (Packed and assembled tray components will total about \$1.38 per tray equivalent assuming an 80/20 split of S.L. and Tripacks and standard tray size; or New Europack - 80/20 split \$1.24 per tray equivalent).

See also *Section 1.11.4* 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):

\$6.50 base rate per standard chip pallet (1200mm length x 1000mm width x 1.2m high), per week or part thereof for both chiller and freezer space. Prices set depend on quality, whether the product can be double stacked, temperature and the length of time the product is to be stored.

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:

1995 contract coolstore costs are estimated (as at February 1995) to be about \$95 to \$100 per conventional pallet equivalent (average - 190 tray equivalents per pallet).

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 \$42 per hive and up to \$45 per hive for other crops or for small quantities.

Bumble Bees (Purchase)

Zonda Resources: 40 to 80 Bees, serves 1400 sq.m

Per Hive

\$150 to \$210

Pollinators

Croplands Equipment Ltd:

Turbo Bee 700, Wind Pollinator

\$3650

Airflow Pollination Ltd:

Airflow Pollinator

\$1800

2.11.9 Weighing Charges

The current weighing charge at a weigh bridge in Christchurch (*Pyne Gould Guinness Ltd*) is \$6.00 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:

Dairy Farms - \$9,000 to \$13,000.

Sheep and Beef Farms - \$6,000 to \$9,000.

Kiwifruit Orchard (5 ha) - \$2,500 to \$3,500

Apple Orchard (10 ha) - about \$5,000 to \$6,500

Source: M.A.F. Farm Monitoring Report, 1994.

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 10 to 20 cents per km
Tractors	allow \$3 to \$10 per hour depending on size and age (or 50% 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 Farms	-	\$7000 to \$11000 per year
Kiwifruit Orchard (5 ha)	-	\$4000 to \$5500 per year
Apple Orchard (10 ha)	-	\$9000 to \$11000 per year

Source: MAF Farm Monitoring Report 1994

For details see individual items in this section.

Note: 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) 42 kW (56 HP) 4WD Tractor

Replaced after 4000 hours (6 years)

Initial Cost \$45,000; Resale Price \$23,000

Running: Average 670 hours per year

Fixed costs per annum:

Opportunity cost \$45,000 at 6% (Real) \$2700.00

Replacement cost \$45,000 to \$23,000

\$22,000 x sinking fund factor

(6% for 6 years) 0.1434 \$3154.00

Annual licensing fee \$28.00

Insurance \$55 plus .65% on balance over \$5000 \$315.00

\$6197.00

Total fixed cost per hour (670 hours/year) **\$9.25**

Variable costs per hour:

Fuel usage - 10.1 litres at 46¢/litre \$4.65

- based on minimum cultivation conditions

Oil and filters 15% of fuel cost \$0.70

Repairs and maintenance 50% of purchase price over 'economic life' of tractor (6000 hrs) \$3.75

Total variable costs per hour **\$ 9.10**

Total cost (fixed and variable) per hour **\$18.35**

Total per ha (assuming 1.26 ha per hour) **\$14.55**

Including labour at \$10 per hour

Total per hour **\$28.35**

Total per ha **\$22.50**

(ii) 75 kW (100 HP) 2WD Tractor

Replaced after 3500 hrs (6 years)

Initial Cost \$77,150; Resale Price \$41,000

Running: Average 580 hours per year

Fixed costs per annum:

Opportunity cost \$77,150 at 6% (Real) \$4629.00

Replacement cost (\$77,150 to \$41,000)

\$36,150 x Sinking fund factor

(6% for 6 years) 0.1434 \$5184.00

Annual licensing fee \$28.00

Insurance \$55 plus .65% on balance

over \$5000 \$524.00

\$10,365.00

Total fixed cost/hour assuming 580 hours per year \$17.87

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 50% of purchase price
over 'economic life' of tractor (6000 hrs) \$6.43

Total variable cost per hour \$15.95

Total cost (fixed and variable) per hour \$33.82

Total per ha (assuming 2.25 ha per hour) \$15.03

Including labour at \$10 per hour

Total per hour \$43.82

Total per ha \$19.47

(iii) 75 kW (100 HP) 4WD Tractor

Replaced after 3500 hours (6 years)

Initial Cost \$86,951; Resale Price \$50,000

Running: Average 580 hours per year

Fixed costs per annum:

Opportunity cost \$86,951 at 6% (Real)	\$5217.00	
Replacement Cost (\$86,951 to \$50,000)		
\$36,951 x Sinking fund factor		
(6% for 6 years) 0.1434	\$5299.00	
Annual licensing fee	\$28.00	
Insurance \$55 plus .65% on balance		
over \$5000	\$588.00	
	\$11,132.00	
Total fixed cost/hour assuming 580 hours per year		\$19.19

Variable costs per hour:

Fuel usage - 18 litres at 46¢/litre	\$8.28	
- based on minimum cultivation conditions		
Oils and filters 15% of fuel cost	\$1.24	
Repairs and maintenance 50% of purchase price		
over 'economic life' of tractor (6000 hrs)	\$7.25	
Total variable cost per hour		\$16.77
Total cost (fixed and variable) per hour		\$35.96
Total per ha (assuming 2.25 ha per hour)		\$15.98
Including labour at \$10 per hour		
Total per hour		\$45.96
Total per ha		\$20.42

2.13.3 Car Operating Costs

Based on AA estimates, total car operating costs (as at September 1994) were:

	Running cost	Fixed cost	Total cost
up to 1300cc	\$3760	\$4190	\$7950
1301 to 1600cc	\$4040	\$5000	\$9040
1601 to 2000cc	\$4540	\$6240	\$10780
over 2000cc	\$5480	\$7420	\$12900

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)	80.40 cents per litre.
	- Super (96 octane)	84.40 cents per litre.
Diesel	- 44.20 cents per litre.	
LPG	- 76.9 to 78.1 cents per litre.	

Note: Tax of 9.4 cents per litre may be refunded depending on the type of vehicle and usage.

CNG - 51 to 52 cents per kg.

Oil -

A major N.Z. Company's oil prices:

	Container Size	Wholesale Delivered
Visco 3000	205 litre	\$3.58 per litre
Universal Tractor Oil	205 litre	\$3.20 per litre
Visco 2000	205 litre	\$2.96 per litre
Gear Oil 80 EP	60 litre	\$4.23 per litre
Hypogear 80W-90 EP	60 litre	\$3.33 per litre
(Two Stroke Oil)	60 litre	\$4.07 per litre
Multi-purpose grease L2M	18 kg	\$5.25 per kg
Tractran 10	60 litre	\$3.50 per litre
Hydraulic Fluid HLP46	60 litre	\$2.80 per litre
Antifreeze	20 litre	\$4.87 per litre

2.13.5 Tyres and Tubes

Firestone:

Tyres:

"Eurosteel" Commercial Steel Belted Light Truck Radial	\$234 to \$333
Steelcord Radial Truck and Bus Tyres	\$530 to \$1035
Front Tractor Tyres, 600-16/6 to 750-16/8	\$120 to \$165
Rear Tractor Tyres 13-24/6 to 14-30/8	\$405 to \$680

Tubes:	
Light Truck Tubes	\$16 to \$27
Truck and Bus Tubes	\$35 to \$44
Tractor Tubes	\$16 to \$90

O.T.R. International Ltd:

Tyres - Tractor: Front	- \$134 and \$230 for sizes 600-16/6 and 750-16/8
Rear	- \$365 and \$600 for sizes 9.5/9-24/8 and 14.9/13-24/6
	- \$850 and \$1,058 for sizes 16.9/14-30/8 and 18.4/15-34/8

2.13.6 Licensing/Road Charges

Annual Licensing Fees

	<u>Total</u>
Cropping Machinery (self propelled, headers etc)	\$31.20
Farmers Cars	\$50.20
Farmers Motorbikes - Under 60 cc	\$21.20
- 61 cc and over	\$31.20
Trucks (not subject to a transport licence)	
- up to 3500kg	\$140.20
- over 3500 kg 2 axles	\$141.60
3 axles	\$141.60
4 or more axles	\$141.60
Farmers Trucks exempt Class B up to 3500 kg	\$50.20
- over 3500 kg	\$50.20
Tractors exempt Class B	\$31.20
Trailers - up to 3500kg exempt Class B	\$31.20
- Exempt Class B over 3500kg 2 axles	\$50.20
3 axles	\$50.20
Car Trailer	\$31.20

Note: 6 month licences are available and are usually approximately 50% of the 12 month fees.

Road User Charges

Vehicles which must pay Road User Charges and those required to display distance licences are described below.

Vehicles required to pay road user charges are:

1. All vehicles, including trailers, with a manufacturers gross laden weight exceeding 3.5 tonnes.
2. All vehicles which are powered other than by petrol, CNG or LPG.

See over page for exemptions

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 tyres per axle and the axle spacing.

As there are so many variables in the computation of rates we have given two examples:

Type 1 i.e 3 axles with one single tyred and two twin tyred

- up to 7 tonnes gross laden weight	5000 km	\$164
- up to 10 tonnes gross laden weight	5000 km	\$253

Type 2 i.e 2 axles with dual wheels on the rear axle

- up to 7 tonnes gross laden weight	5000 km	\$208
- up to 10 tonnes gross laden weight	5000 km	\$439

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 may be obtained when:

- An unexpired licence is replaced.
- A vehicle is permanently destroyed, exported, or deregistered.
- Off-road travel has occurred.

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

127 kW (170 HP) Header Harvester - Total Running Costs:

Replaced after 3000 hours (15 years) 200 hours per year

Initial Cost \$250,000; Trade in Value \$100,000

Fixed costs per annum:

Opportunity cost \$250,000 at 6% (Real)	\$15,000.00	
Replacement cost (\$250,000 - \$100,000)		
\$150,000 x sinking fund factor		
(6% for 15 years) 0.043	\$6450.00	
Annual licence (6 months)	\$21.00	
Insurance \$50 plus .60% on balance over \$5000	\$1520.00	
		\$22,991.00
Total fixed costs per hour assuming 200 hrs per year		\$114.96

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 65% of purchase price over economic life (5000 hours)	\$32.50	
Total variable costs per hour		\$48.62
Total cost (fixed and variable) per hour		\$163.58
Total per ha (assuming 1.25 ha per hour)		\$130.86
Including labour at \$15 per hour		
Total per hour		\$178.58
Total per ha		\$142.86

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2.14 PROFESSIONAL FEES

2.14.1 Accountancy Fees

Accountants base their fees on input of time taken in compiling returns and services required by their clients.

Some of the reasons why fees vary considerably 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.

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 Farm Advisory Service:

Lincoln University operates a commercial Farm Advisory Service which provides a full consultancy service to the public.

A group of full-time farm management consultants, and an horticultural management consultant are available for consultancy, property supervision and feasibility studies. Agricultural study tours are designed and conducted both in New Zealand and overseas.

The Service includes:

1. Regular advisory services to farmers.
 2. Executive control and administration of properties.
 3. Advice and preparation of reports on specific matters.
 4. Reports and recommendations to intending buyers and sellers of rural property.
- The consultancy fees are based on a rate \$65 per hour (regularly serviced clients) or \$65 to \$75 (special or one off situations). Travel is charged at a rate of 60c per km in the first case and 65c per km in the second.

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.

All fees are subject to review at the discretion of the Management Committee.

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.

2.14.4 Land Transfer Fees

This fee is charged by the Lands and Deeds Office of *The Justice Department* on all land transactions, such as transfers, mortgages and related documents.

The cost of an ordinary transfer of title is \$102.20. If the land is in more than one title the cost of transferring each additional title is \$4.44.

In subdivision situations the fee for each new title is \$80.00.

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:

(a) 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.

(b) 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 \$630,000),
The valuation would take approximately 12 hours and cost \$800 to \$1,000 (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 \$400,000), the cost would be about \$800 to \$1,000 plus GST (at least one day's work).
- For a glasshouse property (about 1/2 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	\$11,500
Dairy	\$10,500
Kiwifruit	\$6,000
Apples	\$5,000

Source: *M.A.F. Farm Monitoring Report, 1994*.

2.15.1 Telephone Costs

Telecom - Canterbury:

Standard Residential Network Connection Charge	\$55.00
Change of customer name	\$35.00

Line Rental (per month):

Standard Residential	\$30.79
Standard Business - with Local Call Charging - Individual	\$60.42
Non-standard Business - B1 - Individual	\$91.30
Non-standard Business - B2 - Individual	\$67.48

Telephone Rental (per month):

Standard Business Rental Phone	\$3.56
Standard Residential Rental Telephone	\$3.56
Second and subsequent	\$3.56

Wiring Maintenance Charge (per month) - optional \$0.45

Minimum call out charge:

Business	\$30.00
Residential (Applies if telephone is not owned by Telecom)	\$30.00

Hourly charge out rate outside normal hours:

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 - 45¢.

Fast Post - 80¢.

Non-standard articles:

<u>Envelope size</u>	<u>Standard Post</u>	<u>Fast Post</u>
Medium (up to 120mm x 235mm)	\$0.45	\$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 \$3.00 to \$5.50 (Standard Post), and \$4.00 to \$8.80 (Fast Post).

A 20 kg parcel ranges from \$9.20 to \$24.00 (Standard Post), and \$11.00 to \$34.40 (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	\$3.15
1 ticket/25kg	Outer -Amberley, Darfield, Rakaia(70km)	\$3.62
1 ticket/15kg	Short-haul -West Coast, Methven, Waimate, Kaikoura	\$5.25
1 ticket/5kg	Long-haul -Rest of South Island	\$7.88
1 ticket/5kg	Inter-Island -Stewart or North Island	\$15.23

Example Hamilton:

Boundaries

1 ticket/25kg	Local -Te Rapa,Chedworth,Hillcrest,Dinsdale,Glenview and Airport	\$3.05
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		0.5 kg	1 kg	5.0 kg	10 kg
1	Australia/Fiji	\$12.60	\$22.70	\$99.40	\$151.40
2	Southeast Asia/Pacific	\$28.90	\$42.80	\$154.00	\$258.50
3	UK, USA, Canada	\$40.45	\$61.25	\$227.65	\$323.65
4	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"	-	\$80.00 per year or \$1.90 per copy.
"Dairy Exporter"	-	\$18.24 per year.
"Straight Furrow"	-	Free.
"Horticultural News"	-	\$4.75 per copy.
"The Orchardist"	-	\$72.00 per year.
"The Main Report Agricultural Letter"	-	\$102.22 per year or \$4.44 per copy.
"Country Living"	-	\$31.24 per year.
"The Deer Farmer"	-	Member \$56.00 per year.
	-	Non-member \$76.00 per year.

Organisations

Young Farmers

Full member:	\$35.56
Associate member: e.g. advisory member	\$8.89
School Club member:	\$8.89

Federated Farmers (Canterbury)

Corporate member:	\$300
Owner:	\$150
Sharemilker	\$100
Small farmer:	\$100
Associate member:	\$50

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.

See also advertisement at front of Manual.

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.

See also advertisement at front of Manual.

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:

- A) Paddock area calculations only.
- B) Paddock area calculations, fencelines, etc. redrawn in ink, paddock numbers/names/areas noted and 50 reduced copies of the map are included.
- C) 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.

A sample of approximate costs are provided below. Prices vary according to farm size, number of paddocks and whether the options, A, B or C are chosen.

- (1) 64 ha farm with 33 calculated areas (paddocks).
 - Option A \$170
 - Option B \$270
 - Option C \$360
- (2) 100 ha farm with 50 calculated areas (paddocks).
 - Option A \$250
 - Option B \$410
 - Option C \$500
- (3) 620 ha farm with 52 calculated areas (paddocks).
 - Option A \$260
 - Option B \$420
 - Option C \$520 (incl. 1 x extra enlargement)
- (4) 870 ha farm with 90 calculated areas (paddocks).
 - Option A \$450
 - Option B \$720
 - Option C \$870 (incl. 1 x extra enlargement)

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 general guidelines are:

Buildings:

Dwelling	- 200 square metres (\$100 excess)	\$337.40
Woolshed	- \$100,000 value (\$500 excess)	\$307.00

Plant and Machinery:

Tractor	- \$10,000 including tyre cover (\$100 excess)	\$74.96
Utility	- \$20,000 including windscreen cover	\$284.96

Specialised Farm Equipment

Chainsaws, tools, scanaprobe, nitrogen containers, radio telephones etc.

All Risks: per \$100 value - \$0.362

Wool:

\$0.362 per \$100 value

General Farm Produce and Manures: whilst on the farm - \$0.362 per \$100

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 \$47.05 per \$100 cover
(Cover for an income of \$500 per week would cost $\$47.05 \times 5 = \235.25 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:

\$1 million Premium is \$200

Stock Insurance

Wrightson:

See also advertisement on the back page of Manual

Livestock on farm (fire and electrocution only) - \$0.10 per \$100.

The following charges are for mortality and loss of use by accident, illness and disease:

Pedigree bulls:	7.50% of value for 12 months
Run bulls:	9.90% of value for 12 months.
Stud rams:	10.00% of value for 12 months.
Deer - Stag:	9.00% of value for 12 months.
Deer - Hinds:	6.50% of value for 12 months.

Note: All the prices/quotes include all earthquake and fire service charges.

Crops

Pyne Gould Guinness (1994 contracts for 1995 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. They do not provide a 'Full Cover' option.

N.B. Wind, hail and frost damage will not be paid unless the damage exceeds 30% of the expected yield.

Excess: Fire and Lightning	NIL	} of all losses
Other Losses	15%	

(ie. the insurer pays 85% of the losses)

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	\$69.33
General rate:	0.3602 cents in \$ (L.V.)
Regional general rate:	0.0711 cents in \$ (C.V.)
Regional transport rate:	0.0010 cents in \$ (C.V.)

Also depending on location and the services supplied, water (domestic and/or stock) or sewage rates may be applicable.

Selwyn District Council(Canterbury):

1994/95 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: 0.000895 of C.V

	Community Service	Work and service	
Ellesmere	0.000163		0.001797
Malvern	0.000365		0.002294
Paparua	0.000021		0.001213

In addition, the Selwyn District Council collects other rates such as Community Centre levy, water supply levy and 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 \$395,000 in the Malvern area would pay \$2986 in rates. This includes water race charges of \$1133, and pest board rates.

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 Properties - available for milking on \$500 to \$600 per hectare.

Dairy run-off blocks - \$370 to \$450 per hectare

Intensive central Southland sheep properties - \$250 to \$300 per hectare or \$16.50 to \$20.00 per stock unit

Extensive type properties - \$12 to \$14 per stock unit

Waikato:

Dairy Properties - Farms are typically leased for \$1.50 to \$1.60 per kg milkfat or \$550 to \$620 per ha, while land suitable for dairy heifer grazing is leased at \$350 to \$450 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: (1994 rates)

Hill country - \$50.00 to \$80.00 per hectare.

Finishing country (rolling to flat) - \$198 to \$370 per hectare.

Cropping/Dairying land - \$500 to \$600 per hectare.

Potato land - \$700 per hectare.

Bay of Plenty:

Dairy Properties - Lease rentals in the range of \$0.86 per kg milksolids to \$0.98 per kg milksolids or \$535 to \$607 per hectare.

Drystock - Range from around \$100 to \$200 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, January 1995.

Lending Organisations gave quotes (as at 23 January 1995) 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 *Agrifax* - 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	Interest Rate		Other Fees	Cheque (25)	Yearly
	Establishment Fees (\$)	Base (%)	Margin (%)	Per 3 Months (%)	\$/Month (\$)	Net Cost (\$)
ANZ	0	11.1	0.0	0.35	7.00	\$1257
BNZ	0	12.6	0.0	0.0	8.50	\$785
Nat. Bank Free Plan	250	11.4	1.2	0.0	10.00	\$853
PIBA	250	9.5	0.0	0.0	8.50*	\$1479
Westpac	260	11.04	0.0	0.3	9.75	\$1367
ASB Bank	50	10.5	1.35	0.0	8.00	\$748
Southland Building & Investment Society	250	11.15	0.5	0.0	8.50*	\$1093

* Denotes no cheque facility, BNZ rates used in the calculations.

continued next page

Name	Investigation	Interest Rate		Other Fees	Cheque (25)	Yearly
	Establishment Fees (\$)	Base (%)	Margin (%)	Per 3 Months (%)	\$/Month (\$)	Net Cost (\$)
Trust Banks:						
Waikato	0	11.65	0.0	0.16875	9.00	\$1077
B.O.P.	0	11.65	0.0	0.1875	7.50	\$1096
Central	0	11.65	0.0	0.1875	9.50	\$1120
Canterbury	0	11.65	0.0	0.1875	10.00	\$1032
South Canterbury	250	11.65	0.0	0.1875	9.50	\$1170
Otago	0	11.65	0.0	0.125	10.00	\$939
Southland	0	11.65	0.0	0.16875	10.00	\$1089

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	11.10	no	11.7%	\$24,661
BNZ	750	11.12	yes	11.7%	\$24,284
Nat. Bank Freeplan	500	10.66	yes	11.12%	\$23,313
PIBA	1000	9.50	no	10.0%	\$21,435
Westpac	740	11.04	yes	11.8%	\$24,888
ASB Bank	200	10.83	no	11.4%	\$23,575
AMP	1400	9.25	no	9.7%	na
NZI Guardian Trust	1000	10.5	no	11.0%	na
PGG Trust	1200	11.15	no	11.18%	na
Southland Building & Investment Soc.	1000	11.15	no	11.8	\$24,675
Trust Banks:					
Waikato	1000	11.05	yes	11.7%	\$24,559
B.O.P.	500	11.05	yes	11.7%	\$24,545
Central	500	11.05	yes	11.7%	\$24,569
Canterbury	500	11.05	yes	11.7%	\$24,482
S.Canterbury	1000	11.05	yes	11.7%	\$24,653
Otago	500	11.05	yes	11.7%	\$24,346
Southland	1000	11.05	yes	11.7%	\$24,571

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, January 1995

2.17.2 Interest and Bank Charges (See also *Section 2.17.1*)

Important Note:

Interest rates quoted below are as at February 1st 1995 unless otherwise stated. Readers are advised not to rely on these figures for budgeting purposes as market interest rates can change rapidly.

Trading Banks

Bank of New Zealand:

See also advertisement at front of manual.

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

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 and expected to clear each year.
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:

Variable Rate -	Amendments to the prime rates are advertised in national newspapers.
-----------------	--

- Fixed Rate - Fixed interest rates for periods of one to five years then moving to a variable rate. 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 and first stock security where required.
- 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 - Service commitment fee - nil, only pay the interest.
Usual cheque account 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.
- N.B. 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).

National Bank (NZ) Ltd:

The National Bank offers a full range of rural financial services through one main point of contact - specialised Rural Managers, who are assigned to each rural customer.

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 into one account. |
| Access | - Cheque books - various options
- Cashpoint card - for use in money machines and EFTPOS facilities
- Freephone - for daily banking requirements
- Freepost - for depositing cheques and sending other correspondence
- DirectLink - PC based banking from the farm. |
| Payment services | Electronic payment services such as automatic payments, 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 a Rural Manager at a Branch of The National Bank
- Information required**
- Budget and cashflow forecast showing ability to service the debt
 - Copies of financial accounts for last three years
 - Statement of financial position

Primary Industry Bank of Australia Ltd.:

Interest only loans:

Preferred minimum loan = \$150,000 for 15 years and can be renewed.

Security is via land mortgage, up to 55% of valuation.

Establishment Fee 0.5%, payable on acceptance (negotiable).

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 (temporary or permanent) are possible with no penalties.

Interest Rates to Borrowers (as at 1/2/95)

Interest paid per annum - Variable Rate 8.25%

Fixed Interest options available - 90 day, 180 day, 1,2,3,4 and 5 years.

A.N.Z. Bank:

Farm Finance Loan:

This facility is primarily for farm purchase and/or re-financing, but can be extended to cover other capital items viz farm buildings, machinery, fencing and livestock.

Amount:

Limited to 60% of the fair market value of your property.

Charges desirably should not exceed 25% of gross farm income. Security is by way of registered first mortgage.

Term/Repayment Options: Flexible; up to 20 years

Interest Rate: 11.1% (as at 1/2/95)

Approval fee: Up to 1% of the facility: negotiable depending on the quality of the supporting information, and the complexity of the proposal.

Interest Reduction Facility:

When a farmer is paid for crop, wool or stock sales, there may be surplus funds to invest. Interest on these credits would normally be taxable. However, the Interest

Reduction Facility permits surplus funds to be transferred to the Farm Finance Loan and to effectively gain a term loan interest rate on credit funds, with no withholding tax. These funds are on call up to the gross amount deposited.

Sharemilker/Sharefarmer Stock and Plant Loan:

Amount: Limited to 50% of Fair Market Value of livestock.
Interest and rent should not exceed 30% of GFI.

Security: By way of a registered first chattel security over stock and plant.

Term/Repayment Options: Flexible, generally up to 5 years (maximum 7 years).

Interest Rate: 11.6% (as at 1/2/95).

Approval Fee: Same as Farm Finance Loan.

Seasonal Finance:

1. Farm Equity Credit Line:

This is a revolving credit cheque account facility for normal seasonal finance requirements and/or other finance needs.

Complementary to the 'Farm Finance Loan' and terms/conditions are similar.

Minimum amount \$5000, interest rate 11.1% (as at 1/2/95), line fee of 0.35% per peak quarterly limit.

Loan Application Fee: Up to 1% of the facility (negotiable).

2. Overdraft:

Where First Mortgage security over the farm property is not held by the bank, seasonal finance is available by way of an overdraft.

Amount and interest rate: Negotiable. As a guide to interest rate - 1% to 3% above the Index Lending Rate (11.5% at 1/2/95).

Approval fee: 1% (minimum \$50) plus line fee: 0.12% per peak monthly limit.

Bank Charges:

Base Fee: \$2.00 per month.

Ledger Activity Fee: 25¢ per chargeable transaction. The first five items per month are free.

Investment Products:

ANZ Bank offers an extensive range of financial services including Term Deposit, Unit trust, Insurance bond, Debenture, Commercial bill, International private banking, Estate planning and sharebroking facilities.

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 (10 to 11% per annum as at 1/2/95) 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 (10 to 11%) per annum as at 1/2/95) plus a margin based on the individual credit assessment of the borrower.

- 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 70% 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 Lending:

Interest Only:	Available and can be converted to a table or reducing payment loan.
Table:	Available for terms up to 15 years.
Reducing:	Available for terms up to 15 years.
Interest Rate:	For Rural Lending from 11% p.a (as at February 1995).
Fees:	Administration fee negotiable (usually \$500).
Security Margin:	Trust Bank lends up to 60% of the value of the registered or government value of land and buildings.
Repayments:	Loan repayments monthly. Principal payments can be made at any time without penalty.

Seasonal Lending:

(Rural Flexi Mortgage Finance Package)

Covers both mortgage and seasonal finance. Loan is drawn from, as required, by cheque.

Interest Rate:	From 11% p.a. (as at February 1995). There is an annual service fee of 0.75% of the total loan limit approved with a minimum charge of \$10 per month.
Transaction Fee:	Standard fee of \$10.00 per month.
Credit Interest:	Up to 4.0% p.a. is paid on credit balances.

Deposit Secured Mortgage

Advance secured by funds held in a summit account, and mortgage over land. Interest rate charged is 80% of prime rural lending rate.

Requirements for Lending:

Completed statement of position, cashflow budget, formal application, most recent set of farm accounts.

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 Ltd.:

Arranged seasonal finance (current account) for clients with no fees or charges involved other than interest. Finance is available to cover requirements given adequate security over stock, plant, land or crop or a combination of these.

Cheque facilities available with a fee of 65 cents per cheque used.

Term loans: (*Pyne Gould Guinness Trust*)

Interest rate of 11.15% (as at 1/2/95) with security of a first mortgage on rural properties.

PGG Trust also lends on residential and commercial securities and the respective ordinary interest rates for these classes of security are 11.0% and 11.5% (as at 1/2/95).

Wrightson Farmers Finance Ltd.: (See also advertisement on back page of Manual)

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.

Solicitors and Trust Companies

Solicitors and trust companies generally provide medium term finance (5 years) but shorter or longer terms are also available. Flat mortgages are the most common but provisions for repayment during the term may be included.

Interest rates vary but are currently between 9.75% and 11.75% on first mortgage. A collection fee of around .5% may be added to this. For example, a borrower might pay 10% interest plus collection fee of .5% to total 10.5% per annum. Interest rates are generally reviewable at yearly intervals.

As an example, *Guardian Trust* offers finance (flat mortgage) at an interest rate of 10.25% (February 1995) on amounts from \$75,000 (minimum) to \$5 million (maximum). Minimum term is 1 year, with a maximum of 20 years.

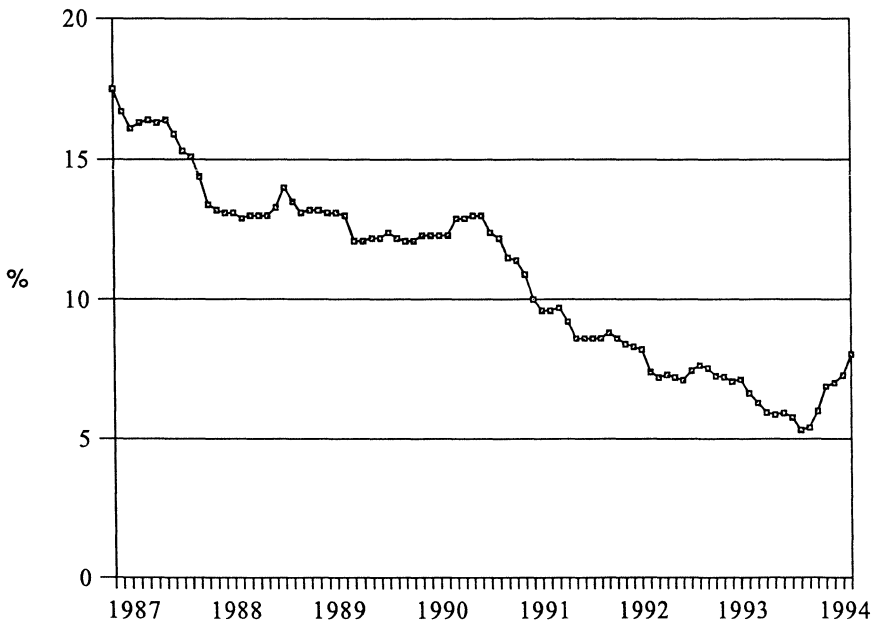
Other Institutions

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

Source: Reserve Bank Financial Statistics

Editors 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):



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:

Interest Rate	Years (Mortgage Term)				
	5	10	15	20	25
	\$ p.m.	\$ p.m.	\$ p.m.	\$ p.m.	\$ p.m.
6%	19.33	11.10	8.44	7.16	6.44
6.5%	19.57	11.35	8.71	7.46	6.75
7%	19.80	11.61	8.99	7.75	7.07
7.5%	20.04	11.87	9.27	8.06	7.39
8%	20.28	12.13	9.56	8.36	7.72
8.5%	20.52	12.40	9.85	8.68	8.05
9%	20.76	12.67	10.14	9.00	8.39
9.5%	21.00	12.94	10.44	9.32	8.74
10%	21.25	13.22	10.75	9.65	9.09
10.5%	21.49	13.49	11.05	9.98	9.44
11%	21.75	13.77	11.37	10.32	9.80
11.5%	22.00	14.06	11.68	10.66	10.16
12%	22.24	14.35	12.00	11.01	10.53
12.5%	22.50	14.64	12.33	11.36	10.90
13%	22.75	14.93	12.65	11.72	11.28
13.5%	23.01	15.23	12.98	12.07	11.66
14%	23.27	15.53	13.32	12.44	12.04
14.5%	23.53	15.83	13.66	12.80	12.42
15%	23.79	16.13	14.00	13.17	12.81
15.5%	24.05	16.44	14.34	13.54	13.20
16%	24.32	16.75	14.69	13.91	13.59
16.5%	24.58	17.06	15.04	14.28	13.98
17%	24.85	17.38	15.39	14.67	14.38
17.5%	25.12	17.70	15.75	15.05	14.78
18%	25.39	18.02	16.10	15.43	15.17
18.5%	25.67	18.34	16.47	15.82	15.57
19%	25.94	18.67	16.83	16.21	15.98

(ii) Quarterly Payments**(Quarterly Payments on Amortised Loans).**

The quarterly payment (interest and principal combined) per \$1000 borrowed on a table mortgage, is set out below:

Repayments of Principal and Interest Per \$1000 Borrowed

Terms of Loan:

Interest Rate	Years (mortgage Term)				
	5 \$ p.q.	10 \$ p.q.	15 \$ p.q.	20 \$ p.q.	25 \$ 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:

Interest Rate	Years (Mortgage Term)				
	5 \$ p.a.	10 \$ p.a.	15 \$ p.a.	20 \$ p.a.	25 \$ 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:

Round - Sheep	160 to 900 litres	\$91.00 to \$199.50
- Cattle	1020 to 2840 litres	\$206.00 to \$690.00
Oblong	170 to 545 litres	\$92.50 to \$168.00
Pig Troughs	90 to 180 litres	\$48.00 to \$54.50
Trough Covers - Lip Type		\$25.50

Humes:

	<u>Litres</u>	<u>Gallons</u>	<u>Height (mm)</u>	<u>Nth Island</u>	<u>Sth Island</u>
Circular Ballcock:					
CB500	500	110	380	\$159	\$163
CB750	750	165	380	\$212	\$230
CB1000	1000	220	600	\$249	\$256
CB2500	2500	550	600	\$431	\$442
Rectangular Ballcock:					
RB300	300	66	380	\$135	\$140
RB400	400	90	380	\$162	\$178
Trough Cover				\$26	\$26

Cement Products Ltd:

	<u>Litres (gal.)</u>	<u>Height</u>	<u>Weight</u>	<u>Price</u>
Oblong Troughs				
	270 (60)	370 mm	340 kg	\$111.00
	200 (45)	380 mm	280 kg	\$87.11
	36 (8)	170 mm	80 kg	\$41.78
Circular Troughs				
	225 (50)	310 mm	240 kg	\$87.11
	450 (100)	460 mm	480 kg	\$133.00
	1125 (250)	510 mm	1040 kg	\$204.00

Fibreglass*Ribtec:* (price includes delivery) (Round troughs)

<u>Litres</u>	(gal.)	<u>Diameter (m)</u>	<u>Height (mm)</u>	<u>Price</u>
340	(75)	0.89	500	\$164
600	(125)	1.60	330	\$248
900	(200)	1.37	610	\$280
1400	(300)	1.75	610	\$355
2200	(500)	2.13	610	\$484
4500	(1000)	3.5	610	\$840

2.18.3 Tanks**Concrete Tanks***Humes:*

<u>Litres</u>	(gal.)	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>Price</u> <u>Ex Chch</u>
11375	(2500)	2.70	2.76	\$1470
4550	(1000)	2.13	1.90	\$1071

Cement Products Ltd (Palmerston North):

<u>Litres</u>	(gal.)	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>Price</u>
900	(200)	1.20	1.15	\$609
1800	(400)	1.45	1.22	\$868
2700	(600)	1.75	1.22	\$988
3600	(800)	1.90	1.22	\$1084
4500	(1000)	1.90	1.83	\$1155
9100	(2000)	2.74	1.83	\$1548
13600	(3000)	2.74	2.44	\$1671
18200	(4000)	3.42	2.28	\$1867
22800	(5000)	3.42	2.74	\$1938
Flat Top Tanks				\$262

McKendrys: (Christchurch)

<u>Litres</u>	(gal.)	<u>Height(m)</u>	<u>Price</u>
1829	(400)	1.3	\$625
2955	(650)	1.3	\$885
4546	(1000)	2.1	\$952
13638	(3000)	2.7	\$1627
22730	(5000)	3.2	\$2183

Fibreglass Tanks

Ribtec: (price includes delivery)

<u>Litres</u>	<u>(gal.)</u>	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>Price</u>
681	(150)	0.89	0.99	\$337
1138	(250)	0.91	1.68	\$457
2276	(500)	1.33	1.4	\$862
4550	(1000)	1.83	1.68	\$1120
9100	(2000)	2.44	2.13	\$1613
15925	(3500)	3.15	2.06	\$1866
22750	(5000)	3.43	2.44	\$2178 (SI) \$2044 (NI)

RIBTEC

RIBTEC

FREE DELIVERY

ANYWHERE IN THE SOUTH ISLAND



ABOVE GROUND WATER TANKS



SPRAY TANKS

PLUS MANY MORE ITEMS



SEPTIC TANKS

TROUGHS



KILLING SHEDS



SILOS

SOUTH ISLAND FIBREGLASS TANKS LTD

- 20 YEAR GUARANTEE ON TANKS
- RIBBED FIBREGLASS CONSTRUCTION
- LIGHTWEIGHT EASILY LOCATED

10 WATSON STREET, ASHBURTON

PHONE (03) 308-1814

FAX (03) 308-6649

FREE PHONE 0800 101-418

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> (gal.)		
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</u> (gal.)		
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

Davey Products (N.Z) Ltd:

Home Pressure Systems

<u>Model</u>	<u>litres/min</u>	<u>Operating Range</u>	<u>Price</u>
XP 350 P	35	20 to 5 psi	\$395
XP 500 H	50	20 to 40 psi	\$650
XP 700 H	70	25 to 40 psi	\$765
XP 900 H	90	30 to 45 psi	\$900

Farm

Dynajet Farm Pressure Systems

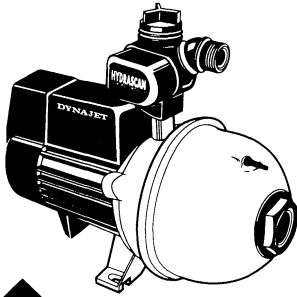
	<u>litres/min</u>	<u>Max. Pressure</u>	
95 S	95	98 psi	\$1030
125 S	125	113 psi	\$1120
165 S	165	120 psi	\$1295
95 D	95	93 psi	\$1295
125 D	125	96 psi	\$1485
165 D	165	109 psi	\$1530

("S" for shallow well - 25 feet. "D" for deep well - 138 feet)

Pressure tanks to suit S and D range of pumps:

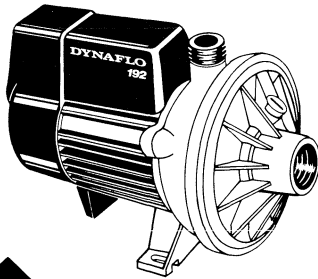
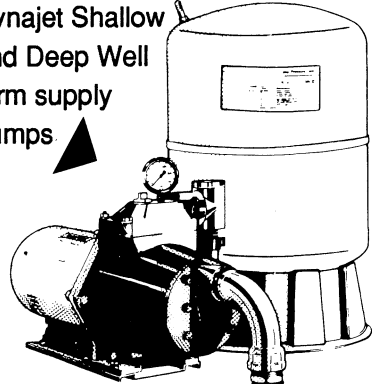
Supercell 15	53 litre capacity	\$410
Supercell 30	108 litre capacity	\$650

DAVEY PRODUCTS NZ LTD.



▲
Dynajet home
pressure systems

Dynajet Shallow
and Deep Well
farm supply
pumps ▲



▲
Dynaflo general purpose
centrifugal pumps
(eg. water transfer and dairy
washdown)



For more information contact your local dealer or

DAVEY PRODUCTS NZ LTD. P.O. Box 36444, Auckland 9
Ph: (09) 444 3622

Dynaflo Centrifugal Pumps

Model	litres per min	Max. Pressure	Price
XF 171	175	23 psi	\$345
XF 221	225	28 psi	\$395
XF 192	180	47 psi	\$485
6200	280	35 psi	\$660
6210	331	45 psi	\$720
6220 1	412	55 psi	\$1020
6220 3	412	55 psi	\$870
6230 3	518	59 psi	\$1165

Dynaprime Self-Priming Centrifugal Pumps

5410	212	25 psi	\$525
6420	310	32 psi	\$780
6440	321	44 psi	\$860

Portable - Engine Driven Portable Self-Priming Pumps

93224 2 Stage		Briggs and Stratton	\$1100
93206 2 Stage		Honda	\$1300
8185D Diesel		Robin	\$2850

Sump Pumps litres per min

SR 140	140	10 psi	\$340
SR 220	220	16 psi	\$450

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 Motorised	15 Bar (220 psi)	65 to 250	\$750 to \$2600
(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	\$1120
OJ700	1500W	20 to 70 psi	AP 80 tank	\$1600
OJ800	2400W	30 to 110 psi	AP 80 x 2 tanks	\$2410

Deep Well - add the following to the above pumps:

4/5/6" deep well injectors - \$190/\$210/\$280

General Purpose Water Transfer

Hi Flow Self Priming Moulded Centrifugal Pumps

Model	415	750W	31 psi	240v	\$370
	112	1100W	37 psi	240/415v	\$580/\$610
	143	2400W	60 psi	240/415v	\$1170/\$880

Dairy Wash Down

Hi flow Self Priming Cast Iron Centrifugal Pumps

Model	182	1500W	50 psi	240/415v	\$960/\$970
	183	2400W	59 psi	240/415v	\$1580/\$1100
	184	3800W	71 psi	415v	\$1450
	185	6000W	77 psi	415v	\$2070

Dairy Shed In-Place Cleaning

Cast Iron Centrifugal Pumps

Model	Davies K1/3250W	240/415v	\$570
	Davies K3/4680W	240/415v	\$668
	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 50/26	(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)	\$4315
	DBC 65/20	22 kW (24000gph @ 70 psi)	\$5030

Cast Iron Centrifugal Pump (Motorized Diesel Engine)

Model	380	68 psi max. flow	5900gph	4.5 HP	\$4000
	384	78 psi max. flow	10100gph	6 HP	\$5000

Power & Marine:

Honda Pumps

Model	WB 20 (water) 2 inch dia.	500 litre per min.	\$1095
	WB 30 (water) 3 inch dia.	1000 litre per min.	\$1295

Ag-Equipment Specialists Ltd: (1994 prices)

			<u>Male Six Spline</u>	<u>P.T.O. Kit</u>
Iota 17	17.21 litre/min.	242 psi	\$635	\$649
Kappa 50	48 litre/min.	568 psi	\$815	\$845
Kappa 75	75 litre/min.	568 psi	\$1120	-
Kappa 120	124 litre/min.	710 psi	\$1866	-

Williamson Industries Ltd:

Hi-Flo Rampumps

Model	Drive Pipe Size	<u>litres per second</u>	<u>Price</u>
Ramp600	125 to 150mm	18 to 27	\$6985
Ramp400	80 to 100mm	6 to 11	\$4785
Ramp250	50 to 65mm	2.2 to 4.1	\$3885
Ramp150	25 to 40mm	0.3 to 0.9	\$1895

Windmills

Jolly Windmill Company:

Windmill and pole

Diameter (m)	Price
1.8	\$1500
2	\$2450
2.4	\$3900
2.6	\$5200
3.0	\$6200

Pump, footvalve, and filter

Bore (mm)	Price
40 Household	\$490
40 High Pressure	\$650
50 High Pressure	\$750
65 High Pressure	\$950

Automatic Reservoir Shut-off Valve

25mm	\$95
32mm	\$220

Installation Costs:

Minimum installation charge if customer assists	\$250
Minimum installation charge if done solely by company	\$350

Wiremakers:

Hayes

51 mm Bore	Glandless Pump	\$2047
60 mm Bore	Glandless Pump	\$2174

2.18.5 Well Drilling

McMillan Water Wells Ltd (Canterbury):

Price for Drilling Wells

	Price per metre
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 4 inch - \$660 per metre for 12 inch.)

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 P.V.C. Pipe and Fittings

Marley N.Z.Ltd.:

'Watermaster' Low Density Polythene Pipe

<u>Internal Diameter</u>	<u>Price per 100m</u>
15/20/25 mm	\$ 46.80/\$ 88.40/\$ 110.50
32/40/50 mm	\$138/\$166/\$220

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	\$84.00
800 kpa (116 PSI)	20	\$158
650 kpa (90 PSI)	25	\$198
500 kpa (75 PSI)	32	\$247
450 kpa (65 PSI)	40	\$298
300 kpa (50 PSI)	50	\$393

Medium Density Polythene Pipe (Price per 100 metre coil) -

Class C

<u>Size(mm)</u>	<u>900kpa (130 psi)</u>	<u>Size (mm)</u>	<u>900kpa (130 psi)</u>
20	\$157	50	\$830
25	\$201	63	\$1297
32	\$334		

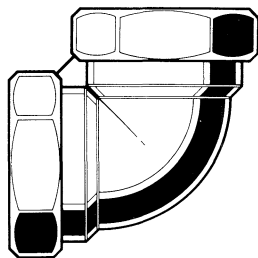
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PRODUCTS
FROM HANSEN**

HANSEN

THREADED FITTINGS

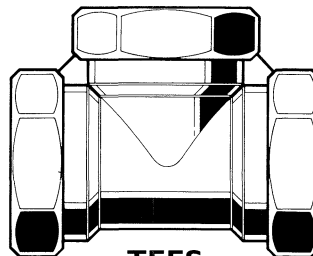


Quality
Endorsed
Company
ISO 9002



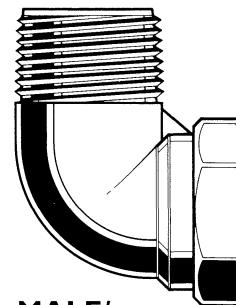
ELBOWS

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

Hansen Products (N.Z.) Limited:

Polythene Pipe Fittings:

Straight Couplings (HS)	15mm/20mm/25mm	\$3.01/\$3.71/\$4.62
	32mm/40mm/50mm	\$9.35/\$12.36/\$16.50
Male Couplings (HMS)	15mm/20mm/25mm	\$2.69/\$3.23/\$4.03
	32mm/40mm/50mm	\$6.88/\$9.08/\$12.15
Female Couplings (HFS)	15mm/20mm/25mm	\$3.39/\$3.92/\$5.11
	32mm/40mm/50mm	\$8.28/\$9.84/\$12.26
Reducing Straight Couplings (HRS)	20 x 15mm/25 x 15mm	\$3.92/\$5.05
	25 x 20mm/32 x 25mm	\$5.05/\$8.49
	40 x 32mm/50 x 40mm	\$12.36/\$16.50
Reducing Male Couplings (HRMS)	15 x 20mm/20 x 15mm	\$3.60/\$3.33
	20 x 25mm/25 x 15mm	\$3.98
	25 x 20mm	\$3.98
Tees (T)	15mm/20mm/25mm	\$5.81/\$6.88/\$8.87
	32mm/40mm/50mm	\$14.51/\$21.77/\$31.44
Bracket Elbows (HBE)	15mm/20mm	\$6.34/\$8.44
Reducing Tees (HRT)	15mm x 15mm x 20mm	\$6.88
	20mm x 20mm x 15mm	\$6.88
	25mm x 25mm x 15mm	\$8.87
	32mm x 32mm x 25mm	\$15.05
	40mm x 40mm x 32mm	\$22.36
50mm x 50mm x 32mm	\$30.53	
Bends (HB)	15mm/20mm/25mm	\$6.45/\$8.39/\$10.11
	32mm/40mm/50mm	\$13.22/\$17.50/\$25.80
Reducing Male Bends (HRMB)	20 x 15mm/25 x 20mm	\$6.56/\$9.46
	15 x 20mm/20 x 25mm	\$7.96/\$10.11
Reducing Female Bends (HRFB)	20 x 15mm/25 x 20mm	\$8.71/\$10.59
	32 x 25mm/40 x 32mm	\$12.79/\$15.27
	50mm x 40mm	\$17.68

2.18.8 Stock Water Supply Charges

Taranaki: (1994)

Connection fee to Council reticulated water scheme \$800 (includes cost of access pipe and water meter). Water supply levy is \$0.15 per cubic metre (includes servicing of water meter and pressure reducing valves).

Selwyn District - Canterbury

Stock, Water and Irrigation Supplies:

Ellesmere	per ha or part thereof minimum charge - nil	\$4.35
Malvern	per ha or part thereof minimum charge	\$4.90 \$52.00
Selwyn	per ha or part thereof minimum charge	\$3.60 \$31.00

The Council maintains all head works and main races, while on farm cleaning of races is left to the individual farmers.

2.18.9 Water and Discharge Rights

Canterbury Regional Council:

Scale of Charges for Administration, Monitoring and Supervision of Water and Discharge Rights

- (i) Major community sewage discharges to water, major discharges to land, water or air, major irrigation schemes a minimum charge of \$1,067.
- (ii) Community sewage discharges, significant discharges to land, water, or air, significant water diversion or abstractions a minimum charge of \$533.
- (iii) Applications for water permits, land use consents and minor discharge permits a minimum charge of \$267.
- (iv) Applications for land use consents to construct or alter a bore has a minimum charge of \$100 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	\$42950
Briggs Model 125 Roto Rainer and Hose Trailer	\$27985
Briggs Model 125 Linear Rain Turbine Drive and Hose Trailer	\$33985
Briggs Model 100 Roto Rainer and Hose Trailer	\$18950
Briggs Model 25 Roto Rainer and Hose Trailer	\$15450
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	\$5500
Briggs Model 100 Hose Trailer	\$4200

Hoses

Angus or Snaptile

65mm to 75mm	\$16.50 to \$24.95 per metre
89mm to 100mm	\$29.25 to \$38.50 per metre
114mm to 125mm	\$47.50 to \$50.00 per metre

Underground Mainline (PVC pipes)

	<u>Class B (per metre)</u>
80mm	\$6.25
100mm	\$8.50
125mm	\$10.90
150mm	\$13.88

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

See over page for B.R.Homersham Ltd sprinklers

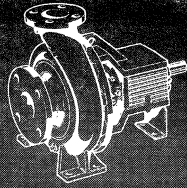
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**Thompsons
Kelly & Lewis**



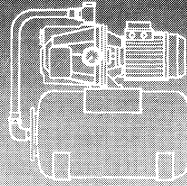
**TKL – robust,
reliable, efficient
centrifugal pumps**

**We also supply:
Borehole Pumps
Submersibles**

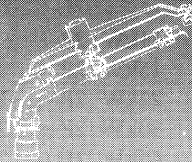


nocchi pumps

**Nocchi Pumps
Pressure Systems
Deep Well**



**Also:
Irrigation Equipment
Couplings
Sprinklers/guns
Pressure and Flow
Control Valves
Filtration Equipment**



HOMEFLOW

**Homeflow
Sewage macerator
Drainage pumps**

Call our Tollfree Helpline 0800 659 888

B.R. Homersham Limited



CHRISTCHURCH
Phone: (03) 358 8309
Fax: (03) 358 2516
Freefax: 0800 659 888

AUCKLAND
Phone: (09) 525 1489
Fax: (09) 525 1419

WELLINGTON
Phone: (04) 566 2962
Fax: (04) 566 5108

Pumps Irrigation Filters Valves Pumps Irrigation

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), (purge and brake fitted)*.

SX 5	20 mm x 50 m hose and sprinkler	\$1141
SX 20	38 mm x 67 m hose and sprinkler	\$3671
SX 150	63 mm x 200 m hose and sprinkler	\$12261
SX 250	75 mm x 200 m hose and gun	\$17906 *
SX 350C	88 mm x 200 m hose and gun	\$21290 *
SX 450B	100 mm x 200 m hose and gun	\$32284 *
SX 550A	115 mm x 200 m hose and gun	\$36625 *

Hoses

Angus Hose	44 mm to 75 mm (Black)	\$13.22 to \$26.05 per metre
	100 mm to 150 mm (Black)	\$40.19 to \$62.05 per metre

Sprinklers (each)

Naan 233/96	11 to 62 litres per min	\$33
5035/91	11 to 42 litres per min	\$18.80
254/96	18 to 124 litres per min	\$55.70

Pump Units Complete With Motor

Starline ISO Motorpumps

50 x 32	- 200	11kW	2P	7 litres per sec (92gpm)	@ 65m	\$3552
65 x 40	- 250	15kW	2P	9 litres per sec (120gpm)	@ 78m	\$4512
80 x 50	- 250	22kW	2P	20 litres per sec (264gpm)	@ 68m	\$5877
100 x 65	- 250	30kW	2P	28 litres per sec (370gpm)	@ 68m	\$7289
100 x 65	- 250	45kW	2P	35 litres per sec (460gpm)	@ 86m	\$10000
125 x 100	- 315	90kW	2P	60 litres per sec (790gpm)	@ 100m	\$19897

Duncan Industries DML:

(Rain-Beau Irrigators)

Mk I Travelling Effluent Irrigator	150 m cable	\$2550
Mk II Travelling Water Irrigator	150 m cable	\$2980
Hose Winder Reels (2 wheel type) for water irrigators		\$1784
Hose Winder Reels (3 wheel type) for water irrigators		\$1979

<i>Williams Engineering:</i>		
Travelling Effluent Irrigator	200m Cable	\$2063

B.R. Homersham Ltd.
Irrigation Accessories

Aluminium pipe - Standard Wall	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

2.18.11 Irrigation Equipment - Horticultural

James Hardie Pipelines:

Drip Emitters -

Snap Dripper 4 litres per hour	\$0.42
Veri-Flow Dripper (Adjustable Flow)	\$0.42
2 litres per hour Mini-Turbo dripper	\$0.50
4 litres per hour Mini-Turbo dripper	\$0.50
8 litres per hour Mini-Turbo dripper	\$0.65
4 litres per hour Turbo-key dripper	\$0.69
8 litres per hour Turbo-sc dripper (pressure compensating)	\$0.74

Mini-Sprinklers -

Waterbird 111, 10mm male base	\$2.35
Waterbird 111-PC 10mm male base (pressure compensating)	\$6.35
Waterbird 111-AA, 10mm male base (insect proof)	\$2.04
Model 1400, Full Circle, 10mm male base	\$9.78
Browning B500 Sprinkler	\$2.65

B.R. Homersham Ltd.

Plastic Sprinklers -

CR15 Cropwell Sprinkler	\$15.00
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Alister Bevin Products Ltd.

Driplines - Ro-Drip

	<u>Product Description</u>	<u>Length</u>	<u>Price</u>
2300-4	5 mil, 4" spacing	2300m	\$450
3800-8	5 mil, 8" spacing	3810m	\$495
300-4	8 mil, 4" spacing	300m	\$105
300-8	8 mil, 8" spacing	300m	\$100
2300-8	8 mil, 8" spacing	2300m	\$420
1200-8	15 mil, 8" spacing	1220m	\$340
1200-12	15 mil, 12" spacing	1220m	\$340

Irrigation Controllers -

<i>Orbit Watermaster - 4 station</i>	\$150
<i>Orbit Control Star - 8 station</i>	\$280
<i>Irritrol Dial Series - 11 stations</i>	\$775
<i>Irritrol Dial Series - 24 stations</i>	\$1750
<i>Mini-Click Rain Sensor</i>	\$75

Filters - Amiad

Filter	- 20mm black with flushing valve	\$49.00
Filter	- 25mm with moulded nylon screen	\$105.00
Filter	- 40mm with grooved disc element	\$255.00
Super-2	- 50mm with moulded stainless steel screen	\$475.00
Jumbo	- 50mm with grooved disc element	\$640.00
Plastic	- 80mm threaded with screen	\$950.00

Marley N.Z.Ltd.:

Micro-irrigation:- Lateral Tube to draft standard

<u>Diameter</u>	<u>Length</u>	<u>Price</u>
13 mm	1000 m	\$28.60
16 mm	1000 m	\$33.80
19 mm	1000 m	\$44.20

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 1994/95 season for community irrigation schemes in the South Island are as follows:

<u>Scheme</u>	<u>Charges</u>
<i>Amuri Irrigation Co:</i>	
- 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).
<i>Ashburton-Lyndhurst Scheme</i>	\$12/ha/year
<i>Mayfield-Hinds Scheme</i>	\$9/ha/year
<i>Morven, Glenavy and Ikawai Districts:</i>	
- Borderdyke	\$20/ha for 1st 600 mm plus 1.20/1000 m ³ over 600 mm
- Spray	\$12/ha
<i>Lower Waitaki</i>	\$11.00 per ha spray irrigation or \$5.50/1000m ³ for continuous supply.
	\$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: \$20/site/(depending on location) i.e dairy farm - ten readings per season (\$200 per season) cropping farm - twenty readings per season (\$400 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:

1. Earthworks:

Cost varies with the amount of earth moving involved but average cost for Canterbury conditions would be \$850 to \$1100 per ha.

This cost includes: All levelling
Construction of levees
Construction of supply and head races.

2. Structures:

Concrete Dams

Depends on flow rate of water and will vary depending on water flow but average \$200.00.

Sills

Standard sills (2.5 m boards) cost between \$55.00 each.

There are various other designs which would generally be more expensive.

Weirs

Average \$250.00 to \$350.00 each.

Access Crossings

For a 6 metre crossing, cost including installation and pipes:

300mm diameter pipe	\$75.00/metre
750mm diameter pipe	\$240/metre

Head walls for a 6m crossing, pipe diameter 750mm: \$200/each

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 the cost of drainage on dairy farms ranges from about \$1900 per hectare (150mm tile mains) to about \$2600 per hectare (includes some 225mm tile mains). These prices include the cost of the plastic drainage pipe and of mole ploughing. The latter costs about \$125 per hectare.

Drainage on sheep farms generally costs less because fewer pipes are usually required depending on the fall of the land. All inclusive cost is about \$1200 to \$1400 per hectare.

Subsoiling Cost - Usually about \$50 a hectare.

Southland Brick & Pipe Ltd:

Southtile Field Tiles

<u>Diameter</u>	<u>Length</u>	<u>Per unit for 100</u>	<u>Per unit per 1000</u>
75 mm	300 mm	\$0.77	\$0.64
125 mm	300 mm	\$1.10	\$1.00
190 mm	300 mm	\$2.27	\$2.06
100 mm	600 mm	\$1.78	\$1.56
150 mm	600 mm	\$3.17	\$3.17
225 mm	600 mm	\$6.60	\$6.60

Southtile Junctions	
100 mm/125 mm	\$11.38/\$11.73
190 mm/225 mm	\$16.04/\$18.09

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:

Novaflo/Nova Coil

<u>Diameter</u>	<u>Lengths</u>	<u>\$ per metre</u>
65 mm	30 to 150 m	\$3.73
110 mm	30 to 100 m	\$5.76
160 mm	45 m	\$11.50

Fittings

160 x 45	Polythene junction 45°	\$24.97
160 x 110 x 45	160 x 110 Polythene junction 45°	\$24.51
110 x 45	Polythene junction	\$18.07
160 x 110	Polythene reducer	\$11.63

Concrete Culvert Pipes

<i>McKendrys:</i>	150 to 375 mm x 900 mm	\$21 to \$36
	450 to 900 mm x 900 mm	\$42 to \$90

<i>Cement Products Ltd:</i>	150 to 300 mm x 915 mm	\$25.00 to \$31.00
	380 to 600 mm x 915 mm	\$43 to \$64

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):

20/12 gravel	\$25 per cubic metre in paddock
2" gravel	\$25 per cubic metre in paddock

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, 0.1ha	\$1000
Fencing, pipework and polythene sealing	\$1000
Plus :	
Pump and wiring if required from milking shed	\$2500
Pump pit	\$400
	<hr/>
Total Capital Costs	\$8900
Running Costs:	
Weed spray on aerobic pond	\$50
Minor labour requirements:	
Unblocking and repairing pipes	\$150
Cleaning (every 2 years)	\$450
	<hr/>
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
Land retired (allow)	\$500
Plus:	
Pump and wiring if required from milking shed	\$2500
Pump pit	\$400
	<hr/>
Total Capital Costs	\$6400
Running Costs:	
Minor repairs and maintenance	\$100
Annual cleaning	\$900
	<hr/>
Total Running Costs	\$1000

(iii) Spray Irrigation

Major Capital Cost Items:	
Pump (often needs larger pump than shed to pond model)	\$2500
Wiring	\$1000
Pump pit	\$400
Spray irrigator, self-propelled	\$3200
PVC main lines 50mm alkathene to sprayer 500m	\$900
Fittings and hydrants	\$500
	<hr/>
Total Capital Costs	\$8500
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: Dairy Exporter June 1992

2.18.17 Septic Tanks

Fibreglass

Ribtec: (Price includes delivery)

3300 litre \$1395

Concrete

Cement Products Ltd:

2700 litres \$644

McKendrys:

3300 litres \$675

Humes:

South Island
(without fittings)

North Island
(fittings included)

2730 litre

\$667

\$792

3300 litre

\$965

\$910

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.)

	<u>Price per metre</u>
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 - 1993/94 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
Note: this cost does not include the Energizer unit and accessories.
(see Section 2.19.8)
- (ii) 5 electric wire, batten and insulator fence on undulating to hill country, at 5 metre spacings
Cost per km = \$1407
Note: this cost does not include the Energizer unit and accessories.
- (iii) 5 wire (electric) insultimber fence on undulating to hill country. 1 post and 3 droppers per 16 metres.
Cost per km = \$1595
Note: this cost does not include the Energizer unit and accessories.

Cost of Materials for Deer Fences: Updated by Ross Naylor, "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 @ \$12.70	\$1016.00
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 @ \$3.00	\$9.00
2.5mm H.T. wire	1200m @ \$0.08/m	\$96.00
150mm x 1900m netting 13 line	400m @ \$395.95/100m	\$1583.80
Gate 3.66 x 1900mm	1 @ \$184.45	\$184.45
Staples 4mm	12 kg @ \$3.00	\$36.00
Gudgeons lock through post	1 @ \$12.87	\$12.87
Gudgeon through post	1 @ \$8.97	\$8.97
Gate fastener and staple	1 @ \$4.54	\$4.54
	per 400 metres	\$3120.93
	Materials Cost per metre	\$7.80
	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 @ \$12.70	\$381.00
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 @ \$3.00	\$27.00
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 @ \$2.85	\$11.40
Gates	4 @ \$184.45	\$737.80
Staples 4mm	2 kg @ \$3.00	\$6.00

continued over page

Gudgeons lock through post	4 @ \$12.87	\$51.48
Gudgeons through post	4 @ \$8.97	\$35.88
Gate fasteners and staple	4 @ \$4.54	\$18.16
		<hr/>
	cost per 1000 m	\$2366.85
	Cost per metre	\$2.36
	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 @ \$12.70	\$381.00
Droppers 1.52m insul timber	100 @ \$8.50	\$850.00
Strainer posts 2.7m x 200mm	9 @ \$29.95	\$269.55
Stays 2.7m x 115mm	9 @ \$12.70	\$114.30
Stay blocks 200mm x 50mm x 0.5m	9 @ \$3.00	\$ 27.00
2.5mm H.T. wire (648m/coil)	4.7 @ \$53.00/coil	\$249.10
Wire netting (800mm x 300mm, 7 line)	1000m @ 134.25/100m	\$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 @ \$2.85	\$11.40
Gates 3.66m x 1900m	4 @ \$184.45	\$737.80
Staples 4mm	3 kg @ \$3.00	\$9.00
		<hr/>
	cost per 1000 m	\$4023.02
	Cost per metre	\$4.02
	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	\$65.00
	4.00mm (No. 8) - 25 kg	253 metres	\$56.70
Hispan: (High Tensile Steel)			
	2.00mm - 25 kg	1013 metres	\$74.10
	2.50mm - 25 kg	648 metres	\$53.15
	3.15mm - 25 kg	408 metres	\$63.35

Span 7 (High Tensile Cable)		Price Per Metre	
		250m coil	500m coil
4.8mm		-	\$0.38
6.0mm		\$0.53	\$0.52
9.5mm		\$0.98	-
Barbed			
Iowa Pattern	75 mm spacings	225 metres (approx)	\$74.75 per kg coil
	150 mm spacings	255 metres (approx)	\$74.74 per kg coil
Reverse Twist HT	RT 150		\$90.95 per 500 metre
<i>Hurricane:</i>			
Barbed Wire	Standard 2.5mm, 75 and 150mm	25kg reel	\$81.80 per reel
	Reverse Twist 1.6mm HT		
	HTR 100mm/150mm	500m reels	\$99.30 per reel
Lacing Wire	2.0mm, 10kg coils		\$35.36
	1.6mm, 10kg coils		\$41.50

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/2.4m/2.7m	\$7.38/\$10.32/\$11.87
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

Stay Blocks -

200mm x 75 x 0.5m	\$5.25
200mm x 50 x 0.5m	\$3.51
150mm x 50 x 0.5m	\$2.53

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

Cyclone:

Lightning Fence Droppers

Dimensions 914 mm to 1003 mm \$113/100 to \$146/100

Gallagher:

Insultimber

Post, No. 1 1520 x 38 x 38mm \$6.09

Post, No. 2 1380 x 38 x 38mm \$5.04

Droppers 940 x 38 x 26mm \$2.48

Broken Hill Proprietaries: (A. Balfours, Tauranga) - 1994 prices

Waratahs

1.65m \$6.48 each

1.80m \$6.71 each

Hurricane:

Fencing Standards (Waratah)

Price/Waratah

1650mm \$5.58

1800mm \$9.16

Cement Products Ltd:

Reinforced Concrete Posts

	<u>Height</u>	<u>Width</u>	
For rails or wire	1.60m	76mm x 76mm	\$13.33
Bolthole type for rails	1.83m	114mm x 102mm	\$16.89
Farm post 7 or 8 wire	1.80m	102mm x 102mm	\$13.33

Strainers

	<u>Dimensions</u>	<u>Bare Post</u>	<u>Including Stay Assembly</u>
Light	1.9m x 140mm x 138mm	\$23.11	\$49.78
Medium	2.28m x 134mm x 142mm	\$32.89	\$59.55
Heavy	2.45m x 185mm x 175mm	\$39.11	\$65.78
Angle	1.9m x 152mm x 152mm	\$27.56	\$54.22

2.19.4 Gates

Wooden

McVicar:

Hurdles: 1.8 m; 2.1 m \$29.82; \$31.82

Gates: 3.6 m; 4.2 m \$81.60; \$85.56

Steel

Wiremakers:

Farm Gates: Economy	3.05m to 4.27m	\$94.75 to \$100.00
Deer Gates: 1.9m high	3.05m/3.66m/4.27m long	\$162/\$184/\$199

Hurricane:

<u>Farm Gates</u>	<u>Length (m)</u>	<u>Price</u>
Sheep Gates	3.05 to 4.25	\$99 to \$103
Cattle Gates	3.05 to 4.25	\$125 to \$155
Stockmaster Gates	3.05 to 4.25	\$156 to \$220
Barred Gates	3.05 to 4.27	\$150 to \$189
Deer Gates - 1900mm	3.05 to 4.25	\$177 to \$218
- 1550mm	3.05 to 4.25	\$169 to \$215

2.19.5 Wire Netting

Wiremakers: Cyclone

per 100m Roll

Twinlock Field

9 line 980 mm high, 300 mm spacings	\$180
8 line 900 mm high, 150/300 mm spacings	\$204/\$157
8 line 800 mm high, 150/300 mm spacings	\$208/\$153
7 line 900 mm high, 150/300 mm spacings	\$188/\$151
7 line 800 mm high, 150/300 mm spacings	\$186/\$134
6 line 700 mm high, 300 mm spacings	\$124
5 line 525 mm high, 150/300 mm spacings	\$129/\$98

Tightlock Deer (100m rolls):

17 line 1900 mm high, 150/300 mm spacings	\$336/\$457
15 line 1550 mm high, 150 mm spacings	\$415
13 line 1900 mm high, 150/300 mm spacings	\$395/\$275
11 line 1550 mm high, 150/300 mm spacings	\$320/\$238

Top-up Fence:

4 line 600 mm high, 600 mm spacings	\$130
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Tightlock Field Fence (100m rolls):

9 line 900 mm high, 150/300 mm spacings	\$194/\$165
8 line 900 mm high, 150/300 mm spacings	\$225/\$165
7 line 900 mm high, 150/300 mm spacings	\$215/\$154

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	\$220/\$273
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Hurricane:

High Tensile Boundary Fence	<u>per 100 metres</u>
Staytight	
7 and 8 line, 915 mm, 150/300 mm spacing	\$169/\$53
Hinge Joint	
7 and 8 line, 915 mm, 150/300 mm spacing	\$164
8 line, 815 mm, 300 mm spacing	\$158
7 line, 740 mm, 300 mm spacing	\$140
Economy	
6 line, 710 mm, 300 mm spacing	\$210 per 200 m

High Tensile Deer Fence

Staytight	
17 and 13 line, 1905 mm, 150/300 mm spacing	\$445/\$282
11 line, 1550 mm, 150/300 mm spacing	\$244/\$349
Hinge Joint	
13 line, 1905 mm, 150 mm spacing	\$410
12 line, 1520 mm, 230 mm spacing	\$331
11 line, 1550 mm, 150 mm spacing	\$321
Economy	
13 and 11 line, 1900/1550 mm, 300mm spacing	\$437/\$387

2.19.6 Fencing Tools and Equipment

Straining Equipment

Wiremakers:

	<u>Price per Item</u>
Hayes Wire Strainers -	
Hayes Permanent 302 (Pack of 25)	\$2.95
Wire Tightener 500 (Pack of 50)	\$1.65
Tightening Handle - Permanent	\$4.15
Wire Tightening Handle	\$6.70
Chain Wire Strainer	\$57.10
Tension Indicator	\$18.35
Sure Strain Chain Wire Strainer	\$70.00
Spring Clip Permanent Wire Strainer/Tightener	\$2.25

Hurricane:

Boundary Fence Clamp	\$88.10
Deer Fence Clamp	\$140.10
Pull Down Tool with Chain	\$58.65
Pull Down Tool without Chain	\$12.48

<i>Stafix:</i>	<u>Price per Item</u>
Stafix Insulated	\$4.16
Stafix Uninsulated	\$2.73
Daisy - Insulated	White \$4.55
	Black \$4.16
Daisy Power Handle	\$10.01

Post and Standard Drivers

Wiremakers:

Post Rammer Pipe or Wooden Handles	\$22.31
Standard Driver 352 Tubular	\$52.44

Fairbrother Industries

Kinghitter Post Drivers	180 kg weight	From \$3344
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Post Hole Diggers

Aitchison Industries: - Mate Post Hole Diggers

100cc motorised powerhead	\$1149
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Auger (Length 76 cm)

Single blade 1500 series and Double blade 1700 series

Size

50.8/76.2/101.8/127.0mm	\$152 to \$206
152.4/177.8/228.6/254mm	\$223 to \$294

Gallagher: Post Hole Digger (Auger extra)

Augers	150mm to 600mm (6" to 24")	\$2195	\$395 to \$1325
	Extension 300mm (12")	\$110	

Wire Reels

<i>Wiremakers</i>	Single tier standard spike	\$64.00
	Adjustable/collapsible Y foot	\$76.10

2.19.7 Cattle Stops

C & F Industries:

Type 50, 3.6m x 2.1m Heavy Duty	\$1406
3.6m Concrete Surround	\$545

Humes

2.30m x 1.2m	\$338
2.30m x 1.8m	\$502

2.19.8 Electric Fence Energisers

Gallagher:

Mains Powered	Energiser M1500	\$489
Battery Powered	B600 Super Battery	\$466
Solar Powered	B150 Solar Kit 10 watt	\$583

2.19.9 Insulators

Stafix:

		\$ per item (bulk)
Diamond	- Pinlock	0.27
	- Claw	0.29
Wooden Post		0.26
Rod Insulator 10mm		0.33
Nail Insulator		0.26
End Strain	- Black	0.55
	- White	1.03
Watershed Insulators		0.22
Tube -100mm		0.16
Pigtail Insulator		0.60
Outriggers	-250mm with Pinlock/Claw Insulator	1.69
	-Moulded outtrigger	1.30

Gallagher:

Plastic		
Super Strain - white		\$0.84
WP, Long Life wooden post		\$0.36
Pinlock wooden post		\$0.25
Pinlock Y steel post		\$0.33
Polytape insulator for polytape, up to 40mm		\$2.63

2.19.10 Electric Fence Reels and Wire

Stafix:

Stafix Self Insulated Reel		\$27.43
Three in one Reel pre-wound 3 x 200, 6 wire live strand		\$133.90
Mounting Post (Self Insulating) to fit 1 to 3 reels		\$17.81
6 wire "Livestrand Super 6" 200/350/500m spools	\$14.17/\$26.91/\$34.97	
Hot Tape - 200/400m	\$24.96 to \$49.92	
Hot Tape - 50 m Pick a pack 45mm tape		\$23.40
"Flexinet" Netting	Sheep 50m Coils	\$153
	Horse/Goat	\$156
	Rabbit	\$163
Power winder		\$129

Wiremakers: - Electric Fence Wire

2.00 mm/1.60mm (Soft)	\$32.20/\$37.90 per 10 kg
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Gallagher:

Reel Strip Grazing	-Small/Medium	\$24.21/\$35.00
	-Large	\$50.88
Reel Stand - Deer	(1 to 4 reels)	\$24.40
Lead connectors	Single/Multi reels	\$3.78/\$10.29
Polywire - Ultra white,	6 strand, 200/500m	\$11.11/\$28.00
Turbo Wire - White XL,	9 strand, 200/400m	\$25.33/\$48.44
Polytape - Orange/white,	5 strand, 200m	\$20.00
Turbo tape - White,	200/400m	\$26.22/\$51.11

2.19.11 Electric Fence Standards/Outriggers

<i>Stafix:</i>		<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-\$7.38

Gallagher:

		<u>Each</u>
Tread in polymer multiwire		\$2.22
Fibreglass:		
Post 1200 x 10mm (White)		\$2.26
Post 1370 x 13 mm (White)		\$4.41
Post 1500 x 10 mm (Orange)		\$2.84
Post 2000 x 10 mm (Orange)		\$3.78
Post 2000 x 13 mm (White)		\$6.62
Quick Clips	10 mm/13 mm	\$0.15 to \$0.21
Pressure Plate (for 10 and 13 mm)		\$0.53
Cap, Driver		\$7.08

Wiremakers:

Hayes Pigstail:		<u>Each</u>
Type K three pigstails		\$4.25
Type S one pigstail		\$1.60
Type T two pigstails		\$2.90

Electric Fence Outriggers:

150/400mm top of post (bundles of 25)		\$32.90/\$38.34
150/400mm side of post (bundles of 25)		\$32.90/\$38.34

Agrisales NZ Ltd:

Fibreglass Fence Standards:Posts	10mm x 1.2m	\$2.31
	13mm x 1.2m	\$4.40
	10mm x 2m	\$3.88
	13mm x 2m	\$6.44

2.19.12 Electric Fence Cable

Gallagher: - Cable, Undergate 1.6 mm, 50m Double Insulated \$17.73

Stafix:

Underground Cable 50m x 1.6mm; and 50m x 2.5mm \$22.56 and \$41.99

2.19.13 Electric Fencing Accessories

Gallagher:

Testers -	Neon	\$21.95
	Meter, Digital (D.V.M.)	\$52.44
	Live lite tester	\$27.67
	Tumblewheel	\$28.88
	Rapid wire tightener	\$93.98
Batteries -	Dry Cell	\$51.45
	Low loss	\$263.55
Earthing Equipment:	Earthing stake, Galvinised pipe, 2m	\$13.65
	Cut out switch	\$6.18
	Gallagher Super Earth kit	\$68.25

Stafix:

Cut out switches		\$7.54
	- heavy duty	\$8.19
Gate Breaks	- standard	\$3.90
	- spring gates	\$10.40
Tester		\$71.50

2.19.14 Staples

Hurricane:

Plain	4.00 to 2.00mm diameter	\$81 to \$95 per 25kg case
Barbed	4.00 to 2.80mm diameter	\$84 to \$93 per 25kg case
Concrete Post Staples		\$94 per 20kg bag

2.20 MACHINERY, IMPLEMENTS AND PLANT

Note: 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)	\$34,000	\$22,600 to \$45,000
38 to 52 kW (51 to 70 HP)	\$45,000	\$30,000 to \$60,000
53 to 75 kW (71 to 100 HP)	\$59,000	\$37,900 to \$99,500
Over 75 kW (over 100 HP)	\$110,000	\$82,000 to \$177,300

Farm Bikes (see Section 2.20.4)

2 wheel	\$5100	\$3550 to \$7400
4 wheel	\$9300	\$5695 to \$11,500

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	\$26,000	\$19,000 to \$42,000
4WD vehicles	\$40,000	\$25,000 to \$64,000

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 Section 2.20.5)		
Drum or Disc	\$10,000	\$4550 to \$35,000
(these may have a conditioner attached or as an optional extra)		
Mower Conditioners	\$32,000	\$8000 to \$49,800
Toppers/Slashers	\$5000	\$1800 to \$8600
Hay Rakes (see Section 2.20.6)	\$10,000	\$1700 to \$45,500

	<u>Average Price</u>	<u>Range</u>
Hay Balers (see Section 2.20.6)		
Conventional	\$35,000	\$32,000 to \$39,000
Big balers - Round	\$42,000	\$35,000 to \$54,000
- Square	\$115,000	\$89,000 to \$136,000
Ploughs (see Section 2.20.15)		
Depending on the number of furrows and tractor mounting	\$12,000	\$3700 to \$25,000
Discs (see Section 2.20.15)	\$7300	\$5900 to \$12,000
Harrows (see Section 2.20.15)	\$1000	\$400 to \$4400
Power Harrows	\$25,000	\$18,000 to \$34,000
Rollers (see Section 2.20.15)		
Heavy rollers	\$12,000	\$8000 to \$16,000
Cambridge rollers	\$3800	\$2800 to \$5600
Drills (see Section 2.20.17)	\$17,000	\$9500 to \$39,000
<u>2.20.3 Tractors</u>		
<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)		\$42,918 to \$77,150
4 Wheel Drive		
37.5 kW (51HP) to 51.8 kW (70HP)		\$37,320 to \$57,974
55.5 kW (75HP) to 77.0 kW (100HP)		\$51,499 to \$86,951
110 HP to 125 HP		\$97,982 to \$104,277
170 HP to 240 HP		\$147,536 to \$177,299
<i>J.I. Case:</i>		
Agricultural -		
2 wheel drive	53 to 84 HP (incl. cab models)	\$35,000 to \$58,000
	100 HP A/C Cab	\$83,500
4 wheel drive	46 to 72 HP (incl. cab models)	\$37,500 to \$60,000
	84 to 100 HP A/C Cab	\$65,000 to \$83,500
	160 to 255 HP	\$112,500 to \$168,000
Horticultural -		
2WD/4WD	64 HP	\$40,375 to \$45,312

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you want to work**

**FORD GENESIS™
70 SERIES**

- 170 to 240 hp range
- Full 16x9 Powershift transmission with straight line shuttle and programmable shifting
- Unrivalled operator comfort and moveable driver console
- SuperSteer™ front axle option



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GENESIS
70 SERIES

1-800-4-A-FORD



FORD

<i>John Deere:</i>		
	2WD	4WD
46 to 68 HP (no cab)	\$32,244 to \$37,056	\$35,881 to \$41,116
83 to 98 HP	\$63,437 to \$74,368	\$73,642 to \$84,574
110 to 120 HP		\$94,212 to \$103,419
150 to 170 HP	\$111,922 to \$120,842	\$126,469 to \$135,388

<i>Kubota:</i>			
B series -	4WD	17 to 24 HP	\$16,690 to \$22,559
GRAND L series -	2/4WD	38 to 45 HP	\$28,500 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

<i>Iseki:</i>		
TA Series Models -	2WD	4WD
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

<i>Fiatagri:</i>		
Agricultural		
66 Series -	2WD	4WD
45 to 80 HP	\$32,109 to \$44,831	\$36,720 to \$51,963
93/94 Series -		
65 to 85 HP	\$46,587 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 \$56,790	\$41,633 to \$60,784

<i>Massey Ferguson:</i>	2WD	4WD
45 to 62 HP Rops	\$28,900 to \$38,600	\$41,100 to 44,800
45 to 62 Cab	\$47,900	\$45,000 to \$54,500
71 to 104 HP Cab	\$56,500 to \$96,900	\$65,500 to \$104,500
115 to 171 HP Cab		\$113,500 to \$139,900

<i>Same:</i>		
60 to 80 HP Rops	\$44,800 to \$49,900	
80 to 158 HP Cab	\$59,900 to \$135,000	

<i>Belarus:</i>	2WD	4WD
BX Series Models		
70 to 90 HP	\$29,990 to \$35,450	\$34,900 to \$41,250

2.20.4 Farm Bikes and Bike Trailers

<i>Honda:</i>		
2 Wheeler 100 to 250cc		\$3551 to \$7376
4 Wheelers 300 to 350cc		\$8176 to \$9684

<i>Suzuki:</i>		
2 Wheeler TF 125X Mudbug		\$3995
Dual Purpose TS 125 to DR 350		\$3995/\$8795
4 Wheeler - 2WD 160P/250P		\$5695/\$8795
- 4WD 250P/300XP		\$10,595/\$11,495

<i>Yamaha:</i>		
2 Wheeler - AG 100 to 200 cc		\$3728 to \$4800
4 Wheeler - 2x4 250 to 350 cc		\$7552 to \$8616
- 4x4 350 to 400 cc		\$9772 to \$11,544

<i>Kawasaki:</i>		
2 Wheeler - KLF 250		\$6932
4 Wheeler - 2x4 300cc		\$8129
- 4x4 300 to 400 cc		\$9900 to \$11,057

Farm Bike Trailers

<i>Smiths Attachments:</i> - (freight paid)		
All trailer prices include balloon tyres and ball coupling.		
4' x 3' to 8' x 4' trailer (galvinised)		\$800 to \$1800
Stock Crate for trailers (galvinised)		\$231 to \$450
Grain feeders 5 bag capacity		\$786 to \$1320
Round bale feeder		\$1507 to \$2333

2.20.5 Mowers and Toppers

Kuhn:

GMD 44 Multi-Disc Mower	- Hydraulic	\$8300
GMD 500		\$10,480
GMD 600		\$11,700
GMD 66		\$10,590
GMD 77 Multi-Disc Mower	- Heavy Duty Disc	\$12,350

Claas:

Rotary Mowers	<u>Cutting Width</u>	<u>Without Conditioner</u>	<u>With Conditioner</u>
WM165RN 2 Drums	1.65 m	\$7950	\$8650
Wm210RN 2 Drums	1.65 m	\$13,400	\$9250
WN 300 4 Drums	3.04 m	\$34,990	\$27,750

Lely:Modular Disc Mowers

	<u>Discs</u>	<u>Cutting width</u>	<u>Price</u>
165	4	1.65 m	\$7575
205	5	2.05 m	\$10,175
240	6	2.4 m	\$11,975
280	7	2.8 m	\$13,250
320	8	3.2 m	\$14,750

Vicon:

CM Disc Mower 3 Blades/Disc	2.15 to 2.4 m	\$10,990 to \$11,990
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Reese Engineering: 1994 prices

1600 Mini Twin 1.6 m cut	\$5240
2070 Standard Twin 2.07 m cut	\$6270
2400 Maxi Twin 2.4 m cut	\$7350
2070 W Extended Frame Model	\$6420
3100 trailed mower 3.1 m cut	\$13,520

Read:

Morra Mowers

5 Disc 2.09m (6'11")	\$7850
6 Disc 2.45m (8' 1")	\$8950
Twin Drum 1.8m (6'0 ")	\$6250

<i>Masport:</i>		<u>Cutting width</u>	<u>Price</u>
Suburban 14	- Hydrostatic	1070 mm	\$4152
	- Manual	1070 mm	\$3739
Suburban 16	- Hydrostatic	1220 mm	\$6538

PZ Mowers:

Drum mower	1.65 m to 2.12 m	\$7990 to \$12,990
Kevlar beltdrive disc mower	2.0 m to 2.4 m	\$10,750 to \$11,950
6 Disc Mower	2.15 m	\$9990
6 Disc Mower	2.4 m	\$10,990

Mower Conditioners

Kuhn:

FC 202/FC 280 F	\$17,060 / \$23,940
FC 300 GD/FC 350 GD	\$37,495 / \$39,970
FC 301 GD/FC 202 R	\$43,410 / \$17,820

Tulloch:

Krone AM 242z	2.4 m, 3 point linkage mower conditioner	\$19,400
JF CMT 2800C	3 Drum mower conditioner	\$31,000

Vicon:

AMS 2400	Three point 2.4m cut - Auger and Flail	\$19,990
AMS 2400	Trailing 3.2m cut - Crimper	\$37,990
GMR 2800	Trailing Disc Mower Conditioner (Crimper)	\$43,990
Gmr 3200	Trailing 3.2m cut - Crimper	\$42,990

New Holland:

411	Discbine	\$39,885
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<i>Reese Engineering:</i>	UFO, Conditioner 2.07m cut	\$8050
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John Deere:

1360	mower conditioner 3 m cutting width	\$30,102
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Toppers/Slashers

AgMark:

Trojan Rotary Slasher-Trojan 1500	(60"cut)	\$2445
Trojan Rotary Slasher-Trojan 1500HD	(60"cut)	\$3695
Crusader Rotary Topper-Crusader 2300	(90"cut, including skids)	\$5195
Crusader Rotary Topper-Crusader 3100	(120"cut, including wheels)	\$8595

Giltrap Engineering: (Includes freight)

	South Island	North Island
1.2m to 1.5m cutting width	\$2100 to \$2850	\$1900 to \$2650
2.3m to 3.0m cutting width	\$5850 to \$8200	\$5600 to \$7800

Howard:

LD Rotoslasher (2 blade) 45 HP required		\$1839
MD Rotoslasher (4 blade) 27 to 70 HP required		\$2466 to \$3173
HD Rotoslasher (4 Blade) up to 90 HP required		\$4247 to \$4556
EHD Rotoslasher (2 Blade)		\$5655 to \$7870

2.20.6 Hay Making Equipment

(see *Section 2.20.11* for silage wagons etc.)

Hay Rakes and Tedders

Lely: Lotus Tedder/Windrowers

300 Combi 2 Rake Wheels, 3m working width	\$5550
600 Stabilo Combi 4 Rake Wheels, 6m working width	\$15,950

<i>Claas:</i> 3 point linkage tedders - 3.8 to 5.40 m	\$8600 to \$12,675
Pull type - 5.40 to 7.40 m	\$12,370 to \$15,600

Kuhn:

Gyrorake GA 300/GA 4101	\$5760/\$9040
Gyrorake GA 4101 GT	\$9440
Gyrotedder GF 5000	\$8220 to \$9020
Gyrotedder GF 7000 T	\$13,030

Read: Otma Mounted Hay Rakes

4 Reel Single Arm	\$1760
5 Reel Single Arm	\$1980
8 Reel Vee Rake	\$4090
10 Reel Vee Rake	\$4480

New Holland:

258 Rollabar	\$11,092
216 Vee Rake	\$45,535

PZ:

Haybob 300R Rake - centre raking	\$5990
HS 360R Rake - side raking	\$9990
Fanex 500A Tedder fixed or lift link drawbar	\$9975
Fanex 642 DH Tedder Cat 1 & 2	\$15,990
CZ 340 Silage Rake	\$9990
CZ 450 Silage Rake	\$14,990
CZ 600 Silage Rake	\$24,990
Andex 301 to 381 Rake	\$5990 to \$10,490

Big Balers - Round

Hesston: Belt type constant density

5850 Round baler 4' x 5'	\$41,826
5880 Round Baler 6' x 4'	\$49,026

<i>John Deere:</i> 435 Round Baler 6' x 4'	\$36,879
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J.I. Case:

8455 Round baler 4' x 6'	\$40,000
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Ford New Holland:

640 and 650 Round baler 4' x 6' Roll-Belt	from \$44,891
855 Round baler 5'6" x 5'5"	\$47,165

Vicon:

RV 126 Standard 1.4 m Pickup	\$43,250
RV 126 Standard 1.4 m Pickup, netwrap	\$49,590
RV 126 Wide Pickup 2.00 m, netwrap	\$53,990

Tulloch:

Gehl RB1470 Variable chamber round baler (max 4' x 5')	\$40,485
Gehl RB1310 Fixed chamber 4' x 4'	\$33,500
Gehl RB1670 4' x 6' variable chamber belt baler	\$45,500

Claas: Round Balers

Rollant 46 Bale chamber 1.2 m x 1.2 m	\$41,000
Rollant 66 Bale chamber 1.5 m x 1.2 m	\$44,000

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

<i>Welger</i> : roller type open chamber	
RP 200 Net wrap 4' x 6' with bale ejector, auto chain lubricator	\$53,933
RP 200 Twine tie 4' x 6' with bale ejector	\$37,394

Big Balers - Square

Vicon: CB 8080 Farmer \$89,000

Claas: Quadrant 1100 / 1200 \$93,500/\$136,750

J.I. Case: 31" x 34" rectangular \$107,000

Conventional Balers

Ford New Holland: NH 570 Rectangular Baler From \$37,195

Welger: AP 630 with hydraulic drawbar shifting device \$39,450

Tulloch: Gehl 14x18 chamber conventional baler \$32,800

Bale Wrappers

Duncan Industries Ltd:

DML model BW2 balage wrapper - ground roll wrapper (towable type) \$4950

Elho: (1994 prices)

Silage bale wrapper 520 - 3 point mounted (with monitor) \$22,850

Silomatic 1010/1210 (trailed) \$26,920 / \$30,350

Baling Twine

Donaghys:

Freerun sisal twine - 2400 metres \$61.33

Big Round synthetic twine - 8000 metres \$160.00

Extra Bulky synthetic twine - 4800 metres \$109.30

Baling Wrap: see *Section 2.20.11*.

Hay Handling Equipment

Read:

Round Bale Feeder - Three point linkage sidewinder \$5860

- Two bale trailing sidewinder \$8750

<i>Giltrap Engineering:</i>	North Island	South Island
Round Bale Feeder	\$4600	\$4750
 <i>Duncan Industries Ltd:</i>		
FM1200 Single bale side feeders		\$4370 to \$5070
Multi-bale feeders 2 to 3 Bales		\$7990 to \$8830
Three point linkage bale fork	- 1200 kg capacity	\$750
	- 1600 kg capacity	\$995
 <i>Quin Baleboy's Ltd:</i>		
3 point Twin big bale spikes		\$740
3 point Twin big bale soft nosed spikes		\$650
Quin big bale handler		\$1690
 <i>Taege Manufacturing:</i>		
Bale feeder - 2 bales with shredder		\$8580
Silage grab		\$2500
 <i>Calder Stewart Industries Ltd:</i>		
Round hay feeder		\$475

2.20.7 Spray Equipment

Macagri: (1994 prices)

Hardi Spraying Equipment

Sprayer for 4 Wheeled Motor Bikes		
100 litre capacity		\$895
Three point linkage sprayer		
400 litre tank, 6 metre boom, pump to suit		\$2755
plus hoses and spraygun		\$3455
800 litre tank 10 metre boom, pump to suit		\$4347
plus hoses and spraygun		\$5047
Precision sprayer 600 litre tank, 10 metre boom		\$4757
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)		\$13,500 to \$42,000
Trailer Sprayers		
1500 litre, 2400 litre, 3500 litre, 12 to 24 metre boom		\$28,869 to \$95,000
Pickup Sprayers for Utes, Trucks etc		
1000 litre tank, 12 metre boom		\$13,000
Orchard Sprayers - Pip Fruit		
2000 litre trailer with an 800 to 900 mm fan		\$20,000 to \$26,000

Croplands Equipment Ltd:

Cropliner Range of Trailed Sprayers -

620 to 920 mm fan, 120 litres per min. pump, 2000 litres	\$13,990 to \$17,350
Fieni Airblast - Standard Fieni 620 to 920 mm	\$2840 to \$5350
Grape Sprayer - 4 air shear multi nozzle heads 1000 to 2000 ltr	\$21,200 to \$23,000
Linkage sprayers, 700 to 900 litre, 12 metre boom, manual	\$6450 to \$7090
Foam markers, single sided/2 pot foam marker	\$850 to \$1450
Wheel barrow sprayers, 50 to 120 litre	\$1190 to \$1330
Sled sprayer rigs, 450 to 1000 litre	\$1195 to \$2100
Hydraulic booms, 12 metre	\$6950

C-DAX:

C.B. Norwood

12 Volt electric models- C.D.A. Boom Sprayers

	Tractor (Three point linkage)	Flatdeck	Trailer
Compact (280 litre) 5.6m boom	\$2782	-	\$3358
Farmpak (600 litre) 7.2m boom	\$4172	\$3433	\$4108

PTO and Engine models-

280 litre three point linkage, 250psi (Tractor) 4m boom	\$2398
600 litre three point linkage, 250psi (Tractor) 6m boom	\$3318

T-Bar Horticultural Sprayers -

Compact	280 litre, 580psi	- Tractor (3 point linkage)	\$2620
		- Trailer	\$3995
Farmpak	600 litre, 725psi	- Tractor (3 point linkage)	\$3425
		- Trailer	\$3935
		- Trailer plus 10 HP 4 stroke	\$5728

Handgun Sprayers/Wet Booms

C-DAX:

C.B. Norwood

12 Volt Electric:	Tractor (Three point linkage)	Flatdeck	Trailer
Compact (280 litres)	\$1540	\$1378	\$2125
Farmpak (600 litres)	-	\$1751	-
P.T.O. -			
Compact (280 litres)	\$2175	\$2876 *	\$3494 *
Farmpak (600 litres)	\$2745	\$3696	\$4326

*Engine Driven

Daxit Mini Electric Sprayers -

Economy Handgun 20/53 litre tank	\$485/\$590
Wheeled Handgun 20/53 litre	\$695/\$979
Trailer mounted models 53 litre	\$750 to \$997

Spray Rider -		
12 volt electric gun sprayers for ATU's		
	SR45, 45 litre	\$722
	SR60, 60 litre	\$735
	SR100, 100 litre	\$788

Wet Booms -		
	2 metre	\$169 to \$219

Vertical Fold Booms including Quick Smart Attachment System		
	3 metre	\$379
	4 metre	\$439
	6 metre	\$669

Ag-Equipment Specialists:

Hurricane spray pack, including 500 litre spray tank, pump, 20 m hose, PTO driven, 33 to 48 litres per minute -		\$2395 to \$2495
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Knapsack Sprayers

Croplands Equipment Co.:

Plastic Knapsack	7 litre	\$95
	15 litre	\$198
	8 litre granule applicator	\$340

Solo:

Plastic Knapsack	5 litre	\$88
	15 litre, piston and diaphragm pump	\$160
	15 litre gasoline powered	\$689
	12 litre gasoline powered mistblower	\$998

White Star Products Limited: Fynspray

High pressure senior knapsack (brass)		\$392
Master pressure sprayer		\$105
Plastic knapsack sprayer		\$222

Waterblasters

Ag-Equipment Specialists:

Hurricane Complete, tractor driven, 250/500 litre		\$2950 to \$3550
Tornado HC45 Complete, 17.5 litres per min, 11 HP Honda petrol engine		\$3950
Electric - 11 litres per minute to 19.5 litres per minute		\$1850 to \$3950

Croplands Equipment Co.:

Portable (electric) 1000 to 1500 psi, 8 to 11 litres per min		\$780 to \$1250
Motorised 1595 to 2900 psi, 11 to 15 litres per minute		\$2200 to \$4580

2.20.8 Tractor Transport Trays

<i>Giltrap Engineering:</i>	Tray Only	Complete
1.980 m x 1.220 m (6ft 6in x 4ft)	\$900	\$1170
2.130 m x 1.370 m (7ft x 4ft 6in)	\$940	\$1210

2.20.9 Front End Loaders

Bell Farm & Auto: (1994 prices)

2½ Double acting lift rams, complete mounting frame	\$6318
- with heavy duty arms (bucket not included)	\$6808

Bucket prices 1200mm/1500mm/1800mm \$910 to \$1110

Attachments:

Bale fork - round bales	\$690
Pallet fork - heavy duty bulk solid types	\$768
Silage fork - clamp complete with ram	\$1850
Silage top grab and ram	\$900
Box tipper - heavy duty	\$2950
Grain bucket	\$1250

Fairbrothers Industries Limited:

Heavy duty, single crown front end loader	\$6900
Heavy duty, twin crown front end loader	\$7630

Duncan Industries Ltd:

Front end loader forks	1200 kg capacity	\$805
	1600 kg capacity	\$1066
	Silabale (dual purpose)	\$2390

2.20.10 Trailers

	North Island	South Island
<i>Giltrap Engineering:</i>		
2 tonne tip trailer 2.75 x 1.83 deck	\$4450	\$5000
3 tonne tip trailer 2.75 x 2.3 deck	\$4950	\$5550
5 tonne tip trailer 3.65 x 2.3 deck	\$6400	\$7100
5 tonne tip trailer - on tandems	\$8150	\$8850

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 - 4.0/5.75 cu.m \$9650 to \$9950

Hydraulic only - 7.09 cu.m \$11,000 to \$12,050

Hydraulic only (on tandems) 10.82cu.m \$16,800 to \$21,400

PTO only - 7.09 cu.m \$12,050 to \$16,800

PTO only (on tandems) - 10.5/13.0 cu.m \$17,050 to \$21,650

Options - when ordering with a new silage wagon (in lieu of standard equipment)

Gallagher Combination Unit (harvester/feed wagon) \$15000

Omarv Combination Unit (harvester/feed wagon) \$11500

Cross Conveyor models (add \$700 to \$800 for South Island)

PTO or hydraulic -7.09/8.0 cu.m \$14,200 to \$15,360

PTO or hydraulic (on tandems) - 10.0/12.5 cu.m \$19,000 to \$24,160

Claas: Silage loader wagons (tandem axles)

Model 335P 30 cu m Bin, 45 mm cut length \$69,700

Taege Manufacturing:

Front-centre Feed Wagons, 8/10.5 cu.m \$12,100 to \$13,100

Tandem Axle extra/Side Delivery extra \$2300/\$2900

Forage Harvesters

Omarv (Giltrap Engineering):

FH2P.150 1.5 metre working width \$8830

Gallagher:

Fine cut - 1.35 m central mounted models \$8725 to \$8995

- 1.85 m central mounted model \$9985

Multicut - 1.35 m central mounted models \$9280 to \$9690

- 1.85 m central mounted model \$10,580

Precision-chop Forage Harvesters

Tulloch:

JF FCT800 Trailed 1.6 pickup, electric controls, 50 to 100 HP \$39,300

Mengele SH40N 1.8 metre pickup, 90 to 150 HP \$88,060

Claas:

Jaguar 75 to 1.75 m pickup, 85 to 150 HP	\$68,900
Jaguar self propelled forage harvester	\$210,000

Maize Choppers

PZ:

Maize chopper MH 90S single row	\$14,990
Maize chopper MH 180S double row	\$34,990
Maize chopper MH 180SU double row reversible mounting	\$43,990

Claas:

Single Row Maize Choppers	Jaguar 35, 8mm lengths	\$22,100
	Jaguar 25, 5mm lengths	\$14,690

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
Agtuf - one piece silage covers Black/White	\$1.85/square metre
Agtuf - Round Bale wrap 500/750 mm x 1500 m - 25 μ	\$88 to \$142

Permathene Plastics Ltd:

Covers - Custom Made	
125 micron - black	\$0.68 per metre
250 micron - black	\$1.10 per metre

Silage/Hay Preserves

<i>PDQ Products:</i>	Quantity	Price
Silage Treet		
- 20 tonnes of silage	10 kg	\$32
Soluble Concentrate		
- treat 200 tonnes of silage	400 gm	\$320
Hay Treet - treats 260, 30 kg bales	16 kg	\$56
(20 to 30 cents per bale)		

2.20.12 Grain Crusher/Feedout Equipment

Smiths Attachments:

Small Grain Feeder for motorcycle \$782 to \$1320

Streamline Feeding Systems:

John Turner (freight included)

Junior all grain roller crusher

4" roller, chain driven rollers, 18 litre hopper, 1/4 HP \$545

Senior all grain roller crusher, 1 HP \$1370

2.20.13 Fertiliser and Manure Spreaders and Topdressers

Aitchison Industries:

Linkage mounted spinner spreaders -

900 to 1100 kg capacity \$3250 to \$3750

400 to 600 kg capacity \$1475 to \$1699

A.T.V Trailed spreaders -

150 to 400 kg capacity \$1455 to \$1995

AgMark:

Spun Steel Hopper - Eurospan 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 Broadpectrum Models - Spinner Spreaders

XL Series

XL400 385 litre capacity (460kg) \$1490

XL500 450 litre capacity (540kg) \$1590

Oscillating tube spreaders - P Series

P406 390 litre capacity (470kg) 6 to 20m spreading width \$3395

P556 540 litre capacity (650kg) 6 to 20m spreading width \$3695

P706 690 litre capacity (830kg) 6 to 20m spreading width \$3895

P906 890 litre capacity (1070kg) 6 to 20m spreading width \$4095

Hopper Cover \$95

Vicon:

PS 203 (200 litre/4cwt capacity) \$2795

PS 403 (400 litre/8cwt capacity) \$3795

PS 603 (600 litre/12cwt capacity) \$4399

<i>Lely:</i>	Capacity	Spreading width	
SL 2400	1200 litre	36 metres	\$7950

<i>Giltrap Engineering Ltd:</i>		South Island	North Island
Slurry Spreaders (5000 to 7500 litre tank)	\$16,050 to \$21,300	\$15,250 to \$20,400	

<i>Williams Engineering:</i>			
Effluent Elephant 500 to 7000 litres			\$16,650 to \$18,250

2.20.14 Trucks and Utilities (Light Commercials)

Daihatsu:

Diesel Delta Trucks			
1.5 to 3.5 tonne 2WD with single or double cabs			\$34,489 to \$34,845
4WD SWB Feroza/Rocky 5 speed			\$29,324 to \$36,088

Ford:

Courier 2WD	Petrol or diesel		\$21,285 to \$30,396
Courier 4WD			\$30,929 to \$36,440
Falcon Models	Utilities (4 litres)		\$28,485 to \$33,462

Mazda:

	Cab and Chassis	Pickup
B2200	\$21,067	\$26,267
B2600 i	-	\$30,444
B2200 diesel	\$22,622	\$24,400
T3500 2 Tonne	\$33,289	-
T3500 3.5 Tonne	\$36,044	-
T3500 2.0 Tonne 4x4	\$41,778	-

Nissan:

Navara Models .75 to 1 tonne		
2.0 to 2.7 litre, 2WD and 4WD 5 speed, petrol		\$26,267 to \$35,467
Pathfinder 4WD 3.0 litre		\$58,889

Lada: (1994 prices)

Taiga 1.6 litre, topside flatdeck(diesel)		\$23,551
Taiga 1.6 litre, TX (diesel)		\$25,773
Taiga 1.6 litre, topside flatdeck (petrol)		\$18,662
Taiga 1.6 litre, TX (petrol)		\$20,885

Toyota:

4WD Hi-Lux Petrol or diesel		\$36,711 to \$43,244
Landcruiser SWB petrol or diesel		\$53,777 to \$55,111
Landcruiser LWB petrol or diesel		\$52,888 to \$63,555
2WD Hi-Lux models 1.8 to 2.4 litre		
Choice of cab types, petrol or diesel		\$19,289 to \$33,111

Mitsubishi

L200, 2WD 2.0 to 2.6 litre, petrol	\$21,778 to \$29,244
L200, 4WD 2.6 to 3.0 litre, petrol	\$31,822 to \$41,390
L200, 4WD 2.5 litre diesel	\$35,367 to \$39,467
L300, 2WD 2.0 to 2.4 litre petrol	\$26,134 to \$31,378

Holden (Blackwell Motors):

Utilities VP Model	V6 'S' Bucket Floor	\$31,462
	V6 'S' Bench Column	\$32,173
	V8 'S' Bucket Floor	\$35,730

Landrover (Archibalds):

Defender - 110 Chassis cab TDi	\$44,436
- 90 pickup TDi	\$44,436
Discovery 5 Door V8i	\$63,991

Isuzu:

N Series Trucks -	
NKR 200 to 275C, 1.5 to 2.5 tonne	\$30,710 to \$41,510
NPR 350 P/S to 450 P/S, 3 to 4 tonne	\$38,133 to \$43,467
F Series Trucks -	
FSR 500 to 600, 5 to 6 tonne	\$62,756 to \$64,089
FVR 800 to 900L, 8 to 9 tonne	\$83,112 to \$94,756
FVZ 1400, 14 tonne	\$133,334

2.20.15 Cultivation Implements

Ploughs

Clough:

2000 TRI-LINE Series	
4 to 6 Furrow (In-furrow)	\$13,125 to \$16,307
7 to 9 Furrow (On-land)	\$21,326 to \$24,954

1000 TRI-LINE Series -

3 to 5 Furrow	\$5303 to \$7492
460 Disc Plough -	
2 to 3 Furrow	\$3747 to \$4618
4 to 5 Furrow	\$5645 to \$6754

Klough:

Multi Plough, Mounted Auto Reset, 3 to 5 Furrow	\$7003 to \$10,552
Multi Plough, Semi Mounted Auto Reset, 4 to 6 Furrow	\$14,665 to \$19,380
Model 850 Mounted Plough, Shear Pin, 2 to 5 Furrow	\$4042 to \$7355

Model 850 Plough, Semi-mounted Shear Pin, 4 to 6 Furrow	\$11,675 to \$14,883
Model 680 Quartz Plough, Semi-mounted, 4 to 8 Furrow	\$11,886 to \$24,351

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

Chisel Ploughs and Subsoilers

Clough:

950 Goliath Chisel plough/cultivator - 7 tine (2.7 m) to 15 tine (4.3 m)	\$6384 to \$9330
960 3 Row Ridger	\$2064
300 Panaerator sub tillage plough 3 to 7 legs (with coulters and roller crumbler)	\$5535 to \$9990

Howard:

Chisel plough, heavy duty 5 tine	\$3011
Paraplow - 1100 Series 3 leg standard legs and disc assembly	\$7506

Aitchison:

Soil Aerator

Double Beam Model	No. tines	Frame width (metres)	Price	
			without coulters	with coulters
	3	1.83	\$2769	\$3699
	4	1.83	\$3292	\$4532
	5	1.83	\$3815	\$5365
	5	2.40	\$4115	\$5665
	7	2.40	\$5161	\$7331
	9	2.40	\$6207	\$8997
Optional extra	- crumbler roller (1.83/2.4 metres)		\$1368 to \$1668	
	- vibrator		\$977	
Mole Plough - Manual tine adjustor / hydraulic adjustor			\$1725 to \$1898	

Gallagher:

Subsoiler and Shakeaerator

1.4m to 2.4m, 2 to 4 shank	- Pasture model	\$4450 to \$6950
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Klough:

460 Mole Plough		\$1565
980 Panbuster, 3 to 11 tine	- Auto reset	\$5447 to \$16,572
	- Shear pin	\$3688 to \$9481

Discs

D. Cosgrove:

Cosgrove Trailing Disc	- 32 and 36 blade	\$11,300 to \$12,650
Reid and Grey Tandem Discs	- 9 and 10 foot	\$6190 to \$6580

Duncan:

800 Mounted Disc 7'		\$6320 to \$6460
800 Mounted Disc 8' to 9'		\$6546 to \$7205

Cultivators

Clough:

Standard Frame 925 Mini-Till Models -

	<u>With Crumbler</u>	<u>Without Crumbler</u>
1.6m to 2.6m, 13 to 19 tine Helper Tines - extra \$14.96	\$1943 to \$2253	\$1355 to \$1533

923 Wide Line Trailing Maxi-Till

5.5m to 8.8m, 54 and 82 tine	\$16,407 to \$18,853	\$13,409 to \$15,525
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920 Mounted Maxi-Till Standard Models

2.53m to 4.13m , 22 and 38 tine	\$2657 to \$3643	-
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929 Contura - Foldup mounted Maxi-till

4.25m to 5.6m, 42 to 56 tine, comes with crumbler		\$6668 to \$7482
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Lely:

Roterra

1.5m to 2.5m, 60 to 100 HP required		\$8965 to \$16,250
3.0m to 4.5m, 100 to 275 HP required		\$17,990 to \$36,990

Aitchison:

Wideline Foldup Cultivator

	<u>With Crumbler Roller</u>	<u>Without Crumbler Roller</u>
4.2m/4.8 m 42/46 tine	\$7141/\$8197	\$6356/\$7162
5.6m/6.2m 53/59 tine	\$8477/\$9557	\$7134/\$8307

Easyflow cultivators

1.83m/3.66m 17/35 tine	\$2249/\$4070	\$1867/\$3101
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Easyflow wideline Trailed Cultivators

5.6m/7.0m 56/69 tine	\$16,356/\$17,792	
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Superflow Heavy Cultivators

2 Bar Frame			
Subsoiler	1.7m/1.98m	1 to 3 tines	\$1985/\$3307
Lo-Draft	1.98m/2.44m	3 to 7 tines	\$2955/\$6095
Cushion	1.98m/2.44m	3 to 7 tines	\$2991/\$6200
3 Bar Frame			
Lo-Draft	1.98m/3.05m	5 to 11 tines	\$4550/\$9560
Cushion	1.98m/3.05m	5 to 11 tines	\$4610/\$9692
Depth Wheel per Pair			\$858

Speciality Machinery: (Marton)

Rolling Cultivator

4 x 3,4,5 spider gangs for 20" to 44" rows	\$4852 to \$5500
8 x 3,4,5 spider gangs for 20" to 44" rows	\$9600 to \$10,800
Ridge Runner	
4 x 3,4 disc gangs	\$5227 to \$5715
8 x 3,4 disc gangs	\$9909 to \$10,885

Klough:

"S" Tine Cultivators:		<u>With Crumbler</u>	<u>Without Crumbler</u>
1.6 m	13 tine	\$2007	\$1395
2.1 m	17 tine	\$2206	\$1520
920 Maxi-Till:			
2.4 to 3.6 m	23 to 38 tines	\$2895 to \$3780	\$2155 to \$2862

	<u>No of tines</u>	<u>Price</u>
203 Centre Fold Maxi-Till:		
4.26 to 6.1m	41 to 59	\$6946 to \$8269
923 Fully Trailed Maxi-Till:		
5.5m to 8.8m		\$16,428 to \$18,986
904 Double Bar Coil Tine Cultivator:		
	13 to 19	\$3489 to \$4603
Fully Trailing Coil Tine Grubber:		
6m to 9.1 m	27 to 35	\$12,500 to \$13,750

Tine Cultivators

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

Clough:

940 Agri-tiller Coil Tine Cultivator

		With Crumbler	Without Crumbler
2.06 m	9 tine	\$3376	\$2652
2.50 m	11 tine	\$3985	\$2930
2.96 m	13 tine	\$4452	\$3339
3.40 m	15 tine	\$4872	\$3728
3.86 m	19 tine	\$5292	\$4158

Mowtown:

Crumbler Roller 3000 3 metre ground driven \$7990

Rotary Hoes

Power & Marine:

Self propelled rotary hoe 8 HP \$4495

Howard:

180 cm Dual skids up to 90 HP \$6824

205 cm Dual skids up to 90 HP \$7063

Power Harrows

Kuhn: HR Series models -

HR 3002D Crumbler, Roller, Leveller \$23,520

HR 302M Crumbler, Leveller, Clutch \$22,610

HR 3502D/4001M Crumbler or Packer, Leveller, gear wheels \$26,475 to \$33950

Harrows

Lyndon Harrows: (1994)

Utility Covering Harrows 10 mm medium \$350 to \$450

12 mm heavy \$400 to \$480

Chain Harrows 10 mm medium 6 to 12 foot \$425 to \$710

12 mm heavy 6 to 14 foot \$520 to \$1015

Zig-Zag Harrows 16 mm tines \$205 per leaf

20 mm tines \$240 per leaf

	Type	Per Leaf	To Fit 20 Run Drill
Drill Covering Harrows	Light	\$116	\$580
	Medium	\$142	\$710

Spiked Chain Harrows 12 mm, 6 to 12 foot \$520 to \$1350

16 mm, 8 to 12 foot \$1300 to \$1800

20 mm, 8 to 14 foot \$2147 to \$4422

Round Ring Harrows	12 mm, 6 to 12 foot	\$425 to \$710
	16 mm, 8 to 12 foot	\$800 to \$1000
Horse Track Harrows	2 leaf and bar	\$750

Mechanical Weeders

Farmrite Industries Ltd:

Lely 450 to 750	4.5 to 7.5 m wide	\$5500 to \$9790
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Rollers - Cambridge Rollers

Austins Foundry Limited: (1994 prices)

4.00m (13ft)	Standard to Extra Heavy Rings (26")	\$3635 to \$4450
3.65m (12ft)	Standard to Extra Heavy Rings (26")	\$3465 to \$4240
3.35m (11ft)	Standard to Extra Heavy Rings (26")	\$3300 to \$4030
3.05m (10ft)	Standard to Extra Heavy Rings (26")	\$2970 to \$3820
2.80m (9ft)	Standard to Extra Heavy Rings (26")	\$2810 to \$3600
3.00m (10ft)	Vee Ring Seeder Roller -with wheels (26")	\$8800
2.80m (10ft)	Heavy Flat Rings (30")	\$5575

Field Rollers

Duncan:

300 Field Roller		
2.48m to 3.0m (8' to 10')	Standard Rings (630 mm/26")	\$3945 to \$4571
2.48m to 3.0m (8' to 10')	Deep 'V' Rings	\$4547 to \$5340

Heavy Rollers

Water Ballast Heavy Rollers	from \$8000 to \$16,000
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2.20.16 Cultivation Accessories

Klough Group:

Plough Parts -	
Share 12" (steel)	\$33.50
Share 16" (steel)	\$36.50
Share 12" (SG)	\$31.50
Share 52 SG	\$26.00
Mouldboard 14" bolted GP/AP	\$185
Mouldboard 850 multi-purpose	\$195
Maxi Till Points	\$2.45
Maxi Till Bolts	\$0.60 to \$3.80
Maxi Till Tine (bare)	\$24.15

Mole Plough	- Main Blade	\$357
	- Plug	\$64.50
	- Point	\$65.00
Front Brackets	- F/B 3-4 FRW 14"	\$191.15
	- F/B 3-4 FRW 14" HD	\$196.35
	- F/B 3-4 FRW 16"	\$191.75
	- F/B 5-6 FRW 12"	\$237.95

2.20.17 Planting Implements

Drills and Seed Boxes

Duncan:

712 Agvance -		
15 to 23 Run Hoe Coulter		\$15,355 to \$18,250
15 to 19 Run Double Disc Coulter		\$17,694 to \$20,150
760 Till Seed -		
11 Run with seed box and disc openers		\$11,475
15 Run with seed box and disc openers		\$12,995
734 Multi-Seeder -		
15 to 23 Run Triple Disc Std		\$24,237 to \$32,960
Eclipse Sowing Box 15 to 13 Run Front/Rear		\$2558 to \$3250

Aitchison Industries: (freight included).

Seedmatic 3000 Seed only Drills		
-Linkage 12 to 20 row	(1.8 to 3.0m)	\$9985/\$11,675
-Trailed 12 to 20 row	(1.8 to 3.0m)	\$12,881/\$14,571
-Coulter/Linkage 12 to 20 row	(1.8 to 3.0m)	\$12,217/\$15,395
-Coulter/Trailed 12 to 20 row	(1.8 to 3.0m)	\$15,113/\$18,291
Seedmatic 3100 Seed and Fertiliser Drills		
-Linkage 12 to 20 row	(1.8 to 3.0m)	\$11,999/\$14,465
-Trailed 12 to 20 row	(1.8 to 3.0m)	\$14,895/\$17,361
-Coulter/Linkage 12 to 20 row	(1.8 to 3.0m)	\$14,231/\$18,185
-Coulter/Trailed 12 to 20 row	(1.8 to 3.0m)	\$17,361/\$21,081
Seedking 1400 Arable Drill		
-18 to 24 row		\$17,475/\$21,142

Great Plains:

3 Point Linkage, No-Till Drills	\$28,500
Solid Stand End Wheel Drill, 26 run 13 foot	\$32,500

Tulloch:

Air Seed Drill	
Accord Pneumatic: 4.5m working width, 32 coulters	
- seed only	\$28,480
- seed and fertiliser	\$34,500

<i>Lely</i> : Polymat pneumatic drill	300N	3 m width	\$24,895
	400N	4 m width	\$28,895
<i>Austins</i> : Vee Ring Roller Drill			\$8000
<i>Duncan</i> : Roller Seed Box	2.4 m c/w Gears and Fittings		\$3735
	3.0 m c/w Gears and Fittings		\$4095
300 Field Roller	2.48 m (8') Standard rings		\$3945
	3.00 m (10') Deep V rings		\$5340

Precision Drills

Specialty Machinery Ltd.: (1994 prices)

Hand Push Seeder			\$1300
Tractor Mounted Seeder	1 row		\$1600
	c/w floating cradle,	2 row	\$2920
	hitch, tool bar and stands	4 row	\$5560

Transplanters

Lannen Plant Systems:

(prices ex. Christchurch/Auckland)

RT-2 Transplanters	Two Row		\$11,700
	Three Row		\$16,600
Optional extras	Second toolbar		\$450
	Land compression rollers		\$500

Specialty Machinery Ltd.: (1994 prices)

Model 22C-D 10 Pocket disc	1 row		\$2900
6" to 20" plant spacing	2 row		\$5550
"High speed cell metering" Transplanter	1 row		\$6406
	2 row		\$12,582

Farmrite Industries Ltd.:

Grimme: Potato Planters			
Gruse two row cup type potato planter			\$23,800
Structural high speed two row potato planter			\$28,750

Hassia: (1994 prices)

2 Row Potato Planters			
Model GLE 2 c/w fert 62.5, 75 or 90cm spacing			\$10,410
Model GLO 2 c/w fert 62.5, 75 or 90cm spacing Parallelogram Furrows			\$11,100
Model GLB 2D - same as above but with Hydraulic Tip Hopper			\$14,620

Tree planting auger

Aitchison Industries:

152mm to 304mm diameter, adjustable from 0.43m to 0.61m long,
replaceable cutter and Tungsten Carbide tip \$140 to \$180
38 cm extensions to fit all above \$62.90

2.20.18 Harvesting Equipment

Lifters, Diggers and Harvesters

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

Farmrite Industries Ltd:

Grimme Potato Harvesters -

Single Row SE 70/20 Bunker Model	\$74,500
GB 1500 Two Potato Harvester	\$112,000

Windrowers

Claas:

5.40m working width, three point linkage	\$11,675
5.40 to 7.40m working width, pull type	\$12,370 to \$15,600

Lely:

Lotus Tedder/Windrowers:

300 Combi 2 Rake Wheels, 3m working width	\$5550
600 Stabilo Combi 4 Rake Wheels, 6m working width	\$13,950

Combine Harvesters

Farmrite Industries Ltd:

Claas Dominator 78 SL Classic	\$172,000
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Cochrane W.H. & Co Ltd: (1994 prices)

Case International, Axle Flow 1666, 20 foot cut front, 215 HP	\$222,000
Case International, 1644	\$193,800

C.B.Norwood:

New Holland 155HP (115KW) 5.18m table	\$270,000
New Holland 205HP (153KW) 6.09m table	\$350,000

2.20.19 Farm Bulldozers

Gough Gough and Hamer:

Caterpillar range

D3CIII Track Type Tractor	\$144,250
D4CIII Track Type Tractor	\$177,570
D4HXL Series Track Type Tractor	\$190,375
D5HIII Series Track Type Tractor	\$256,185
D6HIII Series Track Type Tractor	\$355,080

2.20.20 Lift Trucks/ Forklifts/ Pallet Truck

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/\$58,000

Loadlift Equipment (Christchurch) LTD):

Nissan Forklifts

2.5 tonne container compatible mast, sideshift electric motor	\$55,000
2.5 tonne container compatible mast, sideshift LPG	\$42,000
Hire rate for the above LPG machine	\$1000 per month

Quin-Baleboys Ltd:

	Lift Height	Lift Capacity	
2 Stage	1.5m	750 to 1250 kg	\$2800 to \$3200
	1.9m	1500 to 2000 kg	\$4000 to \$5300
	2.0/2.4m	450/750 kg	\$1990/\$2950
	3.0m	1250, 1500, 2000 kg	\$3800/\$4300/\$5750
3 Stage	2.59m	1000 to 1250 kg	\$4350 to \$4800
4 Stage	2.59m	1000 kg	\$5750

Options Available:

Bin Forks	1500 kg	\$570
Sideshift - fitted to forklift (including hydraulics)		\$1260
Front Mounting		\$2350
Bin Tipper	150° Tip	\$2650

Croplands Equipment Ltd:

Camel Pallet Truck

1.5 to 2.0 tonne

\$895

2.20.21 Other Farm/Orchard Equipment

See also *Section 2.19.6*, fencing equipment.

Chainsaws

Russell Thomas Engineers:

Sachs-Dolmar

33cc/43cc

Bar Size

14"/15"

\$684 to \$938

51cc/52cc/60cc/68cc

15"/18"/21"

\$1056 to \$1412

85cc/95cc

24"/29"

\$1857 to \$1919

Electric 1600 watts

14"

\$413

McCulloch:

32cc/35cc

14"/16"

\$325 to \$497

38cc/60cc

18"/20"

\$542 to \$764

70cc/82cc

20"/24"

\$836 to \$1288

Foster Chainsaws:

Stihl:

Engine Power

Bar Size (cm)

026

49cc

32,37,40

\$1062

036

62cc

37,40,45

\$1329

044

70cc

40,45,50

\$1418

066

92cc

50,63,75

\$1755

Specialist Tree Surgery and Pruning Chainsaw

020T

35cc

30,35

\$1062

Electric Chainsaw

1.7 kW

30,45

\$648

Brushcutters/Trimmers

Russell Thomas Engineers:

McCulloch

Brushcutter 32cc bent/straight shaft

\$319 to \$559

Mowtown:

Kaaz Brushcutters -

VX360-T180

32.5cc, including 3 tooth grass blade

\$849

Knapsack Brushcutters

C20-T130

15.9 cc, including Jaw and Blade

\$895

Kaaz Hedge Trimmers -

TM30B-T130

22.6cc, Double Sided Blade

\$779

TM310-T130

22.6cc, Single Sided Blade

\$825

Prices Exclude GST

B-214

Foster Chainsaws:

Stihl:

Heavy duty gasoline hedgetrimmers

HS 74 20cc \$928

HS 246 (attaches to Stihl 026 chainsaw) \$369

Solo Brushcutters:

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) \$1980

Trailer for Tractapac \$1420

Weldanpower 175/225 petrol \$3656/\$5594

Weldanpower 300 diesel (silenced) \$11375

Kubota Power Products:

AV650 0.55 kVa \$1475

AE3200 2.6 kVa \$2457

AV5500B 4.8 kVa electric start \$3750

ASKR 150B 5.5 kVa diesel \$5652

GL4500S 4.5 kVa diesel (silenced) \$8220

GL6500S 6.5 kVa diesel (silenced) \$10,115

Yamaha:

Petrol -

EF600 500v AC output \$1312

EF2500 2100v AC output \$2304

EF3800 3200v AC output \$2928

EF6000E 5400v AC output \$3896

Diesel -

EDY65000E 6500 watts \$7552

Ladders

Alco:

AC7 Combination ladder - 7' to 13' (2.1 to 3.7m)	\$243
AEL22 Extension ladder - 13' to 22' (4.0 to 6.7m)	\$516
Farmaster ladder - 8' to 15' (2.4 to 4.5m)	\$333

Pruning Equipment

Hortlink Marketing Ltd:

Lopping Shears	\$52.80 to \$109
27" Heavy Duty Brushcutter	\$115.21
Forest Pruning Saw	\$64.13

Pasture Probes

<i>Mosaic Systems Ltd:</i> Pasture Probe version 3 or 4	\$1350
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Roger Martyn (RD3 Ohaupo):

PastureGauge Senior with 'Optifeed' feed budgeting software	\$1612
PastureGauge Junior	\$902

Chains

<i>Ancra N.Z. Ltd:</i> 8mm to 10mm with slip and grab hook	\$103 to \$122
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Effluent Pond Stirrer

<i>Williams Engineering:</i> (including wheels)	\$3240
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Stump Chipper

<i>Williams Engineering:</i> Tractor Driven Stump Chipper	\$17,500
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2.20.22 Safety Equipment

Croplands Equipment Ltd:

Air Hood c/w Arbin Tractor Mounted Filter and Portable Filter	\$2160
Air Hood c/w Arbin Tractor Mounted Filter	\$1760
Air Hood c/w Portable Filter	\$995
Arbin Tractor Mounted Filter only	\$1065

New Zealand Safety (Wormald):

677 Full PVC Suit (Heavy spraying)	\$122.40
Crop spraying helmets -	
AH50 Charcoal Filter (Chemical spraying) AH1 (Dust Filter)	\$689
AH50 Airstream Helmet (Racool product) - complete respiratory protection	\$963
Welding helmet	\$32.80
PVC Long Gloves	\$4.30
Gumboots - Safety Steel Toe Cap	\$45.10

<i>Hortlink Marketing Ltd:</i>		
Poly Laminated Jackets		\$22.35
	Trousers	\$16.00
Poly Coveralls		\$35.00
Ear-muffs		\$10.50
Respirator (chemical) Hood with visor		\$44.50
Air Supply Mask		\$61.30

Fire Extinguishers:

New Zealand Safety (Wormald):

<i>Alsafe Dry powder</i>		
	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)

<i>Fruitfed: Frost Alarm (1994 price)</i>		\$690
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Permathene Plastics Ltd:

Birdnetting	4m x 50m	\$84.00
Marix frost protection	1.9m x 100m	\$105.00
	1.3m x 1500m	\$960
Marix thermal screening	2.1m x 100m	\$294

Croplands Equipment Ltd:

Purivox Bird Scarers - Operate from propane gas.		
Duplex		\$650
Triplex Caroused, including timer (protecting 4 to 5 ha.)		\$1495

Electro-Tek Engineering Ltd:

Zon Export	- complete unit	\$898
	- gun only	\$453
	- timer only	\$302
	- tripod	\$143

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

Permathene Plastics:

Tarpaulins Heavyweight reinforced vinyl - made to measure

All Purpose Supercovers - Heavy duty polythene with Permtab Eyelets at 1m centres

1.8m x 1.2m to 1.8m x 3.0m \$11.38 to \$17.90

3.6m x 2.4m to 3.6m x 4.8m \$32.50 to \$56.63

3.6m x 5.5m to 5.5m x 9.1m \$63.68 to \$147

All Purpose Supercover Rolls Standard

1.83m x 100m assorted colours \$300

Load Binders

Ancra N.Z. Ltd:

Loadbinder 50mm, 2000 kg capacity including ratchet \$40.00

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 \$1.00 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 Building Research Levy rate is also \$1.00 for every \$1000 of the estimated value.

The levy rates are reviewed annually and can be decreased by regulation. They 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	\$4300 per bail
Site preparation and power	\$500 per bail
Effluent disposal	\$330 per bail
Total cost	\$5130 per bail

A specific example of the cost of construction of a 40 bail Herringbone shed in 1994 (Canterbury) was as follows:

Buildings and yards	\$67,700
Pipe work	\$31,000
Electrical and plumbing	\$27,350
Effluent disposal system (includes pump installation)	\$12,150
Milking plant	\$51,500
	<hr/>
Subtotal	\$189,700

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Extras which will vary from site to site	
Power to the site	\$10,100
Access and fencing	\$10,000
Deep well	\$7,600
	<hr/>
Subtotal	\$27,700
	<hr/>
Total Costs	\$217,400

Note: This example includes milking plant.

Rotary Turnstyle Costs for complete dairies which involve all buildings, platform and yards are generally in the range of \$4,000 to \$6,000 per bail.

Building cost estimates: (depends on type of material used)

Building (roof, walls and facility rooms)	\$650 to \$1200 per bail
Building floor and foundations	\$500 per bail
Milkroom/outside silo	\$250 to \$450 per bail
Electrician/Plumber	\$270 per bail
Yard concrete (based on ten cows per bail)	\$450 per bail
Yard pipework (based on ten cows per bail)	\$300 per bail

Turn-Styles Ltd:

Platform Standard Prices -

Turn-Style platforms, sizes 24 to 60 bails.

Price varies with number of bails and district. Approximately \$1,671 per bail (60 bail). This is the installed price including all rollers, dial-a-speed controller, drive unit and standard bails.

Plus Separate Components: Auto Teatsprayer and cow counter	\$1,850
Auto drafting gate	\$2,230
Curtain gate, circular yard (plus \$85 for each additional metre)	\$2,990

Milking Equipment

(Note: See also Section 2.3.11, 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

Durobuilt:

Covered Yards-roof only

		<u>Square Metres</u>	
3 bays	7.5m x 3.8m bays	85.5	\$4,622
Extra bay	7.5m x 3.8m	28.5	\$1,378
Closed in one side	- 3 bay	-	\$578
	- extra bay	-	\$180

Calder Stewart Industries Ltd:

Woolsheds typically cost \$200 to \$250 per square metre to erect. Covered yards (building component only - not including cost of yards) cost \$50 to \$55 per square metre.

		<u>Size</u>	<u>Square Metres</u>	
Woolshed	- 3 stand	18 x 9m	162	\$37,260 to \$45,360
Covered Yards	- 1000 sheep	30 x 18m	540	\$27,000 to \$32,400
	- per 4.5m x 18 m bay			\$4,860

Harford:

Animal shelter - Arch Truss Option:

<u>Length</u>	<u>Width</u>			
	<u>9 m</u>	<u>18 m</u>	<u>27 m</u>	<u>36 m</u>
24 m	\$4,959	\$9,300	\$13,650	\$18,000
33 m	\$6,398	\$11,971	\$19,194 *	\$25,582 *
42 m	\$7,850	\$14,650	\$23,550 *	\$31,400 *
48 m	\$8,540	\$15,880	\$25,620 *	\$34,160 *

* Sawtooth vented models.

Coverfast Building System (Formsteel):

Covered Yard - roof only, no walls

	Height 3m	Height 4m
12 x 6m/9m/12m (galvanised)	\$4,072/\$6,043/\$7,072	\$4,169/\$6,232/\$7,259
18 x 6m/9m/12m (galvanised)	\$5,745/\$8,912/\$10,442	\$5,912/\$9,167/\$10,644

Note: Specific projects quoted for on an individual basis

Sheep Dips

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 \$8,000; 5000 ewe capacity about \$20,000.

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).

Sheep/Cattle/Deer Yard Plans:

Available from *StockYard Systems*, Invercargill.

Cattleyards-	6 plans plus 40 ideas	\$40 including postage
	12 plans plus 80 ideas	\$71 including postage
Sheepyards -	7 plans plus 20 ideas	\$31 including postage
Deeryards -	7 plans plus 20 ideas	\$31 including postage
Dairy shed-	7 plans plus 60 ideas	\$43 incl. postage

Mothing Pens

Calder Stewart:

4 Bay	\$740
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Portable Yards

Prattley Engineering:

Note: Prices are for South Island (freight paid to nearest rail terminal); North Island prices are slightly higher than South Island listed below.

Sheep Yards:

120 to 1000 sheep holding capacity	\$5,908 to \$8,716
500 to 6000 sheep holding capacity	\$11,247 to \$19,988
1500 to 10000 sheep holding capacity	\$17,319 to \$22,431

Cattle Yards:

50 plus beef animals	\$13,000
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Loading Ramps

Prattley Engineering

Sheep - portable loading ramp	\$820 to \$2,795
Cattle loading ramp	\$1,900 to \$3,488

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.

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 and Growing Tunnels

Tunnelhouses

Tunnel World Ltd: Kitsets (including freight)

Mini	- 3.0m width x 2m to 8m length	\$466 to \$1000
Tunnelhouses	- 3.0m width x 10m to 30m length	\$1,189 to \$3,065
	- 4.0m width x 2m to 8m length	\$738 to \$1,502
	- 4.0m width x 10m to 30m length	\$1,689 to \$4,199

Gabled Commercial Units

Twin skinned, with 2.2m side height, over 200 square metres:

6m	width	\$52.44 per square metre
8m	width	\$50.67 per square metre
12m	width	\$46.22 per square metre

Harford Greenhouses:

Propagator range, including steel truss, single ridge vent 1.5m, double doors 2.1m opening, twinskin Infrasol 266:

Size

6m width x 9m to 15 m length	\$4,370 to \$5,877
9m width x 12m to 15m length	\$6,177 to \$6,975

Options: Side Winder vent	\$375 each
Extra Double door	\$350 each

Erection from \$8.00 per square metre

Maxispan Kitsets

<u>Length</u>	<u>Single Vent</u> (from \$34 per m ²)		<u>Double Vent</u> (from \$41 per m ²)	
	<u>Width</u>			
	9.0m	18.0m	9.0m	18.0m
30m	270m ² \$11,386	546m ² \$21,186	270m ² \$13,186	540m ² \$24,786
48m	432m ² \$16,100	874m ² \$30,830	432m ² \$18,980	874m ² \$36,590

6 to 9m Arch Truss Budget Span
Roof only - from \$21.50 per square metre

Harford Crop Topper
2 x 7 metre span hoops, 48 metres long. Roof only, gutter connected from \$15.00 per square metre

Harford Sawtooth Crop Cover
6.5m span arch ventilated multibay
Roof only - from \$25.00 per square metre

Evergreen Horticulture and Hydroponics:
Cropking Greenhouses - available in 7.7m, 8m, 9.2m
Spans and multibay 2.5m, 3m, 3.5m post heights.
Single and Double ridge vents with maximum
opening 3.3metres. Twin Skin Durofilm, or
Durotherm Greenhouse covers. From \$37.60 per m²

Greenhouse Film

Permathene Plastics Ltd:

Greenhouse ducting Film	305/460mm x 80 μ x 100m	\$21.15/\$31.90
	610mm x 80 μ x 100/200m	\$42.25/\$84.50
	1000mm x 80 μ /125 μ x 50m	\$29.45/\$46.00

Graphlon (Reinforced)	1m or 2m x 100m clear	\$494 or \$988
	4m or 6m x 25 m clear	\$533 or \$819
	8m x 25 m clear	\$1,105

Permalite Greenhouse Covering Film

Standard rolls: 2m x 50m x 125 μ to 4m x 50m x 200 μ (range)	\$122 to \$390
Wide rolls: 6m x 25m x 125 μ to 12m x 25m x 200 μ (range)	\$208 to \$635

Evergreen Horticulture and Hydroponics:

Durafilm 3 Antifog film -

2m to 3m (width) x 50m (length)	\$1.94 per m
4m (width) x 50m (length)	\$1.86 per m
6m to 14m (width) x 50m (length)	\$1.50 per m

Agphane 101 -

2m or 4m x 50m rolls	\$216 or \$400
Cut length	\$2.99 per m ²

Infrane X30 -Greenhouse lining film and Cloche film -

2m or 5m width, 100m length	\$128 to \$428
Cut length, 2m only	\$0.84 per m ²

Glasshouse Equipment

Exal Glasshouse Equipment Ltd:

Irrigation Controllers - 8 station, twin programme, battery backup \$350

Flexal Heating Pads-

1m x 0.5m, 115 watts	\$75
1.5m x 0.5m, 175 watts	\$100
2m x 0.5m, 230 watts	\$125
2.5m x 0.5m, 285 watts	\$150
3m x 0.5m, 350 watts	\$180
Earth Leakage detectors	\$80

Ventilation Fans -

EL 500	5000 cubic feet per minute	\$420
EL 600	6500 cubic feet per minute	\$600
EL 750	10500 cubic feet per minute	\$1,250
EL 1200	20500 cubic feet per minute	\$1,100

Horizontal Airflow Fans - Turbofan

500 series	1400 rpm, 5000 cubic feet per minute, (8495 m ³ /hr)	\$385
500 series	Speed Controller	\$425
400 series	35 metre throw	\$333

Thermostats -

Exal ETP 0 - 40 Propagation	\$65
with pi plug	\$85

Environment Controllers -

Multifan Controller	\$747
---------------------	-------

Evergreen Horticulture and Hydroponics:

Propagation Heating Panels -

350 mm x 200 mm/330 mm	18 watt	\$44.44 to \$47.11
500 mm x 250 mm/400 mm	18/60 watt	\$49.77 to \$62.22
2000 mm x 500 mm	200 watt	\$206


Mosaic Systems Ltd:

Greenhouse Internal Control System:

PlantPlan based controller	Alpha, limited use	from \$1,400
	Laser, expandable	from \$4,500
	Optima, computer plus software	From \$10,000
CO ₂ Control System including sensor and sampler for 12 environments		\$5,500
Solar/Thermal Screen Controller		\$1,300 plus sensors
Fertigation Controller		from \$1,300
NFT System Controller		\$1,300 plus sensors

NEW

...from Initial Homes



Artist's Impression
Kawau

...build an Initial home to suit your lifestyle... and your budget!

Initial Homes have just released an exciting range of completely **NEW** plans. Plans that will make choosing your new home so much easier.

Choose your plan according to budget, lifestyle or family needs...whatever your requirements are, chances are Initial will have a plan to suit you!

Step into the warmth of solid natural timber in any Initial Home and we know you'll love it, after that it's just question of deciding which plan is for you.

We'd like to show you all the plans here, but there just isn't enough space, so fill in the coupon below, or locate your nearest Initial builder and ask to see what all the fuss is about.....you'll be glad you did!

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NAME

ADDRESS

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Step inside



Expressions LINC 1708

SEND TO:- Initial Homes Ltd, Private Bag
RO 3034, Rotorua.

Prices Exclude GST

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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	\$ 34,304	\$ 46,736	\$ 61,104
203	2	73	\$ 45,257	\$ 53,632	\$ 77,440
205	2	88	\$ 52,790	\$ 58,752	\$ 83,785
303	3	103	\$ 59,872	\$ 66,006	\$ 94,185
308	3	132	\$ 70,203	\$ 78,944	\$113,937
312	3	147	\$ 85,731	\$ 97,111	\$135,738
402	4	164	\$ 92,976	\$103,136	\$142,862

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.

2.21.8 Garages

Durobuilt:

6m x 4m	\$3,499
6m x 9m	\$5,199
7.5m x 6m	\$4,699
7.5m x 9m	\$5,999
7.5m x 12m	\$7,299

2.21.9 Haybarns/Implement Sheds/Packing Sheds/Stables

Durobuilt:

Haybarn (Kitset)

7.5 m wide x 3.8 m bays, roof only - 3 Bay	\$4,356
Extra Bay	\$1,289

Implement Shed (Kitset) Lean To

6 m x 4.9 m bays open front	
2 Bays / 3 Bays / 4 Bays	\$5,422/\$7,200/\$8,978

Gable Type (Kitset)

6 m to 11 m wide x 3.8 m bays - closed in 4 walls	
3 Bays	\$6,400 to \$10,444
Extra Bay	\$1,591 to \$2,293

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	\$1307
4 Bays	\$8,939	\$1701
5 Bays	\$10,664	\$2,095
6 Bays	\$12,388	\$2,489

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

McVicar Timber Group Ltd:

Hay Barn Poles

150mm x 3.0m/3.6m/4.2m	\$34.27/\$42.36/\$49.60
150mm x 4.8m/5.4m/6.0m	\$58.75/\$67.65/\$76.23

Cover Fast Building Systems (Formsteel):

Implement Shed, three sides enclosed

12.0 x 6/9/12 metres	- height 3.0m	\$5,766/\$8,185/\$9,672
	- height 4.0m	\$8,802/\$11,432/\$12,925
18.0 x 6/9/12 metres	- height 3.0m	\$9,425/\$12,962/\$14,981
	- height 4.0m	\$11,517/\$15,389/\$17,349

Prices Exclude GST

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Packing Shed, enclosed with roller door

12.0 x 6/9/12 metres	- height 3.0m	\$6,954/\$9,329/\$10,836
	- height 4.0m	\$8,802/\$11,435/\$12,935
18.0 x 6/9/12 metres	- height 3.0m	\$9,425/\$12,962/\$14,981
	- height 4.0m	\$11,517/\$15,389/\$17,349

Calder Stewart Industries Ltd:

Implement Sheds

	Erected	Kitset
13.5m x 6.0m (x 3.0 m high at eave) gable		
- Roof, back, two ends	\$9,200	\$7,700
- additional 4.5 m bays	\$1,800	\$1,600
13.5m x 6.0m (x 3.0 m high at rear) lean - to		
- Roof, back, two ends	- steel \$8,600	\$7,200
	- timber \$8,000	\$5,500
- additional 4.5 m bays	- steel \$1,700	\$1,500
	- timber \$1,600	\$1,300

Haybarns

13.5m x 6.0m (x 4.25 m high at eave) gable		
- roof only	\$7,200	\$6,000
- additional 4.5 m bays	\$1,700	\$1,500
- back wall/4.5 m bay	\$550	\$400
- end wall/per end	\$900	\$800
13.5m x 6.0m (x 3.65 m high at rear) lean - to		
<u>Steel</u>		
- roof only	\$7,100	\$5,900
- additional 4.5 m bays	\$1,800	\$1,400
- back wall/4.5 m bay	\$500	\$400
- end wall/per end	\$800	\$700
<u>Timber</u>		
- roof and back wall	\$7,300	\$5,200
- additional 4.5 m bays	\$1,800	\$1,400
- end wall/per end	\$700	\$500

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
12/3	3.66	3.51	837	22	19	29.50	POA
12/6	3.66	5.95	1566	42	36	55.16	POA
15/4	4.58	4.59	1733	46	39	61.06	\$3,830
18/5	5.49	5.67	3102	83	71	109.27	\$5,540
21/6	6.41	6.74	5049	136	116	177.85	\$7,960
24/5	7.32	6.20	5276	154	131	201.70	\$8,570
24/7	7.32	5.71	7662	206	176	269.86	\$10,900
24/9	7.32	9.45	9609	260	221	338.00	\$13,200

Note: Ex factory prices

Transportable silos -

Model	Diam. (m)	Overall Height (m)	Bushell Capacity	Wheat (t)	Barley (t)	Oats (t)	Maize (t)	
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 Rakaiia. \$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	\$2,560
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McKendrys

Large square type	2.44m high x 2.44m	\$2,650
Round type	2.7m high x 2.2m diameter	\$1700

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:

<u>Bays</u>	<u>Length</u>	
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

Calder Stewart Industries Ltd:

Pig Sty	\$890
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2.21.17 Shelters (Stock)

<i>Ribtec:</i>		North Island	South Island
Calf/Goat fibreglass hutch (3x2.6m)		\$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

Calder Stewart Industries Ltd:

Goat sheds	\$1,080
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2.21.18 Dog Motels

Ribtec:

Single Fibreglass Kennel	\$284
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Calder Stewart Industries Ltd:

Single	\$500
2 to 4 Bay	\$783 to \$1,310

Prattley Engineering:

Premier Motels	\$598
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2.21.19 Building Materials

Cement Products

Firth Industries:

	Auckland	Hamilton	Christchurch
Prison white cement - 40 kg bag	\$45.00	\$45.00	\$35.10
Handicrete - 40 kg bag	\$12.48	\$12.48	-
Handicrete - 25 kg bag	\$ 8.32	\$ 8.32	\$ 8.84
Mortarmix - 25 kg bag	\$10.27	\$10.27	\$10.14

Prices Exclude GST

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Higgins Redimix Concrete: (Ex Palmerston North and Feilding)

	<u>20 mm</u> (\$/cu.m)	<u>12 mm</u> (\$/cu.m)
10/15/17.5/20 MPa	\$116 to \$135	\$120 to \$139
25/30/35/40 MPa	\$151 to \$197	\$155 to \$201
Blockfill	\$174	
Kerb Mix	\$147	
Small load Surcharge	up to 2 m ³	\$30.00/load
Rural Delivery	\$5.50/Load/km one way over 10 km	

Allied Concrete Ltd:

	<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

Permathene Plastics:

Building and Agricultural black polythene	
1m x 100m (50 μ) to 4m x 50m (250 μ)	\$20.00 to \$125
Permaclips - 500 pack	\$97.60

Edwards and Williams Ltd: (1994 prices)

Black Polythene	
2m x 100m (80 μ) to 2m x 50m (250 μ)	\$48.60 to \$74.90
Clear Polythene	
2m x 100m (50 μ)	\$42.00

2.22 SHELTER AND FARM FORESTRY COSTS

2.22.1 Seedling Trees

Ministry of Forestry:

		Northland	Wairarapa and Wellington	Canterbury
P.radiata	GF 17 to 9	\$200 to \$250	\$150 to \$200	\$200
per1000	GF 22	\$650	-	-
	GF 27	\$800	-	-
	GF 23 to 28	-	\$400 to \$600	-
	GF 22 to 26	-	-	\$900
A.melanoxyton	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-\$450	\$400
Root trainers	(each)	\$1 to \$1.10	-	\$1 to \$1.10

* = stakes and poles

Gibbs Nurseries Ltd: (Dannevirke)

Price per 100

Abelia (Chinese Floribunda)		\$165
Acacia spp (Wattle)		\$102
Alnus Cordata/Glutinosa		\$196/\$244
Cedrus Deodara (Indian Cedar) 2 year		\$147
Chamaecyparis Lawsoniana 2 year		\$124
Cupressus all varieties 2 year trees		\$133
Cortaderia spp. 2 year (Pampas and N.Z. Toi Toi)		\$53 to \$62
Eucalyptus spp. 2 year		\$102
Larix spp (Larch)		\$133
Liquidamber		\$40 per 10
Pinus Radiata	1 year selected	\$27
	1.5 year sturdy	\$63
	2 year transplanted	\$94
Podocarpus (Totara)		\$311
Populus spp. (Poplars)		\$164
Pseudostuga menziesii (Douglas Fir) 2 year old		\$111
Salix Matsudana (Willow)		\$164
Sequoia (Californian Redwood) 2 year		\$164
Tree Lucerne (Tagasaste)		\$111

Ngongotaha Nursery: (Rotorua)

	<u>Price per 100</u>	<u>Price per 1000</u>
Acacia dealbata (Silver Wattle)	\$50	
Alnus rubra (Red Alder) 50 to 70cm	\$200	
Cedrus deodara (Himalayan cedar)	\$250	
Cupressus (Macrocarpa and Lusitanica spp)	\$57	\$480
Cystys proliferus (Tree Lucerne) 40 to 60cm	\$80	\$680
Eucalyptus spp.	\$58	\$480
Juglans nigra (Black Walnut) 40 to 60cm	\$267	
Larix kaempferi (Japanese Larch) (0.75 to 1.2 m)	\$145	
Leyland cypress (0.50 to 0.75 m)	\$350	
Pseudotsuga menziesii(Douglas fir) 0.50 to 1.0 m	\$100	\$850
Pinus radiata GF16 seedlings	\$35	\$185
GF17 seedlings	\$68	\$200
GF23 seedlings	\$68	\$580
GF25 nursery cuttings	\$68	\$580
GF26 nursery cuttings	\$68	\$580
Sequoia sempervirens (Californian Redwood)	\$150	

Halketts Nursery: (Christchurch)

	<u>Price</u>	<u>Price</u>	<u>Price</u>
	<u>per 10</u>	<u>per 100</u>	<u>per 1000</u>
Pinus Radiata 1/0 GF 16	-	\$43	\$186
1/0 GF 17	-	\$45	\$210
1/0 GF 19	-	\$47	\$236
2/0 GF 17	-	\$55	\$283
Pinus Nigra 2 year	-	\$81	\$430
Pinus Patula	\$20 each	\$148	-
Eucalyptus spp	\$17 to \$41	\$96 to \$140	\$718 to \$826
Poplar- all cultivars	\$17	\$102	
Pseudotsuga menziesii (Douglas Fir)			
2 year	-	\$81	\$430
3 year	-	\$92	\$502
Cedrus deodara 2 year	\$18	\$114	-
3 year	\$20	\$142	-
Salix spp	\$17	\$102	-
Wattles - all cultivars	\$20	\$151	-
Acer Negundo (Box Elder) 1 year	\$73	-	-
Alnus Glutinosa (Black Alder)	\$18	\$151	-
Betula Pendula (Silver Birch) 1 to 1.5m	\$73	-	-
1.5 to 2.5m	\$93	-	-
Cortaderia Selloana (Pampas Grass)	\$18	\$151	-
Phormium Tenax (N.Z. Native Flax)	\$18	\$151	-
Sequoia giganteum (Cal Redwood)	\$18	\$151	-
Leyland Cypress	\$44	\$376	-
Cupressus -Arizonica	\$18	\$151	-
-Macrocarpa	\$13	\$64	-

Settlement Discount for Cash on Delivery.

Fords Nurseries Ltd: (Oamaru)

	<u>Price per 100</u>	<u>Price per 1000</u>
Acacia melanoxylon (Black Wattle)	\$132	-
Alnus incana (Grey Alder)	\$132	-
Cedrus deadara (Himalayan Cedar)	\$89	-
Cupressus spp.	\$256	-
Eucalyptus amygdalina	\$132	\$1118
Larix spp. (Larches)	\$132	-
Pinus Ponderosa (Western Pine)	\$58	\$356
Pinus Radiata GF 14	\$43	\$181
GF 16	\$43	\$181
GF 17	-	\$187
GF 19	-	\$298
Salix Matsudana x Alba (Willow)	\$88.90	\$756
Thuja plicata (Red Cedar) 2 year	\$169	-

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>)

DAP Yates fertiliser tablets 12 cents per tree

Tending

Pruning - first lift	\$0.70 to \$1.10 per tree
- second lift	\$0.90 to \$1.20 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	\$13.30 to \$19.55 per tonne
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

Replacement cutter plus tungsten carbide breaker tip	\$140 to \$180
38cm extensions to fit the above	\$62.96
Atlas planting spades	\$70 to \$80
"Striker" planting spade	\$110 to \$125

2.22.5 Shelter/Windbreak/Shade and Weed Cloth

Donaghys:

Windbreak Cloth -

<u>Width</u>		<u>Price</u>
3ft	(0.91 m)	\$50.20 per 50m
6ft	(1.83 m)	\$100 per 50m

Shade Cloth (Woven) -

<u>Grade</u>	<u>Roll Size</u>	<u>Price per metre</u>
V. light Shading	6ft (1.83m)	\$3.28
Light Shading	6ft (1.83m)	\$3.68
Medium Shading	12ft (3.66m)	\$8.68
Heavy Shading	6ft (1.83m)	\$5.00

Shade Cloth (Knitted) -

<u>Grade</u>	<u>Roll Size</u>	<u>Price per metre</u>
Medium Shading	6ft (1.83m)	\$5.36
Heavy Shading	6ft (1.83m)	\$6.24

Woven Weedtex -

Roll size:	0.91 m	\$1.14
	1.80 m	\$2.28

Butterfly clips 200/bag \$40.89

Permathene Plastics Ltd:

Solarshade (woven shade cloth)	1.83m x 50m - 30% shading	\$138
	1.83m x 50m - 50% shading	\$138
	1.83m x 50m - 70% shading	\$163
	1.83m x 50m - 80% shading	\$188
	3.66m x 50m - 50% shading	\$276
Windstop (windbreak cloth)	91cm x 50m	\$42.75
	183cm x 50m	\$85.85
NoWeed - Weed Control Fabric	91cm x 50m	\$52.50
	183cm x 50m	\$105
	366cm x 50m	\$210
Permaclips (solarshade and windstop clips) 500 per carton		\$97.60

Evergreen Horticulture and Hydroponics:

Woven Shade cloth - (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.

Note: A computer with this sort of capability could be expected to cost within the range of \$1800 to \$3500.

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'. Often software will be cheaper if purchased with hardware.

Please note that many software programs are available today in both DOS and Windows format. If you do not require a windows interface/operating system (recommended but not essential) a very much lower cost, lower specification computer, perhaps acquired second hand, would suffice as a beginners set-up. A 286 processor, 640 KB RAM (.64 MB) and monochrome screen should be the minimum specification considered. Costs are likely to be in the \$400 to \$1100 range.

2.23.4 Hardware Prices

Serious Computer Solutions (formerly Eclipse Technology)

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

Professional Systems International:

486 SX-33, 8K Cashe, 4MB Ram, 1.44 Floppy Disk Drive, 420 MB Hard Drive, 1 MB Local bus Graphics Card, 14"SVGA Monitor, Mini Tower Case	\$1474
486 DX2-66 with the above features	\$1677

Computerland:

Compaq Prolinea 4/33s Model 20/W, 486SX, 200 MB Fixed Drive, 4 Mb RAM, 1.44 MB Disc Drive, 33 Mhz Processor, SVGA colour Monitor, DOS v6, Windows 3.1, mouse	\$2375
Compaq Prolinea 4/50s model 20/W, 486SX, 50 Mhz (all other features the same as 4/33 model)	\$2565
Printers - Oki ML 184P 9 pin 10" Dot Matrix	\$410
Oki ML 590 24 pin 10" Dot Matrix	\$859
Hewlett Packard Deskjet 540	\$615
Hewlett Packard Colour Kit	\$79.50

2.23.5 Software Prices

Lincoln Software Programs:

Financial Recording System - FRS Gold	
- Base Module (Cashbook, Budget, Stock, G.S.T, Enterprise)	\$949
- Financial Recording System - Lincoln Cashbook	\$449
- Debtors Module - extra	\$140
- Financial Analysis System - extra	\$180
- Property Amalgamation - extra	\$70
- Evaluation Copy	\$69

Production Recording System PRS2	
-Advanced	from \$595

Livestock Recording System - Pedigree	\$870
- Non-pedigree version	\$610
- Electronic Data Interface	\$220
- Evaluation Copy	\$40

(Price includes a User Guide for each package.)

There is a high level of support and training offered - sixty one agents throughout New Zealand.

Primesoft:

Software for IBM PC compatible computers with min 512 KB RAM.

Systems Manager required for all modules;	\$95
Accounting and Planning (open)	\$695
Land Activity and Costings	\$295
Livestock Reconciliations	\$95
Dairy Production and Sales Analysis	\$125
Payroll (limited) 25 employees	\$445
Packhouse Management	\$695
Spris Livestock; limit 300 breeding animals	\$495
Spris Livestock; greater than 3000 animals	\$895

AgResearch, Whatawhata Research Centre:

Stockpol is a simulation model, designed to evaluate changes in farm policy. With Stockpol, you can experiment with changes to stock classes, stock numbers, buying and selling patterns, lambing and calving dates, target liveweights, shearing, conservation and cropping. Enter the details for the existing and new policies, and use 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 you compare the economics of each policy. Stockpol can also operate as a short-term model for feed-budgeting and monitoring applications.

Continued over page

There are two versions of Stockpol available:

Stockpol Farmer	\$1400
Stockpol Consultant	\$3450

These prices include software, support and training.

Computerland:

Microsoft Office (Standard)	
-includes MS word, MS excel, MS powerpoint	\$879
Microsoft Office (Professional)	
-includes MS word, MS excel, MS powerpoint, MS access	\$1020

Computer Concepts:

Concept Cash Manager - Farm Financial Recording Budgeting	\$960
Concept Stud Manager (Sheep, Deer, Beef, Fine Wool)	\$960
Concept Feed Manager	\$296
Ace Payroll (Small business payroll)	\$330
Concept Cashbook (Small business payroll)	\$496
Concept Invoicing Module	\$296

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

Roger Martyn: (RD3 Ohaupo)

PastureGauge Senior with built in 'Optifeed' feed budgeting software	\$1612
PastureGauge Junior	\$902

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 below).

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	\$0.15

Joining flock fee	\$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

Computer Group (Invercargill):

Breedpac:

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	\$0.15

Sire Referencing (across-flock/herd) -

Data analysis (multi-trait BLUP) per flock/herd fee	\$480 *
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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 *
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* 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	\$29.60
1000 breeding females	\$37.80

2.24 Appendix: Rate of Inflation in New Zealand 1891 to 1994

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-256).

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-256)

= 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-255) compared with 1984 (page B-256)

= 1.0 divided by 0.0681 = 14.68 times more purchasing power.

Year	C.P.I. %	<i>Base Year:</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								

Year	C.P.I. %	<i>Base Year:</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				

continued over page

Year	C.P.I. %	<i>Base Year:</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	.03187	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

Source: Lincoln University

SECTION 3

**LIVESTOCK, CROPPING and HORTICULTURAL
GROSS MARGINS**

ENTERPRISE ANALYSIS

Prepared by P.H. FLEMING B.Agr.Sc. and J.R.OLIVER B.Sc.(Agric.)
Department of Farm and Horticultural Management
LINCOLN UNIVERSITY

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.

3.2 LIVESTOCK GROSS MARGINS

Prices and costs used are those ruling in early 1995.

The gross margins should therefore be adjusted as costs, prices, policies and production parameters change.

The assumption is made that the farm has suitable layout, buildings, equipment and sufficient labour to carry out the routine work associated with each enterprise. Shearing and dipping are done by contract.

Assistance in the preparation of these gross margins was given by Lincoln University Farm Advisory Staff.

3.2.1 Sheep - Breeding ewe flock

SHEEP GROSS MARGIN

Crossbred Ewe Flock, Breeding Own Replacements.
(Hill country)

Capital Stock Wintered:

	<u>No.</u>	<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Breeding Ewes	735 @ \$32 =	\$23,520	1.0	735
2 th Ewes	265 @ \$38 =	\$10,070	1.0	265
Ewe Hoggets	376 @ \$30 =	\$11,280	0.7	263
Rams	20 @ \$100 =	\$2,000	0.8	16
	<hr/>	<hr/>		<hr/>
	1,396	\$46,870		1,279

Dollar Investment in sheep per stock unit = \$36.65

Production Parameters:

Lambing 97% survival to sale.

4% Death rate.

Cull hoggets sold as hoggets/2ths

60% Wether lambs sold prime (f.o.m.)

Sell genuine 5 year old ewes.

Ewes clip 4.5 kg wool; hoggets 3.0 kg.

Income:

291 prime wether lambs	@ \$26		\$7,566
303 store m.s. lambs	@ \$17		\$5,151
103 cull hogget/2ths	@ \$35		\$3,605
5 year old ewes, 170	@ \$20		\$3,400
55 cull ewes to works	@ \$15		\$825
(Total 922 head of stock sold at \$22.29 average price per head).			
5960 kg wool	@\$2.90 (net)		\$17,284
TOTAL INCOME			\$37,831

Expenditure:

Shearing -

Shear 990 sheep	@\$170 per 100	\$1,683	
Shear 370 hoggets	@\$165 per 100	\$611	
Shear 390 lambs	@\$165 per 100	\$644	
Tup crutch 1010 ewes	@ \$40 per 100	\$400	
Main crutch 990 ewes	@ \$50 per 100	\$495	
Crutch 370 hoggets	@\$35 per 100	\$130	\$3,963
Woolshed expenses - plant, packs e.t.c.			\$350

Animal Health -

Drench ewes pre-lamb 990	@ 10¢	\$99	
Drench lambs 2900 doses	@ 5¢	\$145	
(replacements drenched 5 times, stores 3 times)			
Vaccinate ewes 990	@ 35¢	\$347	
Vaccinate hoggets 370	@ 30¢	\$111	
Eartags, footrot and docking etc		\$550	
Dipping sheep 1000	@ 50¢	\$500	
lambs 690	@ 45¢	\$311	\$2,063

Cartage - (based on 100km travel)

Prime lambs 291	@ \$1.95	\$567	
Store lambs 303	@ \$1.76	\$533	
Cull hgts/2th/5yr ewes 273	@ \$2.39	\$652	
Works ewes 55	@ \$2.65	\$146	
Wool 33 bales	@ \$12.50	\$413	\$2,311

Selling Charges -

Yard fees 576 sheep	@ 40¢	\$230	
Commission on \$12,156	@ 5.5%	\$669	\$899
Ram Purchase - landed 5	@ \$400		\$2,000

TOTAL DIRECT COSTS \$11,586

TOTAL GROSS MARGIN (before interest)	\$26,245
GROSS MARGIN per dollar invested in sheep	\$0.56
<u>GROSS MARGIN per Stock Unit</u>	<u>\$20.52</u>

**Gross Margin per Stock Unit at Various
Stock Sale and Wool Prices.**

		WOOL PRICE c/kg (net)		
		230¢	290¢	370¢
AVERAGE	\$18.00	\$14.74	\$17.53	\$21.26
STOCK SALE	\$22.29	\$17.73	\$20.52	\$24.25
PRICE	\$29.00	\$22.41	\$25.20	\$28.93
\$/HEAD				

Interest Cost:

Interest on Capital Stock Value: \$46,870 @ 8% per annum	\$3,750
RETURN per Stock Unit (after interest)	\$17.59

3.2.2 Sheep - '2 year' Flock

SHEEP GROSS MARGIN

Crossbred '2 year' flock, replacement
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	1,000 @ \$26 =		\$26,000	1.0	1,000
Rams	16 @\$100 =		\$1,600	0.8	13
			<hr/>		<hr/>
			1,016		\$27,600
					1,013

Dollar Investment in Sheep per stock unit = \$27.25

Production Parameters:

Lambing 110% survival to sale.
6% Death Rate.
25% first year ewes culled.
Export lamb sire; all lambs sold prime.
Ewes clip 4.0kg wool; lambs not shorn.

Income:

1100 prime m.s. lambs	@ \$30	\$33,000
527 cull ewes to works	@ \$15	\$7,905
3840 kg wool	@ \$2.90 (net)	\$11,136
TOTAL INCOME		\$52,041

Expenditure:

Replacement ewes	595 @ \$25	\$14,875
Shearing -		
Sheep	960 @ \$170 per 100	\$1,632
Tup crutch - ewes	418 @ \$40 per 100	\$167
Main crutch - ewes	965 @ \$50 per 100	\$483
Wool Shed Expenses - plant, packs e.t.c.		\$2,282
		\$250
Animal Health -		
Drench ewes pre-lamb	990 @ 10¢	\$99
Drench lambs (3x)	1100 @ 5¢	\$165
Vaccinate ewes	990 @ 35¢	\$347
Eartags, footrot and docking etc		\$300
Dipping - purchased ewes already dipped		
ewes	418 @ 50c	\$209
lambs - jet	850 @ 15c	\$128
		\$1,248

Cartage -

(based on 40km travel except for replacement ewes, at 80km)

Prime lambs	1100	@	\$1.18	\$1,298	
Works ewes	527	@	\$1.50	\$791	
Replacement ewes	595	@	\$2.25	\$1,339	
Wool - bales	21	@	\$6.86	\$144	\$3,572
Ram Purchase - landed	4	@	\$300		\$1,200

TOTAL DIRECT COSTS **\$23,427**

TOTAL GROSS MARGIN (before interest) **\$28,614**

GROSS MARGIN per dollar invested in sheep **\$1.04**

GROSS MARGIN per Stock Unit **\$28.25**

Gross margin per Stock Unit at various lamb and wool prices:

		WOOL PRICE c/kg net		
		230c	290c	370c
LAMB	\$24	\$19.46	\$21.73	\$24.76
PRICE	\$30	\$25.97	\$28.25	\$31.28
\$/HEAD	\$40	\$36.83	\$39.11	\$42.14

Interest Cost:

Interest on Capital Stock Value:

\$27,600 @ 8% per annum \$2,208

RETURN per Stock Unit (after interest) **\$26.07**

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 (in wool)	850	@ \$40 =	\$34,000	0.85	723
2 th Ewes	150	@ \$50 =	\$7,500	0.80	120
Hoggets (m.s.)	850	@ \$30 =	\$25,500	0.6	510
Rams	13	@ \$120 =	\$1,560	0.7	9
			<hr/>		<hr/>
	1,863		\$68,560		1,362

Dollar Investment in Sheep per stock unit = \$50.34

Production Parameters:

Lambing 85% (survival to winter).

5% death rate (ewes).

All lambs/hoggets wintered, surplus sold after shearing.

15% 2th enter the flock each year.

Ewes clip 4.2 kg wool; hoggets 3.1 kg.

(average 21 and 19 micron diameter, respectively).

Income:

Hoggets (m.s.)	680 @ \$28 (net)	\$19,040
Works ewes	100 @ \$12	\$1,200
4200 kg wool	@ \$6.30 (net)	\$26,460
2635 kg wool	@ \$9.00 (net)	\$23,715
(Total 6,835 kg sold at \$7.34 average price per kg)		

TOTAL INCOME \$70,415

Expenditure:

Shearing -

Shear 1000 sheep	@ \$190 per 100	\$1,900	
Shear 845 hoggets	@ \$190 per 100	\$1,606	
Crutch 1015 ewes	@ \$60 per 100	\$609	
Crutch 850 hoggets	@ \$40 per 100	\$340	
Crutch 900 lambs	@ \$35 per 100	\$315	\$4,770

Wool Shed Expenses -					
Plant, packs etc				\$400	
Classing etc approx.	27¢	per head		\$500	\$900
Animal Health -					
Drench ewes	(2x)	@	30¢	\$600	
Drench lambs/hoggets(5x)		@	5.5¢	\$267	
Vaccinate ewes	990	@	35¢	\$347	
Vaccinate hgts	160	@	30¢	\$48	
Footvax				\$1,000	
Fly spray, zinc sulphate, tags etc				\$800	
Dipping 1900 sheep (incl.lambs)		@	50¢	\$950	\$4,012
Cartage (based on 70km travel) -					
Hoggets	736	@	\$1.78	\$1,310	
Works ewes	100	@	\$2.10	\$210	
Wool	40 bales	@	\$9.59	\$384	\$1,904
Ram Purchase	3	@	\$400 landed		\$1,200
TOTAL DIRECT COSTS					\$12,786
TOTAL GROSS MARGIN (before interest)					\$57,629
GROSS MARGIN per dollar invested in sheep					\$0.84
<u>GROSS MARGIN per Stock Unit</u>					<u>\$42.31</u>

Gross margin per Stock Unit at various hogget and wool prices:

		AVERAGE WOOL PRICE /kg (net)		
		\$5.50	\$7.34	\$10.50
AVGGE HOGGET PRICE \$/HEAD (net)	\$22	\$30.08	\$39.31	\$55.17
	\$28	\$33.07	\$42.31	\$58.17
	\$35	\$36.57	\$45.80	\$61.66

Interest Cost:

Interest on Capital Stock Value:	
\$68,560 @ 8% per annum	\$5,485
RETURN per Stock Unit (after interest)	\$38.28

3.2.4 Beef - Breeding Cow

BEEF GROSS MARGIN

Breeding Cow Herd, Selling Steers
and Surplus Heifers at approx. 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
			<hr/>		<hr/>
			189	\$87,580	890

Dollar Investment in Cattle per stock unit = \$98.40

Production Parameters:

Calves weaned 86%

Death Rate 3%

18% heifers entered in herd each year.

Angus/Hereford cows mated to Angus or Hereford bulls.

Steers and surplus heifers sold as forward store, on farm.

Income:

18 month steers:	42	@\$450 (net)	\$18,900
18 month heifers:	24	@\$380 (net)	\$9,120
(Average price of 18 month cattle = \$425)			
Cull cows	15	@\$370 (net)	\$5,550
Bull	1	@\$900 (net)	\$900
TOTAL INCOME			\$34,470

Expenditure:

Animal Health-

Drench calves,	86 (3x) @ 55¢ per dose	\$142	
Pregnancy test -	100 cows @ \$2.20	\$220	\$362
Bull purchase - landed			\$2,000
Freight and commission (stock net on farm)			\$0

TOTAL DIRECT COSTS	\$2,362
TOTAL GROSS MARGIN (before feed costs and interest)	\$32,108
GROSS MARGIN per dollar invested in cattle	\$0.37
<u>GROSS MARGIN per Stock Unit</u>	<u>\$36.08</u>

Gross Margin per Stock Unit at various weaning percentages and selling prices (18 month cattle):

		AVERAGE SALE PRICE \$/HEAD of 18 Month Cattle		
		\$360	\$425	\$500
%	80%	\$28.86	\$33.21	\$38.30
WEANED	86%	\$31.29	\$36.08	\$41.67
	94%	\$34.53	\$39.89	\$46.17

Interest and Feed Costs:

Interest on Capital Stock Value:			
\$87,580 @ 8% per annum		\$7,006	
Feed - Buy in additional hay			
700 bales @ \$4.00		\$2,800	\$9,806
RETURN per stock unit (after interest and feed)			\$25.06

3.2.5 Bull Beef

BEEF 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 year Friesian Bulls	70	@ \$360 =	\$25,200	4.0	280
Rsg 2 year Friesian Bulls	20	@ \$550 =	\$11,000	6.0	120
	<hr/>		<hr/>		<hr/>
	90		\$36,200		400

Dollar Investment in Cattle per stock unit = \$90.50

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 \$2.30/kg.

Income:

68 Bulls 260 kg C.W. @\$2.30 per kg \$40,664

Expenditure:

Weaner Bulls (100kg) 72 @\$280 \$20,160

Animal Health-

Drench 70 (6x) @40c per dose \$168

Pour On (3x) 70 @\$1.20 \$84

70 @\$2.50 \$175

70 @\$3.50 \$245

Cobalt Injection @\$0.85 \$60

Copper Bullet @\$2.40 \$168

Five in One 70 (2x) @\$0.22 \$30 \$930

Transport

Weaners to Farm @\$7.00 \$504

Finished Bulls to Works @\$12.00 \$816 \$1,320

Levies

AHB, Fed.Farmers, NZMB 68 @ \$13 per head \$884

TOTAL DIRECT COSTS	\$23,294
TOTAL GROSS MARGIN (before interest)	\$17,370
GROSS MARGIN per dollar invested in cattle	\$0.48
<u>GROSS MARGIN per Stock Unit</u>	<u>\$43.43</u>

Gross Margin per Stock Unit at various weaner and bull prices.

		BULL SCHEDULE c/kg		
		210c	230c	260c
WEANER PRICE \$/Head	\$320	\$27.39	\$36.23	\$49.49
	\$280	\$34.59	\$43.43	\$56.69
	\$250	\$39.99	\$48.83	\$62.09

Interest Costs:

Interest on Capital Stock Value:	
\$36,200 @ 8 % per annum	\$2,896
RETURN per stock unit (after interest)	\$36.19

3.2.6 Dairy

DAIRY GROSS MARGIN

Factory Supply Herd

Capital Stock Wintered:

	<u>No.</u>	<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Milking Cows	116 @ \$1,100 =	\$127,600	7.0	812
Milking Heifers	34 @ \$900 =	\$30,600	6.5	221
R 1yr Heifers	36 @ \$500 =	\$18,000	3.5	126
	<hr/>	<hr/>		<hr/>
	186	\$176,200		1,159

Dollar Investment in Cattle per Stock Unit = \$152.03

Production Parameters:

Milk solids production 260 kg per cow.
Calving 90% live calves, surplus sold within two weeks.
Death Rate 5 %.
Culling Rate 17%.

Income:

39,000 kg milk solids	@ \$3.20 per kg	\$124,800	
26 Cull cows	@ \$320 (net)	\$8,320	
97 m.s. calves	@ \$75 (net)	\$7,275	
TOTAL INCOME			\$140,395

Expenditure:

Animal Health	150 @ \$40 per cow		\$6,000
(i.e. bloat,magnesium,mastitis,vet. etc)			
Artificial Breeding -			
Premier Sires Insemination -			
100 cows	@ \$14.70 per cow	\$1,470	
50 cows	@ \$14.10 per cow	\$705	\$2,175
Herd Testing(Self Sample, 4 tests per year)			
Herd Fee		\$200	
4 visits	@ \$20	\$80	
150 cows @ 4 tests	@ \$1.15	\$690	\$970
Shed Expenses	@ \$15.00 per cow		\$2,250
(i.e.detergent, rubberware, filters etc)			
Electricity	@ \$22.00 per cow		\$3,300
TOTAL DIRECT COSTS			\$14,695

TOTAL GROSS MARGIN (before feed costs and interest)	\$125,700
GROSS MARGIN per dollar invested in cattle	\$0.71
<u>GROSS MARGIN per Stock Unit</u>	<u>\$108.46</u>

**Gross Margin per Stock Unit at various
milksolids production levels and milksolids prices:**

		MILKSOLIDS PRICE c/kg		
		280c	320c	370c
kg	220kg	\$80.50	\$91.89	\$106.13
MILKSOLIDS	260kg	\$95.00	\$108.46	\$125.28
per cow	310kg	\$113.11	\$129.16	\$149.22

Interest and Feed costs:

Interest on Capital Stock Value:		
\$176,200 @ 8% per annum	\$14,096	
Feed - Buy in 20% of total requirement (i.e. grazing off, hay etc) @ \$40 per cow	\$6,000	\$20,096
RETURN per Stock Unit (after interest and feed)		\$91.12

3.2.7 Deer - Finishing

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 (Red Deer)	100 @ \$180 =	\$18,000	1.4	140

Dollar Investment in Deer per Stock Unit = \$128.57

Production Parameters:

Death Rate 3%

55 kg Carcase Weight at Slaughter (18 months).

Spiker velvet harvested; proceeds pay for cost of harvesting from all stock.

Income:

97 Stags, 55 kg @ \$5.90 per kg \$31,477

Expenditure:

Purchase Weaner Stags 100 @ \$180 (50 kg L.W.)	\$18,000
Animal Health @ \$4.00 per s.u.	\$560
Freight-	
100 @ \$8.00	\$800
97 @ \$11.50	\$1,116
Levies-	
GIB & AHB venison levy 5,335kg @ 27¢/kg	\$1,440
Meat Inspection Fee 97 @ \$5.00 per head	\$485
	\$1,925
TOTAL DIRECT COSTS	\$22,401
TOTAL GROSS MARGIN (before feed costs and interest)	\$9,076
GROSS MARGIN per dollar invested in deer	\$0.50
<u>GROSS MARGIN per Stock Unit</u>	<u>\$64.83</u>

Note: Refer to table next page for sensitivity analysis.

**Gross Margin per Stock Unit at various
weaner purchase prices and venison schedule prices.**

		VENISON SCHEDULE c/kg		
		510c	590c	700c
WEANER	\$230	-\$1.38	\$29.11	\$71.03
PURCHASE	\$180	\$34.34	\$64.83	\$106.74
PRICE	\$140	\$62.91	\$93.40	\$135.31
\$/HEAD				

Interest and Feed Costs:

Interest on Capital Stock Value:		
\$18,000 @ 8% per annum	\$1,440	
Winter Feed - Buy in additional hay and concentrates @ \$10 per head	\$1,000	\$2,440
RETURN per Stock Unit (after interest and feed)		\$47.40

3.2.8 Deer - Breeding Herd

DEER GROSS MARGIN

Red Deer Herd, Selling 18 Month Stags
and Surplus Weaner Hinds.

Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
M.A.Hinds	130	@ \$275 =	\$35,750	1.9	247
18 Month Hinds	20	@ \$250 =	\$5,000	1.8	36
6 Month Hinds	21	@ \$115 =	\$2,415	1.2	25
6 Month Stags	64	@ \$180 =	\$11,520	1.4	90
Breeding Stags	5	@ \$400 =	\$2,000	2.1	11
	<hr/>		<hr/>		<hr/>
	240		\$56,685		409

Dollar Investment in Deer per Stock Unit = \$138.59

Production Parameters:

Calving 85% survival to sale.

Death Rate 4%.

15% Rising 2 year hinds enter the herd each year.

18 mth stags slaughtered at 55 kg C.W.

(Spiker velvet harvested; proceeds pay for cost of harvesting from all young stags.)

Surplus weaner hinds sold net on farm.

All Breeding stock over 15 months T.B. tested every two years (herd previously accredited).

Income:

Stags - 55 kg	61	@ \$5.90 per kg	\$19,795
Weaner hinds	43	@ \$90 (net)	\$3,870
C.f.a. hinds	14	@ \$250	\$3,500
C.f.a. stag	1	@ \$350	\$350
15 kg velvet (5 breeding stags)		@ \$130	\$1,950

TOTAL INCOME

\$29,465

Expenditure:

Purchase Sire Stag	1	@ \$3,000	\$3,000
Animal Health		@ \$4.00 per s.u.	\$1,636
Velveting Stags	5	@ \$20.00	\$100

Freight -

61	@ \$8.00	\$488	
15	@ \$11.50	\$173	\$661

Levies -

GIB & AHB Venison levy	3455kg	@ \$0.27	\$933	
Meat Inspection fee per head		@ \$5.00	\$310	
GIB & AHB Velvet levy	15 kg	@ \$3.30	\$50	\$1,293

TOTAL DIRECT COSTS \$6,690

TOTAL GROSS MARGIN (before feed costs and interest) \$22,775

GROSS MARGIN per dollar invested in deer \$0.40

GROSS MARGIN per Stock Unit \$55.68

**Gross Margin per Stock Unit at various
weaner hind prices and venison schedule prices.**

WEANER		VENISON SCHEDULE c/kg		
		510c	590c	700c
HIND	\$70	\$47.02	\$53.58	\$62.60
PRICE	\$90	\$49.12	\$55.68	\$64.71
\$/HEAD (net)	\$115	\$51.75	\$58.31	\$67.33

Interest and Feed Costs:

Interest on Capital Stock Value:

\$56,685 @ 8% per annum	\$4,535
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Winter Feed - Buy in additional feed @ \$10 per head (240)	\$2,400	\$6,935
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RETURN per Stock Unit (after interest and feed) \$38.73

3.2.9 Deer - Velvetting

DEER GROSS MARGIN Velvet Production - Wapiti hybrid (greater than 2/3 Wapiti)

Capital Stock Wintered:

	<u>No.</u>	<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Spikers	12 @ \$450 =	\$5,400	1.8	21.6
Rsg 2yr Stags	10 @ \$600 =	\$6,000	2.25	22.5
Rsg 3yr Stags	8 @ \$600 =	\$4,800	2.5	20
Rsg 4yr stags	7 @ \$700 =	\$4,900	2.5	17.5
Rsg 5yr stags	7 @ \$800 =	\$5,600	2.5	17.5
5-8yr stags	<u>6 @ \$800 =</u>	<u>\$4,800</u>	2.5	<u>15</u>
	50	\$31,500		114

Dollar Investment in Deer per Stock Unit = \$276.32

Production Parameters:

Death Rate 4%

Velvet yields, grades and prices are extremely variable. The following assumptions have been made for this gross margin.

Spiker	0.75kg	Spiker grade
2yr	2.00kg	C grade
3yr	2.7kg	B grade
4yr	3.5kg	B grade
5yr	4.0kg	A grade
6yr plus	5.5kg	A grade

No regrowth income is budgeted.

Income:

Velvet	12 Spiker	@ 0.75kg	@ \$60/kg Spiker	\$540
	10 2yr Stags	@ 2.0kg	@ \$110/kg C grade	\$2,200
	8 3yr Stags	@ 2.7kg	@ \$130/kg B grade	\$2,808
	7 4yr Stags	@ 3.5kg	@ \$130/kg B grade	\$3,185
	7 5yr Stags	@ 4.0kg	@ \$190/kg Wapiti	\$5,320
	6 5-8 yr Stags	@ 5.5kg	@ \$190/kg Wapiti	\$6,270
	10 Cull Stags	@ \$450 per head		<u>\$4,500</u>

TOTAL INCOME

\$24,823

Expenditure:

Purchase - Weaner Stags	12	@ \$450		\$5,400
Velveting using veterinarian -				
1st cut	50	@ \$30	\$1,500	
2nd cut	15	@ \$25	\$375	\$1,875
Animal Health -				
Pour on	2	@ \$2.61	\$261	
Copper bullet	1	@ \$4.50	\$225	\$486
Levies-				
Venison - MAF inspection		@ \$5	\$50	
G.I.B		@ 0.27c/kg	\$350	
Velvet - G.I.B & AHB levy at 136kg		@ \$3.30	\$449	\$849
TOTAL DIRECT COSTS				\$8,610
TOTAL GROSS MARGIN (before feed costs and interest)				\$16,213
GROSS MARGIN per dollar invested in deer				\$0.51
GROSS MARGIN per Stock Unit				\$142.22

Gross Margin per Stock Unit at various velvet prices and herd velvet yields.

		VELVET YIELD /50 stags		
		120 kg	136 kg	155 kg
AVERAGE	\$130	\$101	\$119	\$140
VELVET	\$149	\$122	\$142.22	\$166
PRICE	\$180	\$154	\$179	\$208
\$/KG				

Interest and Feed Costs:

Interest on Capital Stock Value:		
\$31,500 @ 8%		\$2,520
Winter Feed - buy in additional feed @ \$14 per head		\$700
		\$3,220
RETURN per stock unit (after interest and feed)		\$113.97

3.2.10 Pig - Breeding

PIG GROSS MARGIN Housed Sows Selling Weaners

Capital Stock

Sows	50	@ \$400	\$20,000	
Boars	2	@ \$750	\$1,500	\$21,500

Production Parameters:

20 Weaners sold per sow per year
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	@ \$60	\$60,000	
Chopper Sows	15	@ \$180	\$2,700	
Chopper Boar	1	@ \$180	\$180	

TOTAL INCOME \$62880

Expenditure:

Replacement Stock Purchase -

Boar	1	@ \$875	\$875	
Gilts	17	@ \$350	\$5,950	\$6,825

Home milled feed-

Breeder	62.7 t	@ \$342.23	\$21,458	
Creep	2.0 t	@ \$580.00	\$1,160	
Weaner	23.1 t	@ \$520.00	\$12,012	\$34,630

Animal Health -	@ \$30 per Sow	\$1,500	
Repairs to pens, feeders and water supply (in pen)		\$2,000	
Electricity		\$2,000	

TOTAL DIRECT COSTS \$46,955

TOTAL GROSS MARGIN (before interest) \$15,925

GROSS MARGIN per pig \$318.50

GROSS MARGIN per \$ invested in pigs \$0.74

**Gross Margin per Sow
at varying weaner prices and feed costs.**

		WEANER PRICE \$/HEAD		
		\$55	\$60	\$65
Average	\$440	\$138	\$238	\$338
Feed Cost				
Used \$/t	\$394	\$219	\$318.50	\$419
(Breeder				
Creep	\$360	\$279	\$379	\$479
& Weaner)				

Interest on Capital Stock Value:

Interest on Capital Stock Value:
\$21,500 @ 8% per annum

\$1,720

RETURN per Pig after interest

\$284.10

3.2.11 Pig - Finishing

PIG GROSS MARGIN
Purchase Weaners and Finish
to 95% Bacon 5% Pork

Capital Stock:

Weaners 1000 @ \$60 \$60,000

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:

49 Porkers	@ \$119.28	\$5,845
926 Baconers	@ \$168.26	\$155,815

TOTAL INCOME \$161,660

Expenditure:

Replacement stock purchase - 1000 weaners @ \$60	\$60,000
Home milled feed -	
Grower mix 191 t @ \$360	\$68,760
Animal Health @ \$2 per weaner	\$2,000
Repairs - water supply (in-pen), pens and feeders	\$2,000
Electricity	\$2,000
Freight @ \$1 per weaner and \$3 per Porker/Baconer	\$4,000

TOTAL DIRECT COSTS \$138,760

TOTAL GROSS MARGIN (before interest) \$22,900

GROSS MARGIN per weaner \$22.90

GROSS MARGIN per \$ Invested \$0.38

**Gross Margin per Weaner
at various Baconer prices and feed costs.**

		BACONER PRICE \$/head		
		\$160	\$168	\$180
Grower	\$400	\$7.85	\$15.26	\$26.37
Feed	\$360	\$15.49	\$22.90	\$34.01
	\$320	\$22.13	\$30.54	\$41.65

Interest Cost:

Interest on Capital Stock Value:	
\$60,000 @ 8% per annum (13 weeks)	\$1,200
RETURN per weaner (after interest)	\$21.70

3.2.12 Poultry - Eggs

POULTRY GROSS MARGIN

Capital Stock: (average value)

Laying Hens 1000 @ \$3.60

\$3,600

Production Parameters:

24 dozen eggs per laying hen laying life 12 months

4 % Deaths

Income:

Eggs 24,000 Dozen @ \$1.70

\$40,800

Expenditure:

Replacement Pullets @ \$7.20 per head \$7,344

Feed @ 65c per dozen eggs \$15,600

Power @ 2c per dozen eggs \$480

Repairs to caging @ 2c per dozen eggs \$480

Packaging, Freight to supermarket @ 20c per dozen eggs \$4,800

Disposal of cull hens @ 5c per hen \$490

TOTAL DIRECT COSTS

\$29,194

TOTAL GROSS MARGIN per 1000 Hens (before interest)

\$11,606

GROSS MARGIN per dollar invested in hens

\$3.22

**Gross Margin per 1000 hens at various
feed and egg prices.**

		EGG PRICE \$ per dozen		
		\$1.40	\$1.70	\$2.00
FEED COST	\$0.70	\$3,206	\$10,406	\$17,606
per dozen Eggs produced	\$0.65	\$4,406	\$11,606	\$18,806
	\$0.60	\$5,606	\$12,806	\$20,006

Interest Cost:

Interest on Capital Stock Value:

\$3,600 @ 8% per annum

\$288

RETURN per 1000 hens (after interest)

\$11,318

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:

6 tonnes per ha @ \$320 per tonne (delivered) \$1,920

Expenditure (per hectare):

Cultivation -					
63 kW tractor -	4.0 hours	@ \$14/hour	\$56		
(Fuel \$8/hr; R&M \$6/hr)					
Seed -	220 kg/ha	@ \$650/tonne	\$143		
Fertilizer -					
Cropmaster 20	100 kg/ha	@ \$438/tonne	\$44		
Urea	150 kg/ha	@ \$408/tonne	\$61		
Ammonium Sulphate	100 kg/ha	@ \$251/tonne	\$25	\$130	
Weed, Pest and Disease -					
Commando	4 l/ha	@ \$26.55/litre	\$106		
Cougar	0.75 l/ha	@ \$37.00/litre	\$28		
Glean	15 g/ha	@ \$1.35/g	\$20		
Cereous	0.5 l/ha	@ \$96.00/litre	\$48		
Cycocel	1.5 l/ha	@ \$13.40/litre	\$20		
Applications	4	@ \$27	\$108	\$330	
Irrigation -	75mm (2x)	@ \$27		\$54	
(Electricity \$18.00; R&M \$9.00)					
Harvest -	6 tonnes	@ \$30/tonne		\$180	
(in silo; contract)					
Freight -	6 tonnes	@ \$21.65/tonne		\$130	
(silo to port 40 km)					
TOTAL DIRECT COSTS					\$1023
<u>GROSS MARGIN per Hectare</u>					<u>\$897</u>

**Gross Margin per Hectare at various
selling prices and yields.**

		YIELD Tonnes/ha		
		4.5 t	6.0t	7.5t
PRICE	\$285	\$337	\$687	\$1037
PER	\$320	\$495	\$ 897	\$1300
TONNE	\$360	\$675	\$1137	\$1600

3.3.2 Barley

BARLEY GROSS MARGIN Spring Barley (Fleet; Feed)

Income:

6.5 tonnes per ha @ \$205 per tonne \$1,333

Expenditure (per hectare):

Cultivation -

63 kW tractor - 3.5 hours @ \$14/hr \$49
(Fuel \$8/hr; R&M \$6/hr)

Seed - 120 kg/ha @ \$560/tonne \$67

Fertiliser -

Cropmaster 20 150 kg/ha @ \$438/tonne \$66

Urea 200 kg/ha @ \$408/tonne \$82 \$148

Weed, Pest and Disease -

Avadex 3.5 l/ha @ \$16.50/litre \$58

Cougar 0.5 l/ha @ \$37.00/litre \$19

Glean 12 g/ha @ \$1.35/g \$16

Duplosan 0.75 l/ha @ \$24.40/litre \$18

Applications 3 @ \$27 \$81 \$192

Irrigation - 75mm (2x) @ \$27 \$54
(Elec. \$18.00; R&M \$9.00)

Harvest - 6.5 tonnes @ \$30/tonne (in silo; contract) \$195

Freight - 6.5 tonnes @ \$21.65/tonne (silo to port 40 km) \$141

TOTAL DIRECT COSTS \$846

GROSS MARGIN per Hectare \$487

Gross Margin per hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		5.0t	6.5t	8.5t
PRICE	\$180	\$132	\$324	\$581
PER	\$205	\$257	\$487	\$793
TONNE	\$235	\$407	\$682	\$1048

3.3.3 White Clover

WHITE CLOVER GROSS MARGIN

(Kopu, specialist wide rows)

Income:

400 kg(M.D.) per ha @ \$4.00 per kg \$1,600

Expenditure(per hectare):

Cultivation (direct drill into crop stubble) -			
63 kW tractor -	1 hour	@ \$14/hour	\$14
(Fuel \$8/hr; R&M \$6/hr)			
Seed -	3 kg/ha	@ \$20.00 /kg	\$60
Fertiliser - Cropmaster 20,	50 kg/ha	@ \$438/t	\$22
Urea	50 kg/ha	@ \$408/tonne	\$20
Weed, Pest and Disease -			
Roundup	1 l/ha	@ \$13.50/litre	\$14
Phorate	5 kg/ha	@ \$7.73/kg	\$39
Gallant	2.5 l/ha	@ \$37.55/litre	\$94
Applications 2		@ \$27	\$54
Buster	5 l/ha	@ \$27.60/litre	\$138
Inter row spray		@ \$35/ha	\$35
Reglone	3 l/ha	@ \$19.10/litre	\$57
Application		@ \$27	\$27
			\$458
Irrigation -	75mm (3x)	@ \$27	\$81
(Elec. \$18.00; R&M \$9.00)			
Mowing -	1 ha/hr	@ \$15	\$15
Harvest (contract)			\$200
Freight -	570 kg (FD)	@ \$28/tonne	\$16
Seed Dressing -	570 kg	@ 33¢/kg	\$188

TOTAL DIRECT COSTS \$1,074

GROSS MARGIN per Hectare \$526

Gross margin per Hectare at various selling prices and yields.

		YIELD kg (MD) /Hectare		
		250kg	400kg	600kg
PRICE c/kg	360c	-\$98	\$366	\$984
	400c	\$2	\$526	\$1,224
	460c	\$152	\$766	\$1,584

3.3.4 Ryegrass

RYEGRASS GROSS MARGIN

(Embassy)

Income:

1250 kg(M.D.) per ha @ \$1.40 per kg	\$1,750
Straw: 7 bales per ha @ \$10	\$70

TOTAL INCOME

\$1,820

Expenditure(per hectare):

Cultivation -				
63 kW tractor -	3.5 hours	@ \$14/hour		\$49
(Fuel \$8/hr; R&M \$6/hr)				
Seed -	10 kg/ha	@ \$6.00/kg		\$60
Fertiliser - Cropmaster 20,	100 kg/ha	@ \$438/t	\$44	
Urea (split appln.)	260 kg/ha	@ \$408/tonne	\$106	\$150
Weed, Pest and Disease -				
Roundup	2.5 l/ha	@ \$13.50/litre	\$34	
Trimec	3.5 l/ha	@ \$13.30/litre	\$47	
Commando	5 l/ha	@ \$26.55/litre	\$133	
Folicur	0.75 l/ha	@ \$78.20/litre	\$59	
Application costs		@ \$27/appl.	\$108	\$381
Irrigation -	75mm (2x)	@ \$27		\$54
(Elec. \$18.00; R&M \$9.00)				
Harvest - Windrow (contract)		@ \$74/ha	\$74	
Header (contract)			\$160	\$234
Freight -	1.5 t (FD)	@ \$28/tonne		\$42
Seed Dressing -	1500 kg	@ 16¢/kg		\$240

TOTAL DIRECT COSTS

\$1,210

GROSS MARGIN per Hectare

\$610

Gross margin per Hectare at various selling prices and yields.

		YIELD kg (MD) /Hectare		
		900kg	1250kg	1700kg
PRICE \$/kg	\$1.20	\$19	\$360	\$798
	\$1.40	\$199	\$610	\$1,138
	\$1.70	\$469	\$985	\$1,648

3.3.5 Field Peas

FIELD PEAS GROSS MARGIN (Marrowfat)

Income:

4 tonnes per ha @ \$410 per tonne (contract) \$1,640

Expenditure (per hectare):

Cultivation -			
63 KW tractor -	3.5 hrs	@ \$14/hr	\$49
(Fuel \$8; R&M \$6/hr)			
Seed -	290 kg/ha	@ \$1000/tonne	\$290
Fertilizer -			
Superphosphate	125 kg/ha	@ \$219/t	\$27
Weed, Pest and Disease -			
Tropotox Plus	2 l/ha	@ \$9.50/litre	\$19
Bladex	2.5 l/ha	@ \$17.60/litre	\$44
Topas	300 ml/ha	@ \$101/litre	\$30
Applications (contract) 2		@ \$27	\$54
Irrigation -			
2 x 75mm application		@ \$27 per application	\$54
(Elec. \$18; R&M \$9)			
Windrow		@ \$74/ha	\$74
Harvest -	4 tonnes/ha	@ \$45/tonne	\$180
(in silo; contract)			
Freight -	4 tonnes	@ \$21.65/tonne (40 km)	\$87
TOTAL DIRECT COSTS			\$908
GROSS MARGIN per Hectare			\$732

Gross Margin per Hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		3t	4t	5.5t
PRICE	\$320	\$119	\$372	\$752
PER	\$410	\$389	\$732	\$1,247
TONNE	\$500	\$659	\$1,092	\$1,742

3.3.6 Vining Peas

VINING PEA GROSS MARGIN

Income:

6 tonnes per ha @ \$265 per tonne	\$1,590
Pea vine 50 bales @ \$3.50 (net)	\$175

TOTAL INCOME \$1,765

Expenditure (per hectare):

Cultivation -			
63 kW tractor - 3.5 hrs	@ \$14/hr		\$49
(Fuel \$8; R&M \$6/hr)			
Seed - 260 kg/ha	@ \$1.40 per kg		\$364
Fertilizer -			
Ammophos 8.14.13.1 150 kg/ha	@ \$506/t		\$76
Weed, Pest and Disease -			
Bladex 2.5 l/ha	@ \$17.60/litre	\$44	
Tropotox Plus 2 l/ha	@ \$9.50/litre	\$19	
Application (combined; contract)		\$27	\$90
Irrigation - 3 x 75mm application	@ \$27		\$81
(Elec. \$18.00; R&M \$9.00)			
Harvest - Purchaser of peas			\$0
Freight - " " "			\$0

TOTAL DIRECT COSTS \$660

GROSS MARGIN per Hectare \$1,105

**Gross Margin per Hectare at various changes
in yield. (Assume pea quality is constant
i.e. \$265 contract price per tonne)**

YIELD Tonnes/Hectare		
4t	6t	8.5t
\$575	\$1105	\$1,768

3.4 PROCESS CROPS - PRODUCTION COST MODELS

Editors' note:

The following production cost models (compiled October 1993) 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 1993/94
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	\$55.78 /hr	\$83.67
Preparation seedbed			
roll once	0.4 hrs	\$43.69 /hr	\$17.47
plough once	1.1 hrs	\$63.57 /hr	\$69.93
maxitill 3 times	1.2 hrs	\$55.78 /hr	\$66.94
roll once	0.4 hrs	\$43.69 /hr	\$17.47
Pre-emergence spray contract		\$17.00 /ha	\$17.00
Treflan	2.1 l	\$12.44 /l	\$26.12
Sowing contract		\$110.00 /ha	\$110.00
seed	110 kg	\$6.11 /kg	\$672.10
fertiliser - Cropmaster 15	0.375 t	\$463.00 /t	\$173.63
Post emergence spray contract		\$17.00 /ha	\$17.00
Basagran	2 l	\$37.05 /l	\$74.10
Cittowet	0.1 l	\$11.64 /l	\$1.16
ground spray contract		\$17.00 /ha	\$17.00
Sumisclex	2 l	\$57.51 /l	\$115.02
ground spray contract		\$17.00 /ha	\$17.00
Sumisclex	2 l	\$57.51 /l	\$115.02
Irrigation 5 times	30 hrs	\$18.22 /hr	\$546.60
TOTAL GROWING COSTS			\$2,173.23
REVENUE			
Price received* (11.5-12)	per tonne	\$300	\$300
Crop yield paid weight	tonnes per ha	8 t	9 t
			10 t
TOTAL REVENUE		\$2,400	\$2,700
Less growing Costs (from above)		\$2,173	\$2,173
SURPLUS		\$227	\$527

* 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 1993/94
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	\$63.57 /hr	\$69.93
disc and harrow once	1.0 hrs	\$55.78 /hr	\$55.78
power harrow twice	2.5 hrs	\$79.31 /hr	\$198.28
level once	0.4 hrs	\$55.78 /hr	\$22.31
Sowing contract		\$65.00 /ha	\$65.00
seed	12 kg	\$13.80 /kg	\$165.60
nitro 12:10:10	0.3 t	\$644.00 /t	\$193.20
Pre emergence spray			
contract boom spray		\$28.00 /ha	\$28.00
Roustabout	3.0 l	\$34.32 /l	\$102.96
Post emergence spray			
aerial spray contract		\$28.00 /ha	\$28.00
boom spray contract		\$28.00 /ha	\$28.00
Hallmark twice	0.5 l	\$90.00 /ha	\$45.00
Inter-row cultivation contract		\$30.00 /ha	\$30.00
Maintenance of Land			
flail stubble once	1 hr	\$55.78 /hr	\$55.78
TOTAL GROWING COSTS			\$1,169.09
REVENUE			
Price received*	per tonne	\$117	\$117
Crop yield paid weight	tonnes per ha	15 t	17 t
TOTAL REVENUE		\$1,755	\$1,989
Less growing Costs (from above)		\$1,169	\$1,169
SURPLUS		\$586	\$820

* Editors' Note: See also *Section 1.12.2* for further contract price information

3.4.3 Tomato Transplants (Source: N.Z. Vegetable and Potato Growers Federation (Inc.))

TOMATO TRANSPLANTS (PROCESS)

Production Cost Model 1993/94

Hawkes Bay/Heretaunga Plains District

<u>Growing Costs Operation</u>	<u>Hours/Qty</u>		<u>Unit</u>	<u>Total Cost</u>
	<u>Hectare</u>		<u>Rate</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	\$52.50
rollatill twice	1.3	hrs	\$40.38 /hr	\$52.50
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	\$260.00
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	\$572.35
TOTAL GROWING COSTS				\$4,681.84
REVENUE				
Price received*	per tonne		\$112	\$112
Crop yield paid weight	tonnes per ha	55 t	63 t	70 t
TOTAL REVENUE			\$6,160	\$7,840
Less growing Costs (from above)			\$4,682	\$4,682
SURPLUS			\$1,478	\$3,158

* 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
Hawkes Bay/Heretaunga Plains

<u>Growing Costs Operation</u>	<u>Hours/Qty</u>		<u>Unit</u>	<u>Total Cost</u>
	<u>Hectare</u>		<u>Rate</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
Crop yield paid weight	tonnes per ha		2 t	2.5 t
				3 t
TOTAL REVENUE			\$4,300	\$5,375
Less harvesting costs:				
Picking	\$464 per tonne			
Assembling and loading	\$86 per tonne			
Cartage	<u>\$50 per tonne</u>			
Total	\$600 per tonne		\$1,200	\$1,500
Less growing Costs (from above)			\$1,183	\$1,183
SURPLUS			\$1,917	\$2,692

* 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)

2300 TCE per hectare @ \$9.80 per TCE	\$22,540
(TCE = Tray Carton Equivalent)(61% packout)	

Expenditure (per hectare):

Fertiliser		\$280
Chemicals		\$2,040
Casual wages	- pruning	\$420
	- thinning	\$750
	- picking	\$2,640
	- packing	\$670
		\$4,480
Packing cost		\$2,970
Freight		\$520
TOTAL DIRECT COSTS		\$10,290
GROSS MARGIN PER HECTARE		\$12,250
<u>GROSS MARGIN per Tray Carton Equivalent</u>		\$5.33

3.5.2 Export Kiwifruit

EXPORT KIWIFRUIT GROSS MARGIN

Income: (Based on effective planted area)

5,100 Trays per hectare @ \$4.52 per tray (net of cool storage and levies)	\$23,050
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Expenditure (per hectare):

Fertiliser	\$530
Pollination	\$600
Spraying and Chemicals	\$1,150
Casual Wages - Pruning	\$2,700
- Picking	\$970
	\$3,670
Grade and Pack	\$9,080
Freight	\$800
TOTAL DIRECT COSTS	\$15,830
GROSS MARGIN PER HECTARE	\$7,220
<u>GROSS MARGIN per Tray</u>	<u>\$1.42</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)

10,000 Mixed Sized tubers @ \$1.70 average \$17,000

Production Parameters:

	Tuber Diameter	
Planting Specification	2 to 3 cm	60 to 80 per m ²
	4 to 5 cm	30 per m ²
	8 cm	15 per m ²

Rows 1m wide and 0.5m 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:

Flower Stems	9750	@	\$1.00 average	\$9,750
Tuber export	5000	@	\$1.40 average	<u>\$7,000</u> \$16,750

Expenditure:

Flowers -

Picking, Grading and Packing (25c per stem)	\$2,438	
Commission 12.5%	\$1,218	
Levy 2%	\$195	\$3851

Tubers -

Cultivation and planting			
- casual labour	20 hrs	@ \$10	\$200
- machinery Hire	6 hrs	@ \$40	\$240
Lifting and Grading			
- labour	250 hrs	@ 10	\$2,500
Lifting			
- machinery hire	5 hrs	@ 50	\$250
Washing, Curing and Storing	70 trays (1250mm x 900mm)		
(contract)	@ \$15	\$1050	\$4240
Fertilizer			\$150
Weed Control			\$250
Pest and Disease			<u>\$550</u>

TOTAL DIRECT COSTS \$9,041

TOTAL GROSS MARGIN per 10,000 Tubers (before interest) \$7,709

GROSS MARGIN per dollar invested in Calla Tubers \$0.45

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 Flowers 5500 Tubers
Price of Flowers/ Tubers	\$0.90/ \$1.26	\$5,039	\$6,174	\$7,312
	\$1.00/ \$1.40	\$6,418	\$7,709	\$8,998
	\$1.10/ \$1.54	\$7,799	\$9,241	\$10,686

Interest Costs

Interest on Capital invested in Tubers
\$17,000 @ 8% \$1,360

RETURN per 10,000 tubers after interest \$6,349

SECTION 4

TAXATION

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NOTE:

At the time of writing (December 1994), 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 1976 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 Changes since last year

In recent years there have been rapid and dramatic tax changes. The objectives of the tax reform process were described as:

- to broaden the income and consumption tax bases;
- to reduce the scope for avoidance and evasion;
- to lower the rates of tax;
- to make the system fairer; and
- to simplify the tax system and make it more certain.

In addition, the tax legislation is being rewritten to make it more "readable".

With respect to farming, the scope of changes to the tax legislation during 1994 was not as wide ranging as in previous years. 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* (page D-63) 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 two types of payment:

- **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
Agricultural work	15
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 \$5000 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 for 1995 and subsequent income years.

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 \$2500 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 \$2500 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 \$2500 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*, page D-63). 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 under-estimated, 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:

1. 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.

2. 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 current interest rate is 9% p.a.

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 current interest rate is 4.5% p.a.

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 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 1995 tax return is:

	\$
Tax on total income	15,000
Less rebates	<u>50</u>
Tax payable	14,950
Less PAYE deductions	<u>1000</u>
RESIDUAL INCOME TAX	13,950
Less 1995 provisional tax already paid	<u>10,000</u>
TERMINAL TAX	<u>3950</u>

His 1994-95 terminal tax payment will be due on 7 February 1996. 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 9% p.a. (on a daily basis) from 7 March 1995 to 7 February 1996 would be due on his terminal tax payment (interest of \$328 in this example).

For the 1996 year, his provisional tax will be based on the 1995 residual income tax plus 5%, a total of \$14,648 (\$13,950 plus 5%). The provisional tax payments for 1996 are due as follows:

	\$
7 July 1995 (one third)	4883
7 November 1995 (one third)	4883
7 March 1996 (one third)	4882

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 \$2500, 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 \$2500.
- IR6 - Estate or Trust return.
- IR7 - Partnership return.

Due Dates for Annual Returns

Annual returns for IR 5 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:

1. A refund of tax overpaid (or a credit that can be offset against other tax due).
2. 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*, page D-63.
3. No adjustment required.
4. 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.

1. 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.

2. 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.

3. 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.

4. 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*, page D-9, 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.

Note: "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.

Note: There are complex rules for 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).
- or
- 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.
- or
- 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).

- or 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.
 - or 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 4,500m² and was occupied as the taxpayers residence; or where the taxpayer used the land primarily for farming or agriculture and it is capable of being worked as 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 income:

1. Prize money from horse or dog racing, or trotting.
2. Prizes from Lotto, Instant Kiwi and Bonus Bonds.
3. Gifts, Legacies, and Capital Gains are not regarded as income.
4. 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:

1. 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.)

2. Transitional Tax Allowance

<i>Assessable Income</i>	<i>Rebate</i>
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.)

3. 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.

4. 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.

5. 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.

6. 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

7. 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).

1. Family Support Tax Credit

The rates for the year ended 31 March 1995 are:

<i>Family income</i>	<i>Tax credit</i>
Under \$18,750	\$2,184 for the oldest child or each child aged 16, 17, or 18 years of age plus \$326 for each additional child less than 16 years old.
Between \$18,750 and \$27,000	As above, less 18% of the income above \$18,750.
Over \$27,000	As above, less \$1,260 and 30% of the excess income over \$27,000.

The tax credit is reduced if the taxpayer becomes ineligible to receive the tax credit.

For subsequent income years, the abatement of the tax credit will commence at \$20,000.

2. 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 increases the after tax income to \$16,640 (for a family with one child). This amount is increased by \$2,184 for each child aged 16, 17, or 18 years of age and \$1,144 for each additional child less than 16 years old.

(Note: These amounts are to be increased for subsequent income years.)

The Guaranteed Minimum Family Income tax credit and the Family Support tax credit can no longer be paid through the PAYE system, but is now either paid by the Social Welfare Department, or is added to the year end tax refund.

Final adjustments, if any, are made through the taxpayers 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 1995:

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 IR 12 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 income tax assessment would be as follows:

Salary	\$20,000
Interest - Savings Bank (\$760 + \$240)	\$1,000
Dividends - (\$300 + \$100)	<u>\$400</u>
TOTAL ASSESSABLE INCOME	<u>\$21,400</u>
INCOME TAX on \$21,400 =	\$5,136
less: REBATES:	
<i>Donations</i>	
Lesser of \$500 or $33\frac{1}{3}\%$ of \$30 (school fees not eligible)	\$10.00
<i>Low Income Rebate</i>	
Maximum possible rebate =	\$855.00
<u>Deduct</u> four cents for each dollar by which income exceeds \$9,500 (\$21,400 - \$9,500 = \$11,900)	
4% of \$11,900 =	\$476.00
	<u>\$379.00</u>
Total rebates	<u>\$389</u>
TAX PAYABLE	\$4,747
less: TAX ALREADY PAID:	
PAYE already paid	\$4,000.00
Resident withholding tax paid	\$240.00
Imputation credit	<u>\$100.00</u>
	<u>\$4340</u>
TERMINAL TAX	<u>\$407</u>

Note 1: 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: Husband</i>	<i>\$21,400.00</i>
<i>Wife</i>	<i><u>\$600.00</u></i>
<i>Total</i>	<i><u>\$22,000.00</u></i>
Tax Credit for one child:	\$2,184
less Abatement:(see page D-17)	
18% of excess over \$18,750	
(i.e. 18% of \$3,250)	<u>\$585</u>
Family Support Tax Credit	<u>\$1,599</u>

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 2: 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.

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*, page D-6).

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>
	\$0.00

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*, page D-5) 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:

1. 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.
2. Losses must be offset in the same order as incurred.
3. 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 (IR 7) 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" (see *Section 4.7.3*, over page), 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 (IR 6) 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:

1. 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 <i>Section 4.8.3</i> , page D-30).

2. The value of meat and produce consumed domestically. (Usually nominal value if grown/raised on the farm.)

3. Income received from any contracting work.

4. Rents received from leasing farm property, including grazing fees.

5. Receipts from the hire of livestock and plant, including stud fees.

6. Insurance proceeds in respect of the loss of crops or stock.

7. Prize money from A & P shows, less entrance fees and other related expenses.

8. Compensation for stock condemned.

9. Refunds from the Income Equalisation scheme. (Capital plus interest.)

10. 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.

11. Income from dealings on the futures market, e.g. wool futures.

12. 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:

1. Legal expenses incurred in arranging finance for the purchase, or lease of income producing assets.
2. Legal expenses incurred in borrowing or renewing loan moneys employed as capital in the production of assessable income.
3. Telephone (excluding personal toll calls).
4. 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.
5. 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.
6. 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.
7. One quarter of total expenditure on the farm dwelling if situated on the farm - e.g. repairs and maintenance, depreciation, domestic power etc.

8. Depreciation - see *Section 4.8.4*, (page D-38).
9. Development Expenditure - see *Section 4.8.5*, (page D-43).
10. Repairs and Maintenance costs on stock yards, sheep dips, fencing and any other income producing assets.
11. Cost of papers and magazines containing farming information.

12. 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, IR 12 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.

13. Cost of transporting employees' children to school. The cost of transporting the farmer's own children is regarded as private and therefore not deductible.
14. Accident Compensation Levy (refer to *Section 4.15.7*, page D-87).

15. "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* (page D-46).
16. Prepaid Expenditure
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* (page D-85), *Accrual Rules for Expenditure*.
17. Protective clothing, e.g. wet weather gear, spray masks etc.

Note: 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* (page D-85), *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 *Section 4.15.4*, page D-67; *Section 4.15.5*, page D-78.)

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:

- Herd Scheme
- Cost - National Standard Cost
 - Self Assessed Cost
- 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*, page D-67 to D-77, for the 1992, 1993 and 1994 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. 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:

$$\begin{aligned} & \text{Cost of sheep surviving from last year} \\ & = (\text{Start nos} - \text{sales and deaths}) \times \text{last year's cost} \\ & = (2000 - 600) \times \$25 \qquad \qquad \qquad \$35,000 \end{aligned}$$

$$\begin{aligned} & \text{Cost of this year's intake} \\ & = 700 \times \$26.29 \qquad \qquad \qquad \underline{18\,403} \\ & \qquad \qquad \qquad \qquad \qquad \qquad \underline{\$53,403} \end{aligned}$$

$$\begin{aligned} \text{Average cost per head} & = \$53,403 \div 2100 \\ & = \$25.43 \text{ per head} \end{aligned}$$

Note: The actual formulae are more complex than these examples show. Farmers should seek professional advice.

Section 4.15.4, page D-67 and page D-71, details the National Standard Costs for 1994 and 1993 respectively. *Section 4.15.5*, pages D-78 to D-84, provides example calculations for the herd scheme and the National Standard Cost scheme.

III. 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.

IV. 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*, page D-94.

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*, page D-94.

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 \$2000.
- (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	\$24 000

$$\begin{aligned}\text{Average value of pool} &= (\$18\,000 + \$24\,000) \div 2 \\ &= \$21\,000\end{aligned}$$

$$\begin{aligned}\text{Depreciation at (say) 22\% DV} &= \$21\,000 \times 22\% \\ &= \$4\,620\end{aligned}$$

$$\begin{aligned}\text{Pool value at end of year} &= \$24\,000 - \$4\,620 \\ &= \underline{\$19\,380}\end{aligned}$$

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

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

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*, pages D-88 to D-93.

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*, pages D-88 to D-93.

Summary of depreciation methods.

<u>Date Used</u>	<u>Type</u>	<u>Rate</u>
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*, pages D-64 to D-66. 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

1. 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.

2. 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.

3. Fruit trees - see *Section 4.9*, page D-48.
4. Forestry activities - see *Section 4.8.7*, next page.

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 1995, a farmer incurs the following expenditure:

New Fencing	\$3000
Shelter Structures	\$5000
Repairs to Access Road	\$1000

The amounts deductible are:

New Fencing -	
Total amount deductible in full	\$3000
Shelter Structures -	
'Depreciation' deduction 12.5% of \$5000	\$625
<i>Diminished value for next year's calculation = \$4375 (\$5000 - \$625)</i>	
Repairs to Access Road -	
Deductible in full as repairs and maintenance	\$1000

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*, page D-43). This requires that development expenditures be capitalised and depreciated at the rates set out in *Section 4.15.3*, pages D-64 to D-66.

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 4.7% pa 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*, page D-27).

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*, page D-38).

Expenditure on land improvements and development is subject to the same rules as for farming (refer *Section 4.8.4*, page D-38 and *Section 4.8.5*, page D-43).

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*, page D-43). The cost of fruit trees and vines which are scrapped may be written-off.

Expenditure on plants and planting for **asparagus** and **berryfruits** (e.g. blackcurrants, raspberries, strawberries, etc.) should be treated as follows:

- Plant life span of 1 to 5 years: costs either written off in year incurred or over the life span of the plants,
- Plant life span of 6 to 20 years: initial costs are not tax deductible, but subsequent replantings are fully deductible in the year of replacement,
- Crop rotation programme: cost of replacement crop and its planting is deductible in the year incurred so long as overall area under cultivation does not increase.

Recurring annual costs until production - where there is a period between establishment and the production of the first crop, the annual recurring expenses would be tax deductible when incurred notwithstanding that they are incurred to earn profits in future years. For example, an orchardist would be entitled to deduct expenditure on cultivation, pruning, spraying, rates, insurance, depreciation, etc. in the year the expenditure is incurred.

Hail Damage - compensation payments received by orchardists for hail damage made to fill a gap in the profits are assessable income in the year received.

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*, page D-46).

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* (page D-27) 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, pages D-65 and D-66. Refer also to Depreciation, *Section 4.8.4*, page D-38.

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*, page D-46)

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).

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.

Some benefits are specifically excluded.

These 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-
 - (i) The difference in price is made up of the discount to the public plus the usual staff discount, and
 - (ii) 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
 - (iii) 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.

1. 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.

$$\begin{array}{r} \text{Value} \\ \text{of} \\ \text{benefit} \end{array} = \frac{\text{No. days available for private use (max 90)}}{90} \times z$$

- "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).
- **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 minus 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.

2. Low Interest Loans

The value of a fringe benefit, provided by way of a low interest loan, is the difference between the current market interest rate (a rate is published each quarter by regulation) and the actual rate charged.

Taxable value of benefit =

Interest calculated on daily balance at the prescribed rate of interest less the interest actually payable by the employee.

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 October 1994 to -	8.40
1 July 1994 to 30 September 1994	7.90
1 January 1994 to 30 June 1994	7.70
1 October 1993 to 31 December 1993	7.80
1 July 1993 to 30 September 1993	8.50
1 October 1992 to 30 June 1993	9.00

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.

3. 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.

4. 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, or
- The services were related to the transportation of passengers or goods to or from New Zealand.
- 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>
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:

1. Calculation of Output Tax :

Sales -		
(Total taxable supplies for the period, including GST.)		\$11000
less		
Zero rated supplies (e.g. direct export sales)		<u>\$2000</u>
		<u>\$9000</u>
GST Content: one ninth		\$1000
Plus Adjustments (e.g. GST on goods used privately)		\$200
<u>Total Output tax</u>		<u>\$1200</u>

2. Calculation of Input Tax:

Purchases/expenses (business related) - Total for which tax invoices are held, including GST	<u>\$5400</u>
GST Content one ninth	\$600
Plus adjustments(e.g. business use of private vehicle)	\$50
<u>Total Input tax</u>	<u>\$650</u>
GST PAYABLE (Output 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.

SECTION 4.15 TAXATION APPENDICES

4.15.1 Tax Payment Dates

Months for Payment of Provisional and Terminal Tax

Month of balance date	<u>Provisional Tax</u>			<u>Terminal tax</u>
	First Instalment	Second Instalment	Third Instalment	
Oct 94	Feb 94	June 94	Oct 94	Sept 95
Nov 94	March 94	July 94	Nov 94	Oct 95
Dec 94	April 94	Aug 94	Dec 94	Nov 95
Jan 95	May 94	Sept 94	Jan 95	Dec 95
Feb 95	June 94	Oct 94	Feb 95	Jan 96
March 95	July 94	Nov 94	March 95	Feb 96
April 95	Aug 94	Dec 94	April 95	Feb 96
May 95	Sept 94	Jan 95	May 95	Feb 96
June 95	Oct 94	Feb 95	June 95	Feb 96
July 95	Nov 94	March 95	July 95	Feb 96
August 95	Dec 94	April 95	Aug 95	Feb 96
Sept 95	Jan 95	May 95	Sept 95	Feb 96

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	\$7410.00 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

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 |
| | or | |
| (b) | The construction and erection of posts, rails, or other structures for the holding of spatting sticks during spat catching and maturing; | 20 |
| | or | |
| (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 1994, 1993 and 1992 income years.

(2) Standard Value does not apply to 1993 or subsequent years.

(3) Herd classes are marked with "" for 1992. All animals are eligible for inclusion in the herd classes for 1993 and subsequent years.*

Values for 1994 Income Year:

National Standard Costs

Kind of Livestock	Category 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
Beef Cattle	Rising 2 year	68.20
	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

4.15.4 continued

National Average Market Values

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	

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

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

4.15.4 continued

Values for 1993 Income Year:

National Standard Costs

Kind of Livestock	Category 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
Beef Cattle	Rising 2 year	58.50
	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

4.15.4 continued

National Average Market Values

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	

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

4.15.4 continued

Values for 1992 Income Year:

Note: Herd classes are marked with "*".

Type and class of Livestock	Average Market Value (Herd Scheme) \$	Standard Value (Trading Scheme) \$	Trigger Price (High Priced Livestock) \$
Sheep			
Ewe hoggets	24.60	14.28	100.00
Ram and wether hoggets	24.60	14.28	100.00
* Two-tooth ewes	34.30	19.51	137.00
* Mixed-aged ewes (rising three-year and four-year old ewes)	21.20	11.88	100.00
* Rising five-year and older ewes	13.00	9.73	100.00
* Mixed-age wethers	14.60	11.50	100.00
* Breeding rams	175.30	103.90	701.00
Beef Cattle			
Beef Breeds and Beef Crosses:			
Rising one-year heifers	307.00	143.50	921.00
* Rising two-year heifers	430.00	212.80	1,290.00
* Mixed-aged cows	406.00	229.37	1,218.00
Rising one-year steers and bulls	389.00	193.67	1,167.00
Rising two-year steers and bulls	551.00	345.57	1,653.00
Rising three-year and older steers and bulls	748.00	419.53	2,244.00
* Breeding bulls	1,927.00	844.33	5,781.00
Dairy Cattle			
Friesian and Related Breeds:			
Rising one-year heifers	276.00	161.23	828.00
* Rising two-year heifers	476.00	301.23	1,428.00
* Mixed-age cows	491.00	286.53	1,473.00
Rising one-year steers and bulls	327.00	145.83	981.00
Rising two-year steers and bulls	464.00	311.97	1,392.00
Rising three-year and older steers and bulls	748.00	419.53	2,244.00
* Breeding bulls	1,053.00	575.17	3,159.00
Jersey and other Dairy Breeds:			
Rising one-year heifers	280.00	145.83	840.00
* Rising two-year heifers	427.00	275.57	1,281.00
* Mixed-age cows	348.00	219.80	1,044.00
Rising one-year steers and bulls	353.00	119.70	1,059.00
Rising two-year and older steers and bulls	537.00	291.90	1,611.00
* Breeding bulls	796.00	401.33	2,388.00

4.15.4 continued

Type and class of Livestock	Average Market Value (Herd Scheme) \$	Standard Value (Trading Scheme) \$	Trigger Price (High Priced Livestock) \$
Deer			
Red Deer:			
Rising one-year hinds	76.00	76.00	228.00
* Rising two-year hinds	159.00	159.00	477.00
* Mixed-age hinds	136.00	136.00	408.00
Rising one-year stags	119.00	119.00	357.00
* Rising two-year and older stags (non-breeding)	216.00	199.50	648.00
* Breeding stags	1,402.00	495.00	4,206.00
Wapiti, Elk, and Related Crossbreeds:			
Rising one-year hinds	73.00	73.00	219.00
* Rising two-year hinds	270.00	270.00	810.00
* Mixed-age hinds	305.00	297.50	915.00
Rising one-year stags	125.00	125.00	375.00
* Rising two-year and older stags (non-breeding)	239.00	232.63	717.00
* Breeding stags	1,529.00	860.00	4,587.00
Other Breeds (Fallow/Sika etc):			
Rising one-year hinds	44.00	44.00	132.00
* Rising two-year hinds	92.00	92.00	276.00
* Mixed-age hinds	94.00	94.00	282.00
Rising one-year stags	37.00	37.00	111.00
* Rising two-year and older stags (non-breeding)	68.00	68.00	204.00
* Breeding stags	350.00	251.30	1,050.00
Goats			
Angora and Angora Crosses (Mohair Producing):			
Rising one-year does	12.00	8.63	100.00
* Mixed-age does	10.00	5.83	100.00
Rising one-year bucks (non- breeding)/wethers	5.00	4.67	100.00
* Bucks (non-breeding)/wethers over one year	7.00	7.00	100.00
* Breeding bucks	100.00	48.00	400.00

4.15.4 continued

Type and class of Livestock	Average Market Value (Herd Scheme) \$	Standard Value (Trading Scheme) \$	Trigger Price (High Priced Livestock) \$
Other Fibre and Meat Producing Goats			
(Cashmere or Cashgora Producing):			
Rising one-year does	8.00	6.07	100.00
* Mixed-age does	6.00	4.67	100.00
Rising one-year bucks (non- breeding)/wethers	3.00	2.33	100.00
* Bucks (non-breeding)/wethers over one year	7.00	4.90	100.00
* Breeding bucks	25.00	25.00	100.00
Milking (Dairy) Goats:			
Rising one-year does	50.00	4.67	200.00
* Does over one year	80.00	9.57	320.00
* Breeding bucks	200.00	69.07	800.00
Other dairy goats	7.00	4.90	100.00
Pigs			
Breeding sows less than one year of age	109.00	73.03	327.00
* Breeding sows over one year of age	187.00	123.67	561.00
* Breeding boars	252.00	165.90	756.00
Weaners less than 10 weeks of age (excluding sucklings)	39.00	26.60	117.00
Growing pigs 10 to 17 weeks of age (porkers/baconers)	106.00	71.87	318.00
Growing pigs over 17 weeks of age (baconers)	172.00	108.03	516.00

4.15.5 Livestock Taxation Examples

Note: Farmers should consult their accountant concerning the valuation options available.

1993-94 Income Year

	<u>Nos.</u>	<u>N.A.M.V.</u> (Herd Scheme)	<u>Std. Value</u> (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 Costs (1994)

Rising 1 year sheep	\$13.30
Rising 2 year sheep	\$7.80

Livestock sold: \$45 000
(2000 lambs, 1100 mixed age ewes)

Livestock purchased: \$6 100 (350 mixed age ewes)

Natural Increase 3000 (survival to sale)
Deaths and missing 165

a) Herd Scheme

Note: All sheep are in the herd scheme.

<u>1994 Opening Tax Values</u>				\$
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.

<u>1994 Closing Tax Values</u>				\$
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 to herd numbers
= \$170,600 - \$167,060
= \$3540

Check

Herd value 30/6/94	\$170,600	
Herd value 30/6/93	\$158,969	(see 1992-93 example)
Total increase in value	= \$11,631	

made up of:

Tax-free increase in herd (\$167,060 - \$158,969)	8,091
Taxable income from increase in livestock	<u>3,540</u>
	<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.

b) 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

<u>1994 Opening Tax Values</u>			\$
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>

<u>1994 Closing Tax Values</u>			\$
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 (see page D-83)	<u>1,277.66</u>
Taxable income from sheep	<u>\$43,851.31</u>

1992-93 Income Year

Livestock on hand:

	<u>Nos.</u>	<u>N.A.M.V.</u> (Herd Scheme)	<u>Std. Value</u> (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	590	\$13.00	\$9.73
Rams	75	\$175.30	\$103.90
30 June 1993			
Ewe hoggets	900	\$40.10	
2th ewes	700	\$47.00	
3 & 4 yr ewes	1400	\$41.60	
5 yr & older	600	\$35.20	
Rams	70	\$151.70	

National Standard Costs (1993)

Rising 1 year sheep	\$13.00
Rising 2 year sheep	\$7.50

Livestock sold: \$40 000
(1900 lambs, 1050 mixed age ewes)

Livestock purchased: \$6 000 (300 mixed age ewes)

Natural Increase 2800 (survival to sale)
Deaths and missing 185

a) Herd Scheme

Note: All sheep are in the herd scheme.

<u>1993 Opening Tax Values</u>				\$
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 = \$873.50
(\$158,969.00 - \$158,095.50)

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 873.50
\$62,519.50

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	<u>\$34,873.50</u>

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.

b) National Standard Costs

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

<u>1993 Opening Tax Values (Trading Scheme)</u>				\$
Ewe hoggets	860	x	\$14.28	12,280.80
2th ewes	760	x	\$19.51	14,827.60
3 & 4yr ewes	1340	x	\$11.88	15,919.20
5 & 6yr ewes	590	x	\$9.73	5,740.70
Rams	75	x	\$103.90	<u>7,792.50</u>
				<u>\$56,560.80</u>

<u>1993 Closing Tax Value (NSC)</u>				\$
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>

This may be spread over 5 years, say, \$1277.66 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:

<u>Expenditure</u>	<u>Limit on Expenditure</u>
Postage and Stationery	No limit
Subscriptions	
* Journals and periodicals	No limit
* Trade and professional associations	No limit in total, but the maximum for any one association is \$6000.
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 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 leviable earnings paid to employees during the year ended 31 March. Levy rates vary according to the industrial activity of the employer.

For example:

(These rates do not include GST)

<u>Industry</u>	<u>Class No.</u>	<u>Levy per \$100</u>	
		<i>1995/96</i>	<i>1994/95</i>
Agriculture	21	\$ 2.66	\$ 2.40
Forestry	22	7.39	6.43
Fishing/fish farming	23	5.95	5.90

An additional 6 cents must be added to the 1994/95 levy to cover costs of the Occupational Safety and Health Service.

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 levy 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	

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	4	5
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

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	<i>S.V.</i>			
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	See Section 4.8.4			
Milking sheds - all types:				
Built before 1 April 1966	6		4	
Built after 1 April 1966	15		10	
Cost of converting to herringbone design after 1 April 1966 -	15		10	
Rotary Herringbone	10	12.5	7	8.5
Motor vehicles, trucks and scooters	20	25	13.5	17.5
Office equipment and machines	20	25	13.5	17.5
Pallets	*			
Pig houses - all types	15		10	
Pipelines	<i>maintenance</i>			

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
Spray type				
- Shed	<i>Appropriate Building rate</i>			

4.15.8 continued

	DV	DV+	SL	SL+
- Base (race, floor of dip, two draining pens and sump)				
- tanks and pipes, dip including pumps, electric motor and fittings				
	<i>Dev.expenditure</i>			
	10	12.5	7	8.5
Silage storage bunkers				
	<i>Development expenditure and maintenance</i>			
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				
	<i>Cost of replacement or scrapping if abandoned</i>			
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				
	<i>See Section 4.8.4</i>			
Traction engines	10	12.5	7	8.5
Tractors	20	25	13.5	17.5
Trailers				
	<i>Rate applicable to vehicle by which drawn</i>			
Trickle irrigation equipment in glasshouses	25	31.3	17.5	22
Trucks - see motor trucks				
Tunnel houses P.V.C.	11		7.5	
Underground silage pits - concrete walled with sliding roof	10	12.5	7	8.5

4.15.8 continued

	DV	DV+	SL	SL+
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	17.5
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 Equip 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
Irrigators (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
Shellfish nets	4	40	30

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
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	15.5	12	8
Dryers	15.5	12	8
Effluent plant (excluding SS tanks and screens)	12.5	15	10
Electrodialysis plant (whey)	12.5	15	10
Evaporators (MVR type)	15.5	12	8

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equip Depn Rate (%)
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

Fishing

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 Equip 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

Industry 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	2	1.5
Driveways	50	4	3
Dykes (of earth construction)	50	4	3
Fences	20	9.5	6.5
Fertiliser works	33.3	6	4
Floating piers	33.3	6	4
Fowl houses	20	9.5	6.5
Hot houses (of glass or other construction excluding PVC)	20	9.5	6.5
Hot houses (of PVC or similar construction)	12.5	15	10
Lamp posts (excluding wooden)	25	7.5	5.5
Lamp posts (wooden)	20	9.5	6.5
Manholes	50	4	3
Pig houses	20	9.5	6.5
Reservoirs (above ground, concrete)	50	4	3
Reservoirs (for water, other than concrete or lined earth)	33.3	6	4
Reservoirs (in-ground, concrete)	100	2	1.5
Reservoirs (lined earth)	50	4	3
Retaining walls (concrete)	100	2	1.5
Retaining walls (wooden)	25	7.5	5.5
Roadways	50	4	3
Saleyards	33.3	6	4
Shade houses (of glass or other construction excluding PVC)	20	9.5	6.5

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv 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
Traction engines	25	7.5	5.5
Tractors (farm type)	15.5	12	8

Section 4.15.9 continued

Industry Categories	Estimated Useful Life (Years)	DV Depn Rate (%)	SL Equiv Depn Rate (%)
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).

The value of this gift is \$62,421.60, calculated as $\$4000 \times \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
	- Shares	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 1993.

Gift to B of \$15,000 made on 31 July 1994.

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 1994, 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 1993 - duty of \$150 paid.

Gift to D of \$15,000 made on 1 January 1994.

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 1993 of \$22,000

Gift made to E on 18 November 1993 of \$22,000

Gift made to F on 31 October 1994 of \$35,000

Duty assessment is as follows:

14 August 1993

Gift duty payable on gift of \$22,000 to D is zero.

18 November 1993

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:

Gift to D:	$\frac{22,000}{44,000}$	x	1250 =	\$625.00
Gift to E	$\frac{22,000}{44,000}$	x	1250 =	\$625.00

31 October 1994

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:

Gift to E:	$\frac{22,000}{57,000}$	x	2850 =	\$ 1100.00
less duty already paid				\$ <u>625.00</u>
DUTY PAYABLE				\$ 475.00
Gift to F:	$\frac{35,000}{57,000}$	x	2850 =	\$ 1750.00

Total gift duty payable is:-

Gift to D	\$ 625
Gift to E (625 + 475)	\$1100
Gift to F	\$1750
	<u>\$3475</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	
		Nil
\$1 - \$27,000		
\$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 per Annum	Present Value of \$1 Payable on Death	Present Value of Income on Capital of \$1 for Life
	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 per Annum	Present Value of \$1 Payable on Death	Present Value of Income on Capital of \$1 for Life
	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
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

Table B continued

	Years	\$	\$	\$
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 Up to 20	Years	\$	\$	\$
	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

Table C continued

Years	Years	\$	\$	\$
50	22.0	13.16300	0.34185	0.65815
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
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
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

Table D continued

	\$	\$	\$
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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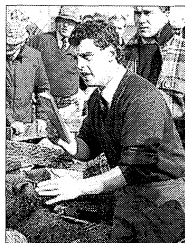
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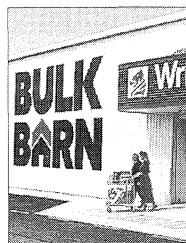
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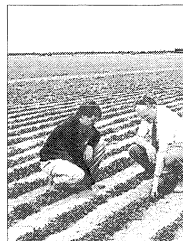
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