

# FINANCIAL BUDGET MANUAL

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Farm Management  
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**Lincoln**  
*University*

# **FINANCIAL BUDGET MANUAL 1990**

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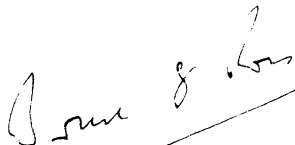
**Foreword by the Vice-Chancellor of Lincoln University, Professor Bruce Ross:**

It is with much pleasure that I write the foreword for the 1990 edition of the Financial Budget Manual - the first to be launched under Lincoln's new name - LINCOLN UNIVERSITY.

Although our institution's name has changed, I would like to give an assurance that our deep commitment to the agricultural and horticultural industries of New Zealand has not. The on-going production of the Financial Budget Manual helps to demonstrate, we hope, our keen interest in the "grass roots" side of farming.

Over its twenty-odd years of publication, the Manual has proved to be an invaluable reference book for professionals in primary industry. Produced by a small but enthusiastic team from our Farm Management Department, the Manual has become one of Lincoln's most popular publications - and, to the best of my knowledge, is the only text of its type currently available in New Zealand.

I congratulate the authors and the co-editors on their efforts, secure in the knowledge that this edition of the Manual will be at least as useful to readers and users as were the earlier editions.

  
\_\_\_\_\_  
Bruce Ross

## PREFACE

The "Financial Budget Manual 1990" 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, income taxation, and estate and gift duties.

The data contained in the manual is that ruling on or about 1 January 1990. Prices do not remain stationary so the Manual should be used as a guide only. Inflation, market movements and exchange rate changes, are just a few 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 provided by traders in centres throughout New Zealand, but some variation may occur between alternative suppliers and other areas. 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.

All prices are quoted exclusive of GST.

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 Gary Walton for his efforts in gathering and collating information, and preparation of the manuscript.

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 there in.

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

For readers' information, Lincoln also produces a companion volume - the "Farm Management Technical Manual". Last produced in 1986, this Manual is being completely revised for publication late in 1990.

E.S. Burt, P.H.Fleming  
EDITORS February 1990

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**SECTION 1**

**FARM REVENUE**



## 1.1 MARKET PRICES

### 1.1.1 Agricultural Market Index

This index represents trends in market prices measured against a base of 1000, being the average market price for each product group in 1980.

Product Group	1980 (Base)	Average for 1987/88 season	Now (August 1989)	Future (August 1990)
Dairy	1000	2704	3309 (1327)*	3313
Bull beef	1000	1346	1656 (626)	1617
Wool	1000	1946	1772 (644)	1772
Lamb <sup>1</sup>	1000	1400	1677 (633)	1879
Mutton	1000	1064	1330 (502)	1409
Kiwifruit	1000	1156	1117 (390)	1063
Apples	1000	2110	2319 (856)	2214
Wheat	1000	1606	1655 (613)	1494
Barley	1000	1325	1415 (524)	1246
Venison	1000	1829	1968 (694)	2065
Live sheep	1000	1011	1066 (395)	1127
Lamb skins	1000	2218	2442 (866)	2560

\* Figures in brackets indicate "real" prices i.e. adjusted for inflation since 1980

1. Exclusive of skin

Products for season ending:

March           Kiwifruit

June            Dairy, wool, venison, barley, wheat and live sheep

September     Bull beef, lamb, mutton, lamb skins and apples

Interpretation: Example - Lamb

The index illustrates that current market prices for lamb (1677) are up by 20% on the average for the 1987/88 season (1400). After adjusting for inflation, however, the current lamb price, now indexed at 663, is still well below that of 1980, indexed at 1000. In 12 months time, prices are expected to be higher than they are now, with a rise of 202 points, or 12% predicted.

**Assumptions:**

- \* Index calculated from a basket of products, markets and currencies, against the 1980 base of 1000.
- \* Index measures export prices in \$NZ at FOB (except wool, being auction price).
- \* Exchange rates September 1990: \$NZ 1 = \$US 0.6, Yen 80, £0.35.

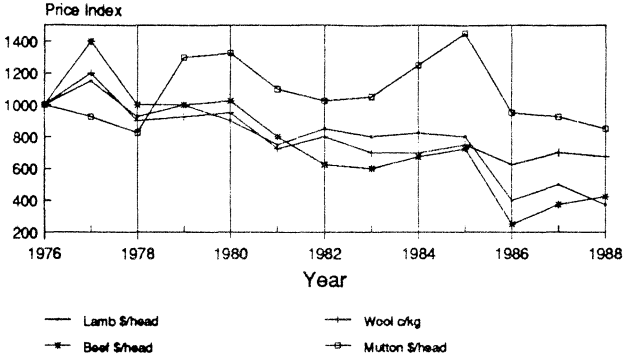
**Notes:**

- |                  |  |
|------------------|--|
| <b>Dairy</b>     | Following steady and substantial price increases in world dairy markets through 1988, prices have stabilised.  |
| <b>Mutton</b>    | Price improvements are largely due to the increasing prices of beef and other competing meats.   |
| <b>Wool</b>      | Uncertainty regarding the Chinese market has led to lower price expectations.  |
| <b>Bull beef</b> | An assumed weaker US exchange rate (compared with mid 1989) and increasing competition from poultry may offset positive effects of lower beef supplies in the US (including imports) over the next year. |
| <b>Apples</b>    | Prices are firmer this season as a result of lower N.Z. supplies and absence of import quotas in the EC.   |
| <b>Wheat</b>     | Levels of world grain production and stocks are expected to increase.  |

Source: New Zealand Farmer September 1989

### 1.1.2 Real Farm Gate Prices 1976 - 1988

(base year 1976 = 1000)



Source: N.Z. Meat and Wool Board's Economic Service

## 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. Four main factors influence the prices offered:

- Changes in meat prices due to supply and demand on overseas markets, especially Smithfield
- Changes in prices for by-products
- Changes in killing charges
- Availability of slaughter stock

Below is an example of net prices offered for export lambs for the week beginning December 4 1989. This type of information is usually available each week in various newspapers and farming journals.

Weight	Grade	Richmond	Fortex	PPCS/CFM	Alliance	Waitaki
		\$	\$	\$	\$	\$
6.5	B		18.85	18.85		
7.5	B		20.30	20.30		
8.0	A	10.01	17.32	17.89	18.34	16.47
9.0	A	10.37	19.32	19.45	20.32	18.11
9.5	YL	18.59	20.17	20.32	20.40	21.36
9.5	PL	19.25	19.22	21.46	20.70	20.40
11.0	YL	19.61	23.02	22.68	23.87	22.94
11.0	PL	20.38	21.92	24.00	23.10	22.94
11.0	TL	10.78	7.95	5.96	11.08	9.26
13.0	YL	20.97	27.73	25.82	28.21	26.32
13.0	PL	21.88	26.82	27.38	27.30	26.32
13.5	YM	34.92	31.41	31.92	33.11	31.48
13.5	PM	35.18	31.14	31.79	32.57	31.48
15.0	YM	37.23	34.67	34.76	35.90	34.50
15.0	PM	37.53	34.57	34.61	35.30	34.50
15.0	TM	21.73	17.57	13.81	14.20	14.00
15.0	FM	19.48	18.32	9.46	11.50	11.30
17.0	YM/FP2	40.31	39.18	38.54	39.62	38.52
17.0	PM	40.65	39.18	38.37	38.94	38.52
17.5	YX/FP2	44.05	40.27	41.16	36.42	40.52
17.5	PX	44.05	40.27	41.16	35.72	40.52
19.0	YX	46.62	43.54	44.01	38.89	43.54

Weight	Grade	Richmond	Fortex	PPCS/CFM	Alliance	Waitaki
		\$	\$	\$	\$	\$
19.0	PX	46.62	43.54	44.01	38.23	43.54
19.0	TH	27.33	43.54	17.42	17.32	18.64
19.0	FH	23.72	19.79	12.67	13.90	14.84
19.0	HVY		43.54	44.20	38.99	
21.0	YX	50.04	48.53	47.81	42.41	47.56
21.0	PX	50.04	48.53	47.81	41.57	47.56
21.0	HVY		48.53	48.02		47.56
21.5	YX	50.89	49.63	48.76	43.26	49.06
21.5	PH	51.11	49.63	49.19	37.67	44.76
21.5	HVY		49.63	48.97		49.06
23.0	YX,HVY	53.46	52.95	51.84	45.83	52.08
25.0	YX,HVY	56.88	57.37	55.66	49.25	56.10
25.0	TH	32.13	57.37	22.16	22.00	24.60
25.0	FH	27.38	25.37	15.31	17.50	19.60
27.0	YX,HVY	60.30	61.79	59.48	52.67	56.12
30.0	YX,HVY	65.43	68.42	65.21	57.80	62.15
Average Premium		3.71	0.00	5.50	3.57	4.00
Pelt 1.0kg woolly		10.11	9.95	10.00	12.29	9.22

**Note:** 1. The net lamb values shown above in dollars are calculated after deducting all killing charges and levies. Farm to works transport is not included.

The premiums stated have been added in.

2. The value of 1.0 kg wool pull/pelt is included and is shown for each company. Currently the net per head lamb values are based on a 1kg woolly pelt. By about the end of February the basis is changed to 0.5kg shorn and by the end of May back to 1kg shorn.

Source: The N.Z. Farmer December 6 1989

For Forward Contract lamb prices (AFFCo.) - see Section 1.2.7

### 1.2.2 Lamb Price Forecast (Export)

(i) The average lamb price is expected to be \$30 per head for the 1989/90 season according to the Chairman of the Meat Board.

Source: New Zealand Farmer, August 1989



- (ii) Prices received by farmers over the next five years are predicted to rise by 7.5% annually (from May 1989).

Source: New Zealand Meat and Wool Board's Economic Service

### 1.2.3 Lamb Price Trends (Export)

- (i) Table of average prices paid for lambs weighing 14.3 kg

Year-	1986/87	1987/88	1988/89 (E)	1989/90 (F)
14.3 kg lamb (\$/hd)-	\$23.72	\$18.20	\$20.50	\$25.00
This price comprises:				
Baremeat schedule (c/kg)-	83.50c	57.90c	95.00c	122.00c
Pelt & wool (\$/hd)-	\$11.79	\$9.81	\$7.00	\$7.50

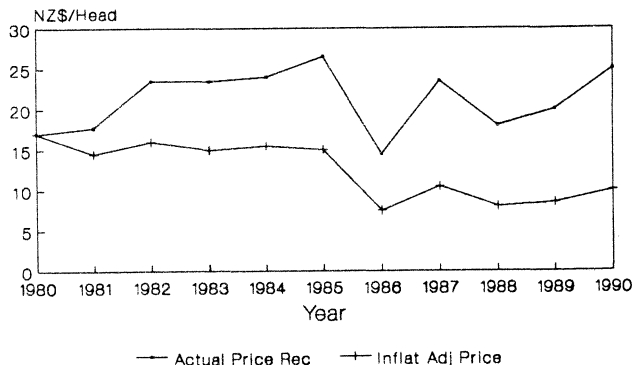
Figures may not add due to rounding

E = Estimate , F = Forecast

Prices are at works, for year ended 30 September.

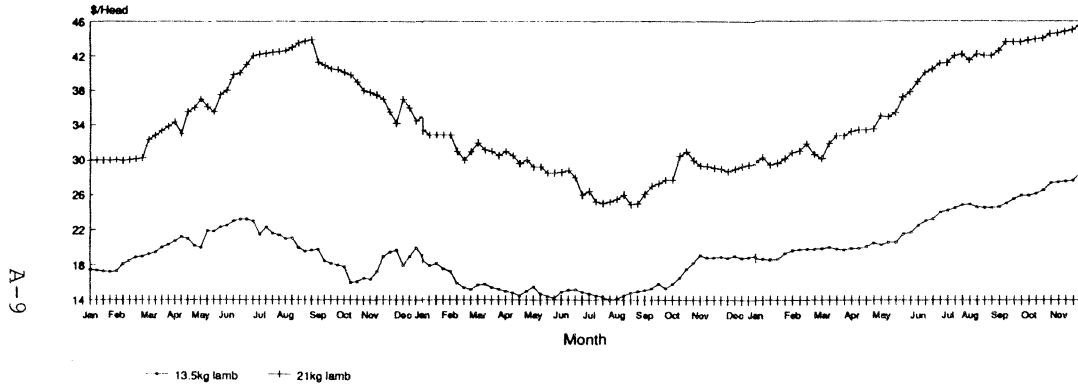
Source: M.A.F., Department of Statistics, Meat Producer's Board, N.Z. Meat and Wool Board's Economic Service, (April 1989)

- (ii) Graph of Actual and Inflation Adjusted Lamb Prices 1980 to 1990  
(All grades average lamb - \$ per head)



Source: N.Z.Meat and Wool Board's Economic Service, M.A.F. (April 1989)

- (iii) Graph of the average net price paid for lambs weighing 13.5 kg and 21 kg with a 1kg woolly pelt (January 1987 to October 1989).



Source: N.Z Farmer December 9 1987, November 2 1988, November 22, 1989

#### **1.2.4 Skin Price Forecast (Lamb and Sheep)**

- (i) Taking into account projected exchange rate and other factors, returns from pelt and slippe wool should remain in the \$7 to \$10 range in 1989/90.

Source: "Situation and Outlook for New Zealand Agriculture"  
M.A.F.Corp, April 1989

- (ii) It is predicted that lamb skin prices will increase by 4% per year over the next five years (from May 1989). This takes into account projected inflation and exchange rate factors.

Source: N.Z.Meat and Wool Board's Economic Service.

#### **1.2.5 Beta Lamb Price (1989)**

Fortex and PPCS announced contracts of \$2.90 per kg in Canterbury (Fortex price includes a \$1 per head premium for lambs of up to 7 kg delivered August).

Source: The N.Z. Farmer August 1989.

#### **1.2.6 Live Export Lambs**

- (i) Elders/P.G.G. Live sheep Haj Contract 1989/90 prices:  
North Island \$30.50 Male lambs (minimum liveweight 30 kg).  
South Island \$29.00 for liveweight 30 to 33 kg.  
\$32.00 for lambs over 33 kg.  
Source: N.Z. Farmer September 1989
- (ii) Challenge Livestock are offering \$33 for a 32 kg minimum lamb for the live trade to Saudi Arabia (Haj).  
Source: N.Z.Farmer December 20 1989
- (iii) Past prices offered to farmers for Haj contracts:
- |         |                                      |
|---------|--------------------------------------|
| 1986/87 | \$27.00 per head                     |
| 1987/88 | \$23.50 per head                     |
| 1988/89 | \$20.00 to \$24.00 (approx) per head |

Source: "Situation and Outlook for New Zealand Agriculture"  
M.A.F.Corp April 1989

### 1.2.7 Forward Contract Lamb Prices

In December 1989 AFFCo. announced the following contract prices for YL, PM, YX, PX, and PH grade lambs supplied in January, February and March 1990:

14 kg	\$28.00
15 kg	\$30.00
16 kg	\$32.00
17 kg	\$34.00
18 kg	\$36.00
19 kg	\$40.00
20 kg	\$42.00

These prices are "farm gate" prices and all lambs must have a minimum wool pull of 400 g.

Source: Straight Furrow, December 6 1989

### 1.2.8 Mutton Schedule (Export)

Below is an example of net prices offered to farmers for the various mutton grades for the week beginning December 4 1989. This information is usually available weekly in various newspapers and farming journals.

Weight	Grade	Richmond Fortex		PPCS/ CFM	Alliance	Waitaki S
		\$	\$	\$	\$	\$
15.0	MM	13.80	8.81	7.99	7.87	7.99
17.0	MM	13.80	10.17	9.45	9.53	9.41
17.0	MX1	18.05	11.87	14.47	13.10	13.83
19.0	MM	13.80	11.53	10.91	11.19	10.83
19.0	MX1	18.55	13.43	16.05	15.18	15.77
19.0	ML1	18.55	14.38	16.05	15.18	15.39
19.0	MP	7.75	3.93	2.74	4.92	2.85
21.0	MX1	19.05	14.99	17.63	17.26	17.71
21.0	ML1	19.05	16.04	17.63	17.26	17.29
23.0	MX1	19.55	16.55	19.21	19.34	19.65
23.0	ML1	19.55	17.70	19.21	19.34	19.19
23.5	MX2	23.43	18.58	20.54	19.86	20.84
23.5	ML2	22.26	16.94	19.37	18.92	19.66
23.5	MH	14.97	12.24	14.20	13.98	14.02
23.5	MP	7.97	5.19	4.09	7.17	4.15
25.0	ML2	22.80	18.11	20.54	20.42	21.09

Weight	Grade	Richmond Fortex		PPCS/ CFM	Alliance	Waitaki S
		\$	\$	\$	\$	\$
27.0	ML2	23.52	19.67	22.10	22.42	22.99
27.0	MH	15.15	14.27	16.16	16.75	16.51
27.0	MF	15.15	7.52	7.03	7.84	7.06
27.0	MP	8.15	6.17	5.14	8.92	5.17
30.0	ML2	24.60	22.01	24.44	25.42	25.84
Pelt	0.3 shorn	7.98	7.20	6.85	7.09	6.87

**Notes:** The net mutton values are calculated on the same basis as for lamb (refer Section 1.2.1). The value of a 0.3 kg pelt is included.

Source: N.Z. Farmer December 6 1989

**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.

### **1.2.9 Mutton Price Forecast (Export)**

(i) The Chairman of the Meat Board expects the 1989/90 average price for mutton carcasses to reach \$18.

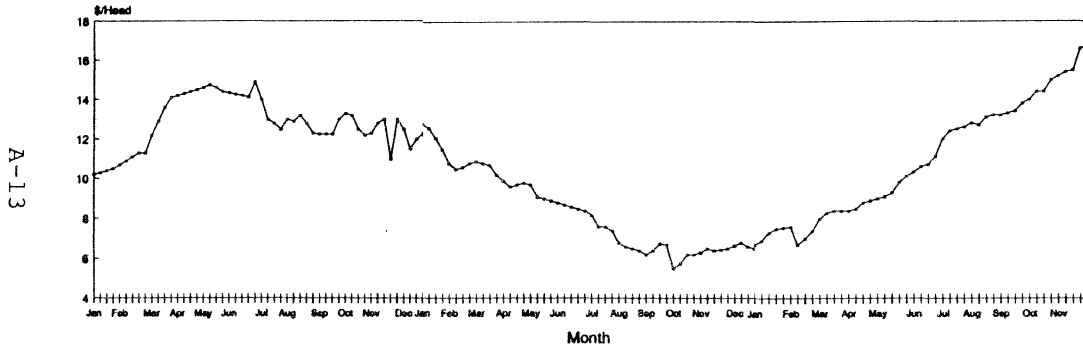
Source: "Press" August 1989

(ii) Mutton prices are predicted to increase 4% per year over the next five years (from May 1989). This takes into account projected inflation and exchange rate factors.

Source: New Zealand Meat and Wool Board's Economic Service

### 1.2.10 Mutton Price Trends (Export)

(i) Graph of the net value of a 21kg ewe with a 0.3kg pelt (January 1987 to October 1989)



Source: N.Z.Farmer December 9 1987, November 2 1988, November 22 1989

(ii) Table of average prices paid for 18 kg mutton; and mutton all grades average.

Year -	1986/87	1987/88	1988/89 (E)
MX1 Mutton (18 kg)-	\$9.82	\$13.18	\$8.70
This price comprises:			
Baremeat schedule-	5.00c	10.40c	4.00c
Pelt & wool-	\$8.92	\$11.27	\$8.00
Mutton all grades average-	\$8.82	\$12.16	\$7.90

Figures may not add due to rounding

E = Estimate

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 Board's Economic Service, (April 1989)

### 1.2.11 Sheep Prices - Prime Stock (Local Sales)

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.

As a guide the following average prices were paid for prime stock during 1989:

	<u>Papakura</u>	<u>Feilding</u>	<u>Addington</u>	<u>Burnside</u>
<b>Dec/Jan</b>				
Lambs	\$12-\$23	\$13-\$20	\$13-\$26	\$ 8-\$26
Ewes	\$ 4-\$11	\$ 1-\$10	\$ 1-\$10	\$ 4-\$16
Hoggets	\$11-\$19	\$ 7-\$20	\$11-\$23	\$17-\$26
<b>Feb/Mar</b>				
Lambs	\$ 3-\$27	\$ 9-\$28	\$10-\$30	\$ 8-\$30
Ewes	\$ 4-\$25	\$ 3-\$19	\$ 4-\$14	\$ 3-\$18
Hoggets	\$13-\$22	\$ 8-\$26	\$10-\$24	\$16-\$28
<b>April/May</b>				
Lambs	\$14-\$29	\$ 9-\$28	\$10-\$32	\$13-\$25
Ewes	\$ 2-\$14	\$13-\$21	\$ 4-\$17	\$ 2-\$19
Hoggets	\$13-\$25	\$ 3-\$18	\$ 9-\$22	\$13-\$30
<b>June/July</b>				
Lambs	\$14-\$38	\$13-\$43	\$17-\$40	\$16-\$42
Ewes	\$ 1-\$17	\$ 5-\$31	\$ 7-\$22	\$ 3-\$25
Hoggets	\$13-\$26	\$ 5-\$31	\$10-\$25	\$12-\$38
<b>Aug/Sept</b>				
Lambs	\$15-\$39	\$15-\$43	\$22-\$45	\$17-\$45
Ewes	\$ 4-\$29	\$ 7-\$37	\$10-\$31	\$ 6-\$34
Hoggets	\$17-\$37	\$17-\$50	\$15-\$34	\$17-\$50
<b>Oct/Nov</b>				
Lambs	\$18-\$40	\$21-\$49	\$26-\$42	\$21-\$44
Ewes	\$ 8-\$27	\$13-\$32	\$11-\$24	\$10-\$40
Hoggets	\$19-\$35	\$22-\$40	\$15-\$40	\$18-\$47

Source: N.Z.Farmer 1989 Issues



### **1.2.12 Sheep Prices - Store and Breeding Stock**

Store and breeding sheep prices may vary markedly between districts, seasons and breeds. The following tables are a guide to the average prices paid for store and breeding crossbred ewes, ewe hoggets and mixed sex lambs throughout the country in 1989 (summarised from the livestock pages in the N.Z. Farmer).

	<u>Papakura</u>	<u>Feilding</u>	<u>Addington</u>	<u>Burnside</u>
<b>Dec/Jan:</b>				
M.S.lambs	\$ 6-\$11	\$ 4-\$15	\$ 3-\$13	\$ 4-\$13
Ewes	\$ 7-\$11	\$ 2-\$22	\$ 4-\$ 7	\$ 3-\$ 7
Hoggets	-	\$14-\$30	-	\$ 9-\$13
<b>Feb/Mar:</b>				
M.S.lambs	\$ 4-\$16	\$ 6-\$27	\$ 7-\$20	\$ 2-\$17
Ewes	\$ 7-\$16	\$ 6-\$22	\$ 4-\$18	\$ 4-\$ 6
Hoggets	to \$17	\$12-\$36	\$12-\$22	\$12-\$15
<b>April/May:</b>				
M.S.lambs	\$ 4-\$16	\$ 6-\$27	\$ 7-\$20	\$ 2-\$17
Ewes	to \$12	\$12-\$36	\$12-\$22	\$12-\$15
Hoggets	-	\$ 9-\$23	-	\$ 8-\$12
<b>June/July:</b>				
M.S.lambs	\$ 6-\$16	\$ 9-\$40	\$ 6-\$24	\$ 6-\$20
Ewes	\$ 8-\$16	\$ 9-\$27	\$ 5-\$33	\$ 9-\$28
Hoggets	-	\$ 8-\$32	\$13-\$28	\$10-\$23
<b>Aug/Sept:</b>				
M.S.lambs	\$ 8-\$19	\$12-\$49	\$10-\$13	\$ 7-\$21
Ewes	\$ 8-\$19	\$16-\$32	\$ 9-\$36	\$ 8-\$28
Hoggets	-	\$17-\$34	\$13-\$27	\$16-\$23
<b>Oct/Nov:</b>				
M.S.lambs	\$ 7-\$22	\$20-\$47	\$14-\$29	\$14-\$30
Ewes	-	\$10-\$29	\$13-\$22	\$15-\$16
Hoggets	-	\$16-\$39	\$20-\$36	\$16-\$28

### 1.3 WOOL

#### 1.3.1 Wool Board's Minimum Price 1989/90

See page A-19.

#### 1.3.2 1989 Highest and Lowest Prices (to November 1989)

(Clean Market Price - cents per kg)

Description and Micron/Category	High	Low
	(cents per kg)	(cents per kg)
<b>Merino</b>		
18 Fleece	4350	3000
19 Fleece	2415	2181
21 Fleece	1455	1390
23 Fleece	1180	1125
21 Pieces	1145	1058
21 Bellies	1095	1010
<b>Halfbred &amp; Corriedale</b>		
25 Fleece	950	880
27 Fleece.	866	798
29 Fleece	815	744
31 Fleece	718	676
28 Pieces	732	714
28 Bellies	720	659
28 Lox	508	462
26 Lambs	-	-
28 Crutchings	556	507
<b>Crossbred</b>		
33 Fleece	640	606
35 Fleece	658	613
35 Fleece	619	596
37 Fleece	655	604
37 Fleece	653	593
40 Fleece	665	581
37 Cott	568	568
35 Pieces	581	532
35 Bellies	565	522
35 Lox	491	396
37 Crutchings	587	503

<b>Description and Micron/Category Second Shear</b>	<b>High (cents per kg)</b>	<b>Low (cents per kg)</b>
37 Fleece)	663	593
37 Fleece)	640	583
37 Fleece)      Prices differ	622	582
37 Fleece)      with	629	576
37 Fleece)      staple length.	634	578
37 Fleece)	615	570
37 Fleece)	620	563
37 Fleece)	600	548
35 Bellies & Pcs	558	461

Source: New Zealand Farmer 6 December 1989

### **1.3.3 Wool Price Forecast**

Prices received by farmers over the next five years are predicted to rise by 5.0% annually (from May 1989). This takes into account projected inflation and exchange rate factors.

Source: New Zealand Meat and Wool Board's Economic Service

**Wool Board's Minimum Price 1989/90**

The New Zealand Wool Board's average minimum price for 1989/90 has been increased from the 1988/89 level of 500 cents per kilo clean (372 cents greasy) to 525 cent per kilo clean (391 cents greasy).

A-19

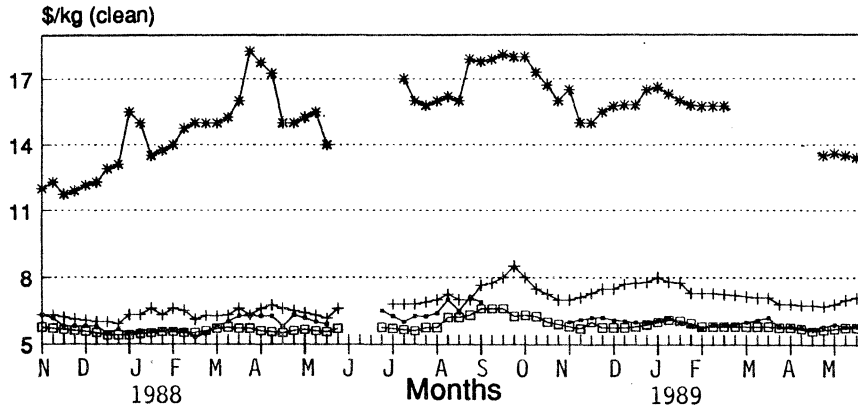
Category	Micron	Style	Description	Average Staple Length	Board Type	1989/90 Clean Cents/kg
Merino	22	Good	Fleece	80	22F2W	1092
Halfbred	26	Good	Fleece	90	26F2W	699
	28	Good	Fleece	95	28F2W	639
	30	Good	Fleece	105	30F2W	601
Crossbred	33	Good	Fleece	125	33F2D	578
	35	Good	Fleece	125	35F2D	563
	37	Good	Fleece	125	37F2D	546
	37	Average	Fleece	125	37F4F	502
	37	Ave/Poor	Soft Cott	125	37G3F	470
	37	Good	Second Shear	85	37F2J	527
	37	Good/Ave	Second Shear	65	37F30	486
	30	Average	First Lambs	65	30L20	526
Merino	21	Average	Pieces	60	21P2X	947
Halfbred	28	Average	Pieces	75	28P2X	556
Crossbred	35	Ave/Poor	Pieces	100	35PG3	480
	35	Ave/Poor	2nd Shear, bellies, pcs	75	35C3L	436
	35	Average	2nd shear, bellies, pcs	65	35C40	378
	35	Ave/Poor	2nd pieces & Locks	50	35S3P	319
	37	Ave/Poor	First crutchings	65	37K30	413

### 1.3.4 Wool Price Trends

#### (i) Price Indicators 1988-89

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

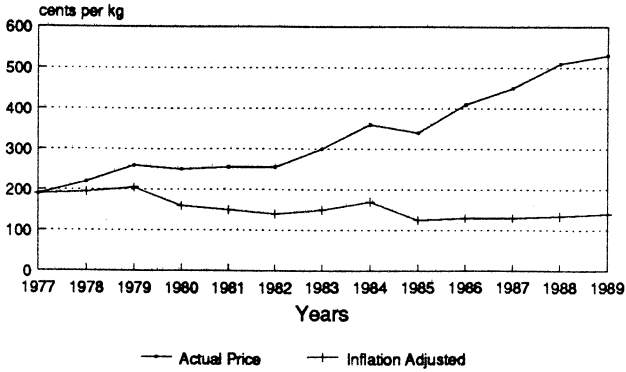
- Fine = 18 to 24 micron
- Medium = 25 to 31 micron
- Coarse = 32 to 41 micron



- \* Fine
- + Medium
- Coarse
- Lams

Source N.Z.Farmer 1988/89 Issues

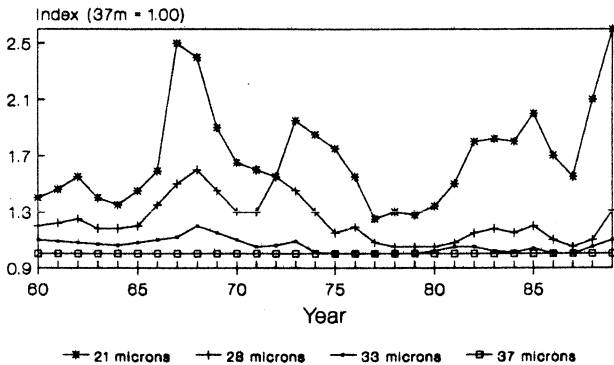
(ii) Graph of actual and inflation adjusted greasy wool price (average auction price)



Source: New Zealand Wool Board

**1.3.5 Wool Price Ratios 1960 to 1989**

Comparison of the prices received for 21,28, and 33 micron fleece with the prices received for 37 micron wool (base)



Source: New Zealand Farmer July 1989

## 1.4 CATTLE

### 1.4.1 Beef Schedule (Export)

The beef schedule works in the same way as does the sheep meat schedule (refer to Section 1.2.1)

Below is an example of net prices offered for the week beginning December 4 1989. This information is usually available weekly in various newspapers and farming journals.

<b>Grade</b>	<b>CW (kg)</b>	<b>Approx Liveweight (kg)</b>	<b>Richmond \$/head</b>	<b>PPCS/CFM \$/head</b>	<b>Waitaki S \$/head</b>
P2 Steer	210	400	592	547	549
	230	435	661	651	642
	260	480	774	773	735
	280	510	873	837	808
	310	560	996	930	892
	330	590	1099	994	966
	360	630	1205	1097	1061
K2 Steer	210	395	589	547	549
	230	430	658	651	642
	260	475	770	773	735
	280	505	861	837	808
	310	555	991	930	892
	330	585	1094	994	966
	360	625	1200	1097	1061
G2 Steer	210	355	573	530	517
	230	395	641	623	610
	260	430	750	739	699
	280	475	848	798	766
	310	505	968	893	849
	330	585	1069	961	920
	360	625	1173	1057	1010
P2 Heifer	180	355	493	476	465
	210	395	592	547	549
	230	430	662	651	642
	260	475	774	773	735
	280	505	859	837	808

Grade	CW	Approx Liveweight (kg)	Richmond \$/head	Waitaki N \$/head	Waitaki S \$/head
M Cow	140	325	351	316	304
	160	355	436	390	374
	180	385	500	451	466
	210	435	595	531	542
	230	465	662	610	592
Bull	180	365	521	481	483
	210	415	646	502	591
	230	445	727	686	695
	260	490	833	792	790
	280	520	910	865	867
	310	570	1018	963	963
	330	600	1101	1040	1039
	360	640	1223	1153	1151

- Notes:**
1. The above values are on a net basis. Only transport needs to be deducted.
  2. The approximate liveweights should be used as a guide only. They are based on 3 hours off feed and water, but do vary by season. English breeds for steer and heifer, Friesian for the cow and bull.

Source: N.Z. Farmer December 4 1989 (Agri-fax)

#### 1.4.2 Beef Price Forecast (Export)

- (i) The Meat Board expects that the all grades average payment for beef will increase from last season's figure of \$552 per head (229 cents per kg) to \$647 per head (264 cents per kg).

Source: "The Press" August 1989

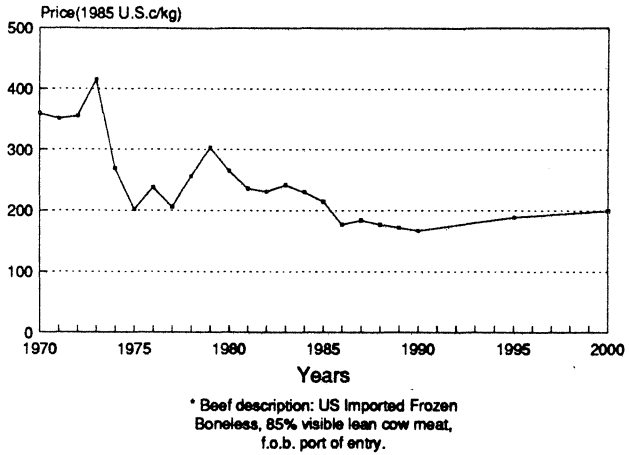
- (ii) Prices received by farmers over the next five years are predicted to rise by 8.4% annually (from May 1989). This takes into account projected inflation and exchange rate factors.

Source: New Zealand Meat and Wool Board's Economic Service



### 1.4.3 Beef Price - World Trends

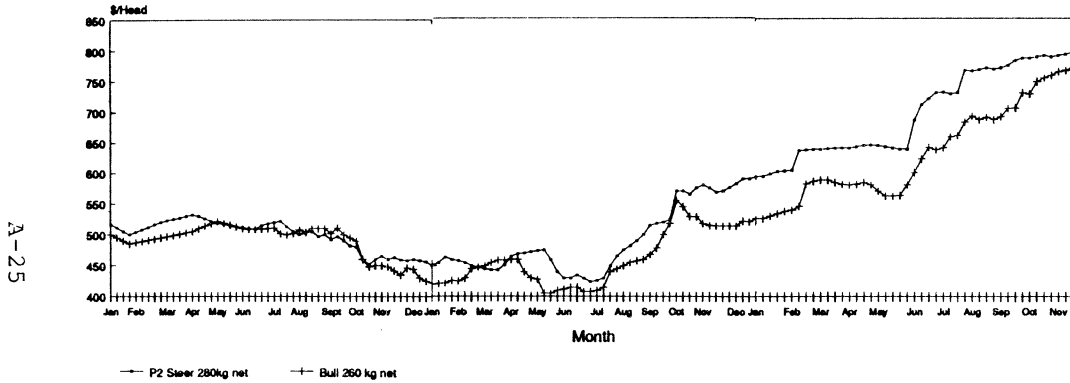
The graph shows average World beef prices \* for 1970-1987 and forecasts for 1988-2000. The prices are in inflation adjusted U.S. cents per kilogram, based on the value of the \$US in 1985. That is, the forecast values are reported after future inflation has been removed. The forecast prices represent averages only.



Source: Lincoln College

### 1.4.4 Beef Price Trends (Export)

(i) Graph of the net price paid for beef (280 kg steer and 260 kg bull) January 1987 to October 1989



Source: N.Z.Farmer, 9 December 1987, 2 November 1988, 22 November 1989.

(ii) Cow Beef

Year	1986/87	1987/88	1988/89 (E)
Cow M Grade (145-170 kg)-	162c	146c	180c
Cow M Grade (average per head)- E = Estimate	\$256	\$231	\$284

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 Board's Economic Service, (April 1989)

**1.4.5 Dairy Calf/Bull Beef Contracts**

**Riverlands Foods**

Farmers entering bull beef contracts with Riverlands Foods will get up to \$120 per calf to pass on to the rearer (dairy farmer) to cover the cost of rearing the calf to weaning.

Riverlands will also make a further advance to help the farmer purchase the calf when weaned.

Source: N.Z.Farmer July 1989

**AFFCo.**

AFFCo. offered \$250 for quality Fresian or exotic bull calves weighing 100kg at December 15th or earlier (at farm gate).

Good quality 90 to 100 kg bull calves would be accepted from October 16th at \$2.50 per kg live weight.

Source: N.Z.Farmer May 1989

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

Average prices at the 3 main cattle selling centres in 1989 were as follows:

##### **Prime Cattle**

	<u>Frankton</u>	<u>Stortford</u>	<u>Addington</u>
<b>Dec/Jan:</b>			
Steers	\$458-\$965	\$500-\$1005	\$460-\$750
Heifers	\$385-\$462	\$430-\$620	\$300-\$500
Cows	\$220-\$605	\$427-\$637	\$280-\$500
<b>Feb/Mar:</b>			
Steers	\$490-\$1000	\$600-\$920	\$450-\$950
Heifers	\$300-\$723	\$430-\$790	\$300-\$650
Cows	\$200-\$750	\$220-\$582	\$280-\$560
<b>April/May:</b>			
Steers	\$465-\$1065	\$500-\$850	\$520-\$850
Heifers	\$320-\$670	\$390-\$690	\$300-\$600
Cows	\$200-\$750	\$220-\$582	\$240-\$580
<b>June/July:</b>			
Steers	\$490-\$1100	\$480-\$1000	\$550-\$1000
Heifers	\$328-\$800	\$380-\$702	\$380-\$750
Cows	\$270-\$900	\$350-\$532	\$300-\$650
<b>Aug/Sept:</b>			
Steers	\$635-\$1330	\$760-\$1240	\$580-\$1322
Heifers	\$380-\$1005	\$490-\$977	\$430-\$905
Cows	\$300-\$900	\$400-\$820	\$290-\$800
<b>Oct/Nov:</b>			
Steers	\$640-\$1330	\$680-\$1035	\$550-\$1464
Heifers	\$462-\$865	\$540-\$970	\$450-\$1100
Cows	\$300-\$1060	\$400-\$800	\$230-\$850

Source: New Zealand Farmer 1989 issues

### **1.4.7 Cattle Prices - Store and Breeding Stock**

The following tables are a guide to the average prices paid for store and breeding cattle throughout the country last year (summarised from the Livestock pages in the N.Z. Farmer).

	<u>Frankton</u>	<u>Stortford</u>	<u>Addington</u>
<b>Dec/Jan:</b>			
Adult steers	\$530-\$758	\$460-\$602	\$350-\$460
Yearling steers	\$340-\$552	\$300-\$452	\$200-\$300
Adult heifers	-	to \$530	\$200-\$300
Yearling heifers	\$240-\$390	\$200-\$315	\$180-\$250
Weaner calves	-	-	-
<b>Feb/Mar:</b>			
Adult steers	\$480-\$868	\$500-\$660	\$304-\$500
Yearling steers	\$250-\$570	\$350-\$580	\$220-\$430
Adult heifers	to \$515	\$400-\$505	\$250-\$548
Yearling heifers	\$250-\$475	\$250-\$450	\$220-\$350
Weaner calves	\$116-\$425	\$180-\$380	\$152-\$360
<b>April/May:</b>			
Adult steers	\$442-\$735	\$440-\$610	-
Yearling steers	\$272-\$600	\$340-\$557	\$300-\$450
Adult heifers	-	-	to \$324
Yearling heifers	\$248-\$460	\$250-\$375	\$280-\$350
Weaner calves	\$140-\$382	\$130-\$440	\$150-\$300
<b>June/July:</b>			
Adult steers	\$525-\$830	\$397-\$632	to \$460
2yr steers	\$272-\$795	\$330-\$600	\$320-\$588
Adult heifers	-	\$587-\$378	to \$642
2yr heifers	\$238-\$462	\$250-\$502	\$270-\$330
M/S yearlings	\$125-\$402	\$170-\$410	\$220-\$318

	<u>Frankton</u>	<u>Stortford</u>	<u>Addington</u>
<b>Aug/Sept:</b>			
Adult steers	\$590-\$840	\$632-\$792	\$520-\$628
2yr steers	\$425-\$845	\$420-\$772	\$564-\$588
Adult heifers	-	-	\$380-\$642
2yr heifers	\$275-\$648	\$276-\$476	-
M/S yearlings	\$200-\$550	\$150-\$582	\$350-\$500
<b>Oct/Nov:</b>			
Adult steers	\$750-\$838	-	\$520-\$628
2yr steers	\$482-\$902	\$540-\$830	-
Adult heifers	-	-	\$380-\$450
2yr heifers	\$372-\$623	\$500-\$700	-
M/S yearlings	\$285-\$625	\$250-\$624	\$350-\$500

Source: New Zealand Farmer 1989 issues

## 1.5 DAIRY PRODUCE

### 1.5.1 Whole Milk for Manufacture

Each season, the New Zealand Dairy Board announces an advance price to be paid, per kg of 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.

The following Dairy Company payouts are representative of those made to producers over the last four seasons.

<u>Company</u>	<u>Payout</u> <u>1985/86</u>	<u>Payout</u> <u>1986/87</u>	<u>Payout</u> <u>1987/88</u>	<u>Payout</u> <u>1988/89</u>
Northland	386c/kg	330c/kg	382c/kg	565c/kg
Waikato	400c/kg	361c/kg	415c/kg	570c/kg
Kiwi	400c/kg	380c/kg	415c/kg	590c/kg
Manawatu	400c/kg	352c/kg	404c/kg	575c/kg
Marlborough	377c/kg	314c/kg	368c/kg	557c/kg
Tai Tapu )	395c/kg	288c/kg		
Temuka )	412c/kg	343c/kg	385c/kg	510c/kg
Otago Co-op	399c/kg	385c/kg	437c/kg	625c/kg

### 1.5.2 Milkfat Price Forecast

Average payouts for milkfat are expected to be around \$6 per kg for the next two to three years.

Source: Straight Furrow, October 1989

### 1.5.3 Milkfat Price Trends

#### Season average Prices

The "season average" price quoted below is the average payout made by 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):

Years-	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88
Advance-	302.7c	304.2c	337.3c	319.4c	300.0c	and
Final-	63.9c	60.0c	69.1c	78.7c	60.0c	1988/89
Season						see*
Average-	366.5c	364.2c	406.4c	398.1c	360.0c	below

\* The average weighted figure for 1987/8 was 407 cents per kg and for 1988/89 was 569 cents per kg.

Source: New Zealand Dairy Board.

### **1.5.4 Whole Milk for Town Supply**

The payout price that individual Companies pay to their suppliers is normally confidential.

In the North Island most town supply factories have amalgamated with the seasonal supply factories, and payouts to town milk suppliers are on a milkfat basis, varying between months and areas.

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

One Canterbury supplier expects to average 32 cents per litre for 1989/90. This is a weighted average, and the range between the months of minimum price (October to February) and months of maximum price (May and June) is 16 cents.

The following represent the **national average** producer prices for finest grade at the farm gate and are expressed as cents per litre of wholemilk.

1982/83	1983/84	1984/85	1985/86	1986/87
23.0	24.0	26.8	27.8	23.9

Source: New Zealand Dairy Board

In the **South Island** the 1987/88 average price paid varied between approximately 23 and 34 cents per litre over the season and in 1988/89, between 28 and 38 cents per litre.

### **1.5.5 Bobby calves** (Refer also to Section 1.4.5 (bull calves))

In early spring 1989 farmers were receiving \$70 to \$100 per head for four day old calves sold for rearing. This very much depends on district, and sex, breed and weight of calf. The average is more likely to be \$50 to \$60.

Source: M.A.F.Tech Farm Monitoring Report September 1989.



## 1.6 PIG PRODUCTION

### 1.6.1 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.

#### MEAT SERVICES LIMITED

A Member of the C.F.M. Group of Companies

Pig Schedule effective as from Monday 3 January 1990

Note: Weight ranges and payments based on "hot" carcass weight, cents per kg (net)

CODE	A	B	C	D	E
Fat Measure	under 35 kg cents	35.0-40.0 kg cents	40.5-45.0 kg cents	45.5-50.0 kg cents	50.5-55.0 kg cents
Z Under 6	115	115	115	115	115
1 6 - 9	295	315	315	305	305
2 10 - 12	290	295	295	290	290
3 13 - 15	250	250	250	250	270
4 16 - 18	160	160	160	155	170
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
Fat Measure	55.5-60 kg cents	60.5-65.0 kg cents	65.5-70.0 kg cents	70.5-75.0 kg cents	Over 75.0 kg cents
Z Under 6	115	115	115	115	115
1 6 - 9	285	285	285	285	165
2 10 - 12	285	285	285	285	165
3 13 - 16	265	270	275	255	160
4 17 - 18	190	200	200	200	150
5 19 - 21	130	130	130	130	130
6 22 - 24	100	100	100	100	100
7 Over 24	100	100	100	100	100

**Manufacturing**

All weights, ex Belfast - 130 cents per kilogram

These prices are subject to change at short notice.

**Deductions**

		\$ per head
Levies:	Pork Industry Council Administration	) \$3.75
	Pork Marketing Board Stabilisation Levy	)
	Federated Farmers Levy	\$.0175
	Meat Inspection Levy	\$2.50
	ACC Levy increase - see below	
	Total per Pig	<u>\$6.27</u>

**Additions** (built into Schedule):

ACC levy increase adjustment

Pigs under 50 kg 3c per kg

Pigs over 50 kg 2c per kg

### 1.6.2 Pig Sales (Local Market)

A lot of pork is sold to the local fresh meat market. Most weaners and store pigs are sold between farmers by private contract with prices based on the schedules for slaughter pigs. Breeding stock are marketed similarly with premiums for stock with a Performance Testing background. A limited number of all classes of stock are sold at auction through saleyards.

The following tables are a guide to pig prices in 1989 and are summarised from the livestock pages published in the N.Z. Farmer:

	<u>Porkers</u>	<u>Baconers</u>	<u>Choppers</u>	<u>Weaners</u>
	\$	\$	\$	\$
<b>Dec/Jan:</b>				
Frankton	82-130	118-168	90-198	20- 69
Addington	70-120	110-160	110-250	15- 57
<b>Feb/Mar:</b>				
Frankton	71-150	130-177	60-180	17- 60
Addington	70-125	100-170	110-230	15- 50
<b>April/May:</b>				
Frankton	82-145	115-172	90-195	17- 75
Addington	80-140	115-190	80-200	20- 60
<b>June/July:</b>				
Frankton	80-145	90-180	50-250	27- 74
Addington	80-165	140-202	100-280	30- 70
<b>Aug/Sept:</b>				
Frankton	90-155	145-198	70-200	32- 89
Addington	100-165	150-200	100-270	30- 80
<b>Oct/Nov:</b>				
Frankton	90-165	165-228	88-305	32- 92
Addington	120-175	170-220	130-245	35- 85

## **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 1989**

Prices paid by meat companies:

- (i) Waitaki International (Wairoa)  
\$5 per head net to farmer (excluding freight)
- (ii) AFFCo. (Mamaku)  
45 cents per kg for goats up to 15 kg  
50 cents per kg for goats 15.5 kg and over
- (iii) Fortex (Canterbury)  
45 cents per kg for goats of between 4 and 11 kg  
80 cents per kg between 11.2 and 18.9 kg  
60 cents per kg for 19 kg and over  
Note these are on a dressed weight basis and are net of all charges.
- (iv) N.Z.Chevon Ltd (MOPANZ - Pukekohe)  
40 cents per kg (net of all levies) for goats of 11.1 to 17.5 kg

Note that the previous difficulties in retaining mammary glands for inspection experienced by some companies have now been overcome.  
Slaughter goats averaged \$5 per head in the 1988 season.

Source: N.Z.Farmer September 1989

### **1.7.3 Goat Milk**

Milk for processing is fetching between 35 and 50 cents per litre, depending on the type of product that is to be manufactured. The majority of milk is converted to milk powder (mainly for export), for which the price paid is lower than that for milk intended for cheese production.

Raw milk is marketed privately, by the producer, through supermarket and delicatessen outlets or, alternatively, by co-operatives. Price is very variable and depends almost entirely on local supply and demand.

### **1.7.4 Goat Fibre**

#### **(i) Mohair Production**

Market demand for 'low kemp' mohair is reflected in the prices paid.

The following are the average prices (\$NZ per kg fleece) for mohair as at December 1989:

<b>Grade</b>	<b>Average Price \$NZ/kg</b>
A Super Fine kid	\$19.50
B Super Fine Kid	\$9.80
A 2nd Super Fine Kid	\$10.00
A Kid	\$11.50
A 2nd Kid	\$7.55
A Young Goat	\$9.00
A 2nd Young Goat	\$5.40
B Young Goat	\$6.00
B 2nd Young Goat	\$5.00
A Crossbred Young Goat	\$4.70
A Adult	\$5.50
B Adult	\$4.50
A 2nd Adult	\$5.00

(ii) Cashgora Production

Cashgora production is showing rapid growth, now accounting for over 50% of the NZ Mohair/Cashmere Warehouse Company's fibre sales.

Cashgora yields from G4 goats range from 0.7 to 1.5 kg per goat, and farmers typically receive returns in the region of \$20 to \$25 per goat annually (net of all charges except shearing - twice yearly) from Cashgora sales.

The following are the most recent prices obtained for cashgora (as at December 1989):

<b>Grade:</b>	<b>\$/kg</b>
Cashgora A	54.32
Cashgora B	34.36
Cashgora C	15.76
Cashgora D	22.95
GY/BR (coloured) Cashgora	15.00

(iii) Cashmere Production

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

The following are the most recent prices obtained for cashmere (as at December 1989).

Prices are quoted in \$US per kg Down (not fleece). The NZ\$/kg fleece price is calculated by:

$$\text{\$US down} \times \text{US exchange rate} = \text{\$NZ down}$$

$$\text{NZ\$/kg down} \times \text{yield} = \text{\$NZ/kg fleece}$$

Yield = % down fibres to guard hair on a weight basis (not number of fibres)

Line:	\$US/kg Down *	\$NZ/kg Down	\$NZ/kg Fleece
WW 1 - 5	110.47	186.98	74.23
WW 1 - 4	110.47	186.98	55.53
WW 1 - 2	104.94	177.62	33.92
WW 2 - 5	79.96	135.34	62.93
WW 2 - 4	79.96	135.34	49.39
WW 2 - 2	79.96	135.34	31.26
WC 1 - 3	110.47	186.98	50.11
WC 1 - 2	99.42	168.28	31.36
WC 2 - 5	79.96	135.34	56.30
WC 2 - 4	79.96	135.34	42.76
WC 2 - 2	67.96	115.03	19.67
WC 1 - 1	54.57	92.36	13.02
GY 1 - 3	104.95	177.64	43.69
GY 1 - 2	83.96	142.11	23.59
GY 2 - 4	77.96	131.95	42.48
GY 2 - 2	66.26	112.15	19.51
BR 1 - 3	104.95	177.64	42.63
BR 1 - 2	83.96	142.11	23.02
BR 2 - 3	77.96	131.95	32.98
BR 2 - 2	66.26	112.15	19.06
BR 1 - 1	47.45	80.31	8.35

\* \$US : \$NZ = 0.5908

Source: J.Fegan, NZ Mohair Cashmere Warehouse Co. Ltd.

### 1.7.5 Goat Fibre Price Trends

(i) Table of Goat Fibre Prices 1986 to 1990

Year -	1986/87	1987/88	1988/89 (E)	1989/90 (F)
Mohair (Fleece) (per kg)	\$7.70	\$5.25	\$5.50	\$5.70
Cashgora (Fleece) (per kg)	\$27.57	\$28.83	\$30.00	\$31.00
Cashmere (Down) (per kg)	\$96.20	\$128.90	\$127.00	\$121.00

E = Estimate

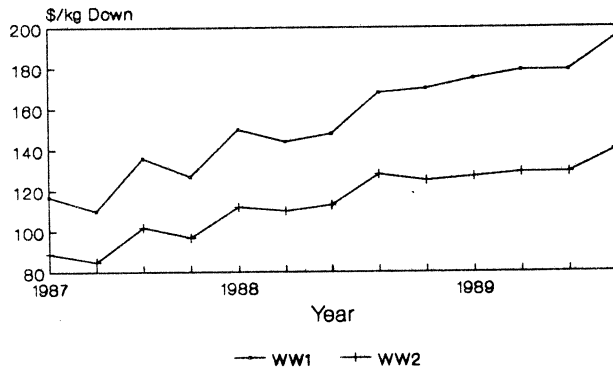
F = Forecast

Source : M.A.F., Department of Statistics, Meat Producer's Board, N.Z. Meat and Wool Board's Economic Service, (April 1989)

(ii) Graph of Cashmere Price Trends

WW1 - Superwhite. Under 16 microns

WW2 - Superwhite. 16.5 - 18.5 microns



Source: New Zealand Mohair/Cashmere Warehouse Company Ltd.

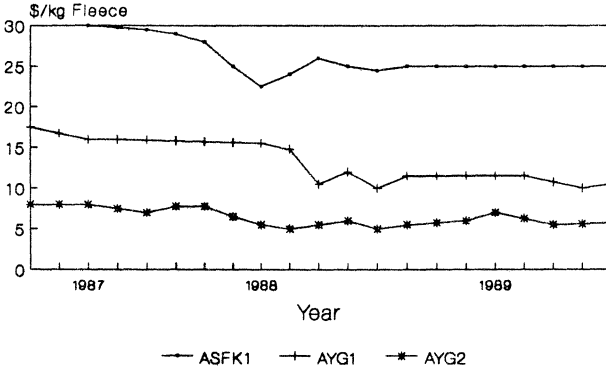
(iii) Graph of Mohair Price Trends

ASFK1 - A Super fine kid, under 26 microns, less than 2% kemp

AYG1 - A young goat, 30 - 34 microns, less than 2% kemp

AYG2 - A 2nd young goat, 30-34 microns 2-4% kemp

The graph highlights the premiums paid for fineness and kemp free mohair

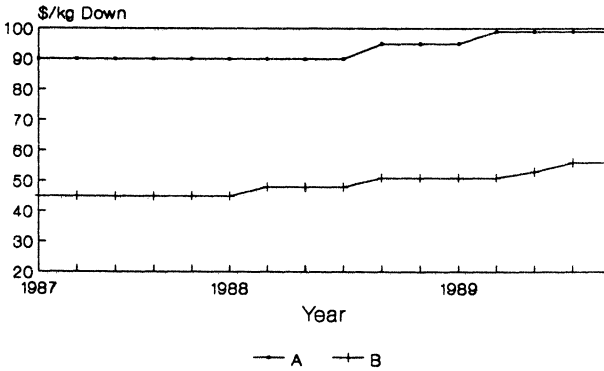


Source: New Zealand Mohair/Cashmere Warehouse Company Ltd.

(iv) Graph of Cashgora Price Trends

Cashgora A - under 19 microns

Cashgora B - under 22 microns



Source: New Zealand Mohair/Cashmere Warehouse Company Ltd.



### 1.7.6 Goat Livestock Sales

- (i) Typical prices in December 1989 were as follows (virtually unchanged from December 1988):

Pure-bred angora	does	\$70-\$1000	kids	\$50-\$200
Grade one	does	\$ 25- \$70	kids	\$15-\$ 50
Grade two	does	\$ 15- \$30	kids	\$15-\$ 30
Grade 3 and 4	does	\$ 5- \$20	kids	\$ 5-\$ 20
Pure bred bucks		\$70 to \$250		
Feral does		\$ 5 to \$10		
Pure bred wethers		\$15 to \$40		
Grade wethers		\$ 5 to \$15		
Cashmere & Cashgora Bucks		\$100 to \$250 with some sales to \$2800		

- (ii) Better quality farmed ferals are now fetching \$20 to \$30. Average prices for cashmere bearing does \$100 to \$150.

Source: J.Fegan, NZ Mohair/Cashmere Warehouse Co. Ltd.

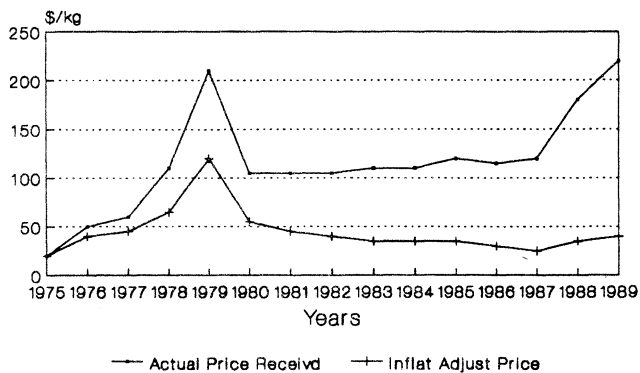
## 1.8 DEER PRODUCTION

### 1.8.1 Velvet

(i) Pool prices announced November 1989 ("The Press")

	\$
Wrightson (1st pool)	
Super A1 and A2	298.00
A1 long, medium and short	288.65
A2 long, medium and short	283.55
B1 long, medium and short	278.55
B2 long, medium and short	278.55
C1 long and short	230.05
C1 poor	191.00
C1 long	225.05
C2 short	229.00
C2 poor	170.55
Damaged 1	201.05
Damaged 2	190.00
Spiker 1	120.10
Spiker 2	100.50
Overgrown 1	195.05
Regrowth 1	115.99
Regrowth 2	81.00
Taiwan 1 & 2	256.00
Taiwan 3 & 4	241.00
Maturing	46.00
Shot	120.05

### 1.8.2 Pool Prices for A Grade Velvet 1975 to 1989



Source: "Situation and Outlook for New Zealand Agriculture 1989"  
M.A.F. Corp, April 1989

### 1.8.3 Venison

Schedule information is available weekly from a number of sources. Below is an example for the week beginning December 4 1989

Gross venison prices offered (dollars per kg carcass weight)

Grade	Weight range kg	FORTEX/ SUMMIT \$	MAIR \$	PPCS/ G.FDS \$	AFFCO \$
AP	less than 40	5.10	3.80	6.30	4.80
AP	40 to 45	5.10	4.50	6.30	4.80
AP	45 to 50	6.20	5.90	6.30	6.05
AP	50 to 53	6.85	6.75	7.05	6.75
AP	53 to 55	6.85	6.85	7.05	6.75
AP	55 to 60	6.85	6.85	7.05	6.75
AP	60 to 65	6.85	6.85	7.05	6.75
AP	65 to 70	6.85	6.85	7.05	6.75
AP	70 to 75	6.85	6.75	7.05	6.75
AP	75 to 85	6.85	6.75	7.05	6.75
AP	85 to 90	6.85	6.75	7.05	6.75
AP	over 90	6.85	6.75	7.05	6.75
AF1/AT	55 to 70	4.50	4.50	4.50	4.05
AF2	all weights	3.20	4.00	3.90	3.20

(ii) Fallow Schedule (dollars per kg carcass weight)

Grade -	AP					
Age -	under 24 months				over 24 months	
Weight -	22 kg	24 kg	25 kg	26+ kg	<25 kg	>25 kg

**"Game**

<b>"Meats"</b>	\$6.10	\$6.20	\$6.20	\$6.20	\$5.10	\$5.10
<b>"Mair"</b>	\$6.00	\$6.00	\$6.20	\$6.20	\$4.50	\$4.70

Note that the Game Industry Board Levy has not been deducted

Source: N.Z. Farmer December 6 1989

### 1.8.4 Venison Price Trends

#### (i) Venison Schedule prices 1986 - 1990

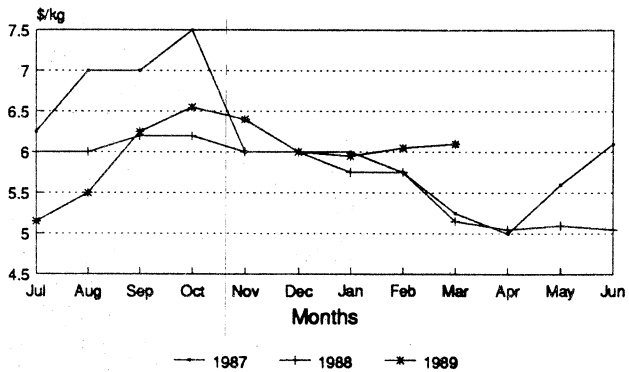
	1986/87	1987/88	1988/89 (E)	1989/90 (F)
Grade AP2 (50-70 kg) (per/kg)	\$6.20	\$5.80	\$6.00	\$6.00
Weighted ave.-all grades (per/kg)	\$5.80	\$5.40	\$5.80	\$5.80

E = Estimate

F = Forecast

Source : Situation and Outlook for Agriculture M.A.F.Tech (April 1989)

#### (ii) Graph of Schedule Prices (\$ per kg) (50 to 70 kg stag)



Source: Situation and Outlook for Agriculture M.A.F.Tech (April 1989)

### 1.8.5 Deer - Live Sales

Livestock prices vary markedly through the year and between districts. The following prices are for Canterbury, January 1990.

Yearling hinds - Average \$380, range \$350 to \$450.

Adult hinds - Average \$650 (Older hinds down to \$300)

Weaners - \$300 average for hinds, \$180 for stags.

Stags (velveting) - Average \$600

Stags (breeding) - Average \$2500 to \$5000 (top stags to \$50,000)

## 1.9 CROPS

### 1.9.1 Wheat

Mill contracts are available through various agents and terms vary considerably. Some are relatively simple e.g.

- (i) **Elders Pastoral Milling Contract 1989/90**  
Arawa wheat 4g/100 kernal weight, 2% screenings, delivered Christchurch 50% before 31 March and 50% before 31 July - **\$310 per tonne.**
- (ii) **Goodman Fielder Wattie Fixed Price contracts for the 1989/90 season:**
- |               |  |
|---------------|--|
| Premium Wheat | \$310 per tonne delivered Christchurch |
| Purple Wheat  | \$330 per tonne delivered Christchurch |
| Biscuit Wheat | \$300 per tonne delivered Christchurch |
| Feed Wheat    | \$265 per tonne delivered Christchurch |
- (iii) Other contracts are more complex. As an example one company will pay a price based on the Australian Standard Wheat price and the \$US at the time of delivery, converted to \$NZ. Payment thereafter is based on the Contract Standards and Index Points outlined below:

<b>Falling Number</b>	Minimum 220 seconds on Wheatmeal			
<b>Screenings</b>	Maximum tolerance 2%, with the option to purchase over 2% which will be adjusted on weight dockage basis.			
<b>Moisture</b>	<12% plus 2 index points. 14% Maximum tolerance with the option to purchase on weight dockage basis any wheat with over 14% moisture.			
<b>Kernal Weight</b>	Oroua	Rongotea	Kotare	
	37 - 40 0	42 - 45 0	40 - 43 0	
	>40 +2	>45 +2	>43 +2	
	Weka	Otane		
	42 - 45 0	43 - 45 0		
	>45 +2	>45 +2		
	With the option to buy above kernal weights			
<b>Cultivar</b>	Oroua	100	Rongotea	100
	Otane	105	Kotare	100

Alcala	105	Weka	100
--------	-----	------	-----

And any other cultivars by special arrangement.

<b>Storage</b>	Jan	-3	April	+1	July	+4
	Feb	-2	May	+2	Aug	+5
	Mar	-1	June	+3	Sept	+6
					Oct	+7
<b>Baking Score</b>	16	-20	21	-3	26	+2.5
	17	-16	22	-2	27	+4
	18	-12	23	-1	28	+6
<b>Baking Score</b>	19	-8	24	0	29	+8
	20	-4	25	+1	30	+10

The minimum acceptable Bake Score is M.D.D.20 but the company has the option to purchase wheat below this score on the above index basis

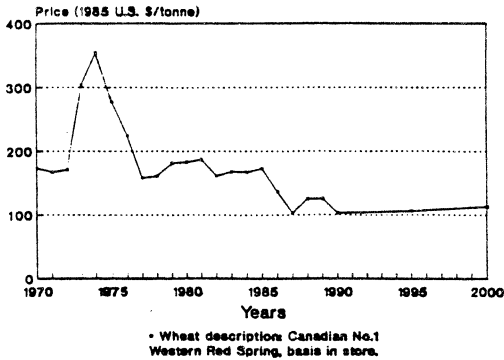
**Quality Payment** An addition payment of \$20.00 per tonne will be made by the company for lines testing M.D.D.20 to M.D.D.24 and \$40.00 per tonne for quality lines testing M.D.D.25 and above.

The M.D.D. Bake Score, Sprout Index and Kernal Weight shall be determined by the Wheat Research Institute. Other qualities shall be determined in the Company's Laboratory.

- (iv) 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.

### 1.9.2 Wheat Price - World Trends

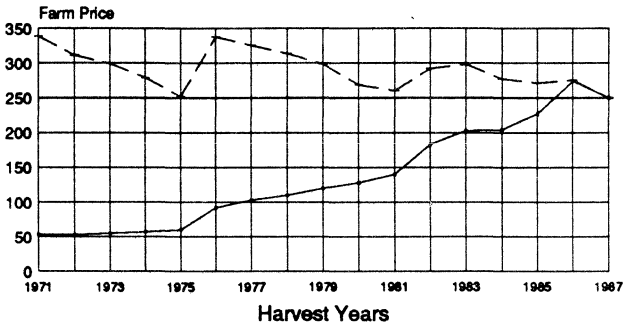
The graph shows average World wheat prices \* for 1970-1987 and forecasts for 1988-2000. The prices are in inflation adjusted U.S. dollars per tonne, based on the value of the \$US in 1985. That is, the forecast values are reported after future inflation has been removed. The forecast prices represent averages only.



Source: Lincoln College

### 1.9.3 Wheat Prices 1971 to 1987 (\$NZ per tonne)

"Nominal" dollars are what New Zealand growers were actually paid each harvest year; "Real" dollars are based on the value of the \$NZ in 1988 and are adjusted for inflation.



\_\_\_\_\_ "Nominal" dollars    - - - "Real" dollars

Source: Lincoln College



## 1.9.4 Barley

### Malting

- (i) The Canterbury New Zealand Malting Company contract price for No. 1 Grade Malting barley for the 1988/89 harvest is \$250 per tonne in the South Island (delivered Heathcote) or \$240 per tonne (delivered Rakaia or Ashburton), and \$280 per tonne in the North Island (delivered Marton).

For barley with a screening percentage greater than 5%, the following penalties will apply:

\$1.00 per 1% over 5% up to and including 10% (S.I.) and 15% (N.I.).

Where the malting company requires the contracted grower to store the barley, a storage increment will be paid at the rate of \$10.50 per tonne for delivery during the month of May and a further \$3.10 per tonne per month thereafter to December. Where the company requires the barley to be stored, the contract price will be paid following delivery and grading.

- (ii) Farmlands Grain Fixed Price Contract for malting barley is \$250 per tonne delivered port. A pool is also available.
- (iii) Elders Pastoral are also offering \$250 per tonne for the 1989/90 harvest.

### Feed

Farmlands Grain "Back to Back" contract for delivery Christchurch, March 1990, is \$220 per tonne plus an increment of \$2.50 per tonne per month from 1st April 1990. A pool is also available.

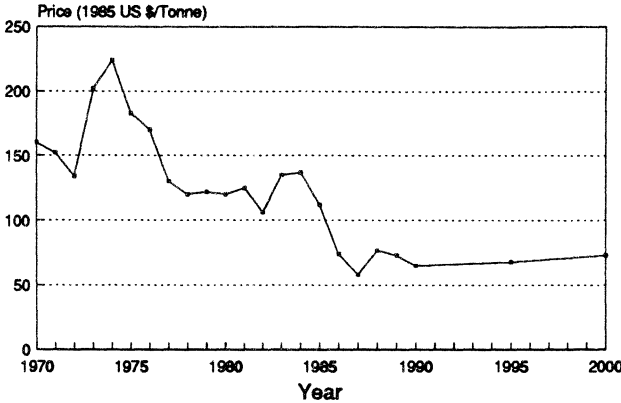
Elders Pastoral price also \$220 per tonne

### Seed

Contract price for seed barley in 1988/89 will average about \$20 per tonne more than malting or feed prices i.e. \$240 per tonne for feed and \$270 per tonne for malting cultivars.

**1.9.5 Barley/Maize Price - World Trends**

An indication of the World Market performance for barley is the World maize price. The graph shows average World maize prices \* for 1970-1987 and forecasts for 1988-2000. The prices are in inflation adjusted U.S. dollars per tonne, based on the value of the \$US in 1985. That is, the forecast values are reported after future inflation has been removed. The forecast prices represent averages only.

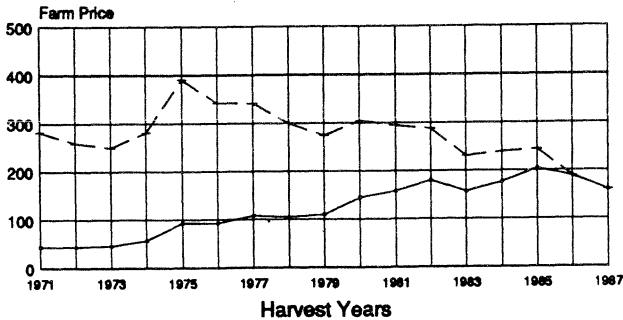


Source: Lincoln College

\* Maize Description: U.S. No.2, Yellow, f.o.b. Gulf ports.

**1.9.6 Barley Prices 1971-1987 (\$NZ per tonne)**

"Nominal" dollars are what New Zealand growers were actually paid each harvest year; "Real" dollars are based on the value of the \$NZ in 1988 and are adjusted for inflation.



\_\_\_\_\_ "Nominal" dollars    - - - "Real" dollars

Source: Lincoln College

### 1.9.7 Oats

- (i) Farmlands Grain offers growers in the South Otago/Southland regions a Fixed Price Contract of \$240 per tonne.
- (ii) Elders Pastoral are offering \$250 per tonne for the 1989/90 harvest.
- (iii) Fleming and Co. (Gore) have contracts for \$240 per tonne (Screenings and moisture not to exceed 10% and 15% respectively). A deduction of 1% (i.e.\$2.40) per tonne is made for every 1% screenings.

### 1.9.8 Peas

The prices offered for field dressed peas in bulk grown under contract for the 1989/90 harvest are:

- 1. **Field peas**
  - Blue peas \$280 to \$320 per tonne.
  - White peas \$400 to \$450 per tonne
  - Maple peas \$310 per tonne
- 2. **Garden peas** - average \$400 per tonne.
  - Varies depending on cultivar.
  - Paid on M/D weight.

**Note:** Growers are recompensed for sacks if the crop is sold bagged rather than bulk.

#### 3. **Freezer peas -**

<u>Grade</u>	<u>Tenderometer Reading</u>	<u>\$ per tonne packed weight</u>		
		Canterbury *	Manawatu	Hawkes Bay
0	not exceeding 90	440.70	-	
1	90 to 95	409.60	423.70	437.82
2	95 to 100	373.00	385.90	398.70
3	100 to 105	336.60	345.10	359.79
4	105 to 110	302.70	313.50	323.56
5	110 to 115	290.00	300.00	310.00
6	115 to 120	268.70	278.10	287.21
7	over 120	245.00	253.40	261.88

**Note:** Freezer pea crops that are passed over are paid for at a previously agreed rate.

- \* For crops planted after 26 October, an additional 1% per day up to a maximum of 21% will be paid (Canterbury only).

### **1.9.9 Lupins**

Very few lupin seed crops are grown at present, the lack of a market for the grain being one of the major reasons. It is estimated that good quality lupin seed would average \$285 per tonne (range \$250 to \$300)

### **1.9.10 Maize**

- (i) Farmlands Grain Fixed Price Contracts for 1989/90 vary between region and range from \$250 to \$265 per tonne.  
The Bay of Plenty contract is \$258.
- (ii) Refer to 1.9.5 for World price trends for maize.

### **1.9.11 Ryecorn**

The price at present paid for ryecorn is in the vicinity of \$330 per tonne (Elders Pastoral and Goodman Feilder Wattie (N.Z.)Ltd )

### **1.9.12 Lentils**

Contracts for the 1988/89 harvest averaged \$520 per tonne. 1989/90 prices are expected to be as good as or higher than the previous year.

### **1.9.13 Triticale**

1990 harvest prices for triticale delivered Christchurch are between \$225 and \$250 per tonne.

Elders are offering \$240 per tonne for the 1989/90 harvest.

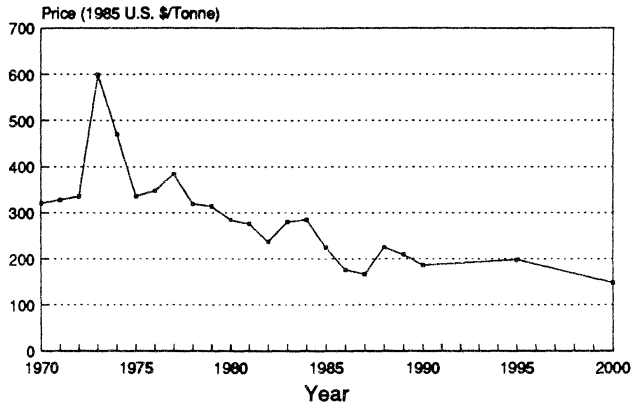
### 1.9.14 Oilseed Rape

(i) It is estimated that oilseed rape for the Japanese market will return approximately \$400 per tonne in the 1989/90 season.

(ii) **Oilseed Rape/Soyabean Price - World Trends**

An indication of the World market performance for oilseed rape is the World soyabean price.

The graph shows average World soyabean prices \* for 1970-1987 and forecasts for 1988-2000. The prices are in inflation adjusted U.S. dollars per tonne, based on the value of the \$US in 1985. That is, the forecast values are reported after future inflation has been removed. The forecast prices represent averages only.



\* Soybean Description: U.S.,  
c.i.f. Rotterdam

Source: Lincoln College

## **1.10 SMALL SEEDS**

The price paid for small seeds is based on machine dressed weights which depend on the purity of the seed line. Prices are very variable and depend a lot on the region and season. The following prices are for first generation certified seed prices paid to the grower, as at December 1989, in Canterbury. It is expected that, due to the climatic conditions, prices for many of these lines will be higher in the coming months.

### **1.10.1 Pasture Grasses**

	<b>\$/kg</b>
Ruanui Ryegrass	1.00
Nui Ryegrass	1.00
Ariki Ryegrass	.80
Manawa Ryegrass	1.20
Paroa Italian Ryegrass	1.00
Tama Ryegrass	1.25
Moata Ryegrass	1.15
Ellett Ryegrass	1.50
Matua Prairie Grass	1.00
Roa Fescue	4.50
Phalaris	6.00
Kahu Timothy	2.00
Wana Cocksfoot - pool price expected to be \$3.00 to \$3.50	

### **1.10.2 Turf Species**

Crested Dogstail	2.60
Browntop	6.00
Fescue (lawn)	3.00
Massey Basyn (Yorkshire Fog)	4.00
Yarrow	15.00

Farmlands Grain offer American Multiplication Programme contracts for turf type perennial ryegrasses and tall fescues. Returns are \$1.50 per kilogram to the grower.

### **1.10.3 Legumes**

	<b>\$/kg</b>
<b>Lotus:</b>	
Maku	16.00
(Note that pool price may be higher)	
Corniculatus	12.00

**Clover Seed:**

Huia White		3.00
Pitau	up to	5.00
Turoa Montgomery Red		2.50
Hamua Broad Red		2.80
Pawera		4.50

**Lucerne:**

		<b>\$/kg</b>
Wairau		7.50
Oranga		7.50

**1.10.4 Brassicas****Kale:**

Medium Stemmed		1.50
Giant		2.50

**Turnips:**

1.60

**Swedes:**

1.75

**Rape:**

Rangi		2.50-2.80
Winifred		2.50

## 1.11 FRUIT PRODUCTION

Prices paid to producers or 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.

### **Fruit Price - Auckland Wholesale Market - 1989 (to October)**

N.B. all prices are \$ per case except stawberries, \$ per carton

	Jan	Feb	Mar	April	May	June
Avocados	24.85	18.45	26.70	33.90	69.10	79.00
G/H Grapes	48.50	29.25	24.55	27.35	31.80	40.60
Kiwifruit	15.80	14.90	8.80	6.75	8.55	5.95
Lemons	15.20	12.30	12.10	13.85	15.90	7.45
Oranges	11.00	12.15	22.00		12.55	15.55
Peaches	14.55	15.30				
Strawberries	19.85	31.05	28.45	22.45		
Tamarillos			13.45	19.40	12.70	20.95
Mandarins					18.40	15.25

	July	Aug	Sept	Oct
Avocados	84.25	33.95	28.20	37.50
G/H Grapes	47.50	5.55	4.25	5.35
Kiwifruit	10.35	10.05	11.35	13.30
Lemons	7.90	8.95	12.35	14.00
Oranges	9.75	10.65	14.30	14.65
Strawberries		35.00	38.00	22.25
Tamarillos	12.80	19.80	21.55	27.35
Mandarins	21.35	26.05	26.20	23.25

#### 1.11.1 Apples

##### **Auction Prices**

Apples for auction are usually sold by the crate (15 to 19 kilograms) and typically fetch \$10 to \$30 per crate depending on the time of year, variety and region.



### Apples for Export

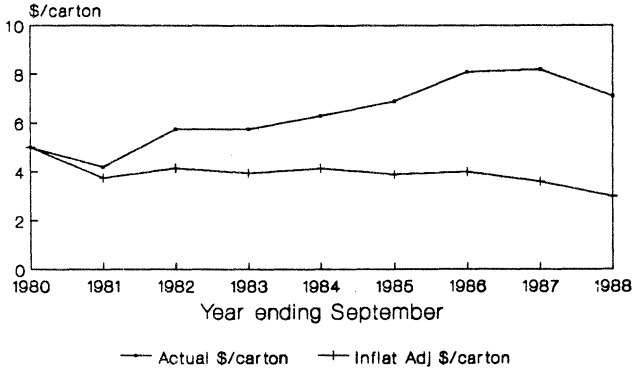
(i) Apple and Pear Board price for 1989 was \$7.40. / traycarton.

(1 tray/carton = 18.5 kg)

Source: N.Z.Farmer 13 December 1989

### (ii) Price Trends

The graph shows actual prices received for apples (dollars per tray-carton), along with the "inflation adjusted" prices, based on the value of the 1980 dollar.



### Apples for Processing

Watties (Hastings) 1989/90 prices are:

All grades - \$160 per tonne (average)

### 1.11.2 Other Pip Fruit

#### Pears

Apple and Pear Board price for 1988 was 39.368c per kg

#### Process Pears

Watties (Hastings) 1989/90 payout for processing quality pears is:

1st grade \$331 per tonne (F.I.S.)

2nd grade \$245 per tonne (F.I.S.)

#### Nashi (Asian Pear)

##### (i) Auction Prices

In the region of \$6 to \$15 per tray in a normal season but very large variations can occur.

## (ii) Export Prices

1988 prices were in the range of \$8 to \$12 per tray.

Source: N.Z.Farmer November 1989

Prices to growers for export quality nashi in the 1989 season were expected to be in the region of \$15.00 per tray.

### 1.11.3 Stone Fruit

#### **Auction Prices**

Prices for Apricots, Peaches, Nectarines and Plums are extremely variable and very climate dependant. Trays of early fruit may fetch \$15 to \$25 especially for peaches or apricots, whereas, later in the season, a case may only fetch \$4 to \$5.

#### **Avocados**

Avocados growers averaged a net \$14 to \$15 per tray in the 1988/89 season compared with \$11 in the 1987/88 season

Source: N.Z.Farmer, November 1989.

#### **Processing**

Watties (Hastings) 1989/90 payout prices are

Plums:

Canning	\$570 per tonne (Average)
Jam	\$420 per tonne

Peaches:

1st grade	\$550 per tonne
2nd grade	\$482 per tonne

Nectarines:

All grades	\$700 per tonne (Average)
------------	---------------------------

### 1.11.4 Berryfruit

Processing (J. Wattie Foods Ltd - Hastings)

Strawberries	\$2160 per tonne
Boysenberries	\$2110 per tonne
Raspberries	\$2850 per tonne

#### **Blackcurrents**

Prices for these averaged \$1.20 to \$1.40 in 1989.

Source: N.Z.Farmer December 20 1989

### 1.11.5 Kiwifruit

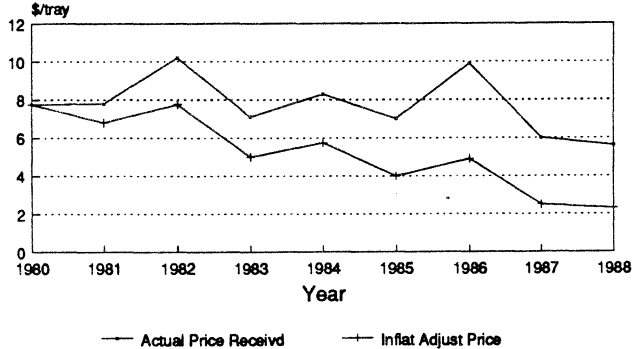
The Kiwifruit Marketing Authority expects that final payout prices for the 1989 harvest to be \$7.00 per tray.

Source: N.Z.Farmer November 1989

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

1st grade \$200 per tonne

### **Returns to Growers 1980 to 1988**



Source: N.Z.Kiwifruit Marketing Authority, Department of Statistics.

### 1.11.6 Citrus

#### **Mandarins**

The approximate average return to growers(1989) would be between \$1.50 and \$2.00 per kg.

Source: MAFTech Farm Monitoring Report September 1989

### 1.11.7 Grapes

#### **Auction Prices for Table Grapes**

Usually sold by the kilogram, fetching up to \$10.00.

#### **Bulk Grapes for Wine Production**

Muller Thurgau grapes are fetching \$430 per tonne this season on contract.

Other varieties are usually priced equivalent to the basic varieties (based on yield).

For example a Chardonay grape normally yields only half of the above and should therefore fetch \$800 to \$900 per tonne.

## 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.

Auction prices paid for a large range of vegetables in the four main centres of Auckland, Palmerston North, Wellington, Christchurch are available in the "New Zealand Farmer" and "Horticulture News".

Auckland Wholesale Market Price - 1989 (to October)

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
Buttercup	4.15	3.30	4.45	3.95	7.20	10.20
Cabbage	3.60	5.45	5.00	2.30	2.10	4.05
Carrots	6.25	6.15		4.15	7.75	9.40
Cauliflower	10.65	12.30	9.45	7.50	7.40	12.75
Celery	10.30	12.15	9.45	13.50	8.65	10.95
Kumara	47.00	15.50	11.10	11.80	11.75	15.10
Lettuce	7.45	8.50	5.50	6.80	12.35	8.45
Onions	7.95	4.65	3.50	3.95	4.50	5.95
Potatoes	11.60	11.75	7.30	6.45	6.20	8.35
Pumpkin	11.90	9.50	5.55	6.90	5.20	7.85
Tomatoes	9.80	8.75	7.70	9.15	7.60	13.70

	July	Aug	Sept	Oct
Buttercup	11.90	11.30	9.75	9.30
Cabbage	4.95	8.15	8.90	5.50
Carrots	7.95	3.85	4.40	12.70
Cauliflower	13.65	4.90	7.90	10.70
Celery	18.65	22.25	22.70	12.75
Kumara	14.85	14.60	14.75	17.65

	July	Aug	Sept	Oct
Lettuce	23.50	17.00	5.95	3.80
Onions	7.30	7.20	6.45	6.90
Potatoes	8.40	8.45	8.60	8.15
Pumpkin	7.30	7.25	6.90	15.55
Tomatoes	23.95	30.15	26.95	25.40

Source: Horticulture News 1989 issues

### **1.12.2 Vegetable Prices (Process)**

#### **Asparagus**

(i) 1989 harvest price for Hawkes Bay (J.Wattie Foods):

1st grade	\$2500 per tonne
2nd grade	\$1400 per tonne

(ii) Growers Foods

First Grade - \$2.53 per kg, Second Grade - \$1.10 per kg

Source: Horticulture News September 1989

#### **Beans**

(i) Beans grown for process freezing are paid for on the following scale (Canterbury and Hawkes Bay)

<b><u>Grade</u></b>	<b><u>Average Seed Length</u></b>	<b><u>\$ per tonne packed weight</u></b>
0	not exceeding 8.5mm	289.00
1	over 8.5mm, not over 9mm	280.90
2	over 9mm, not over 9.5mm	274.30
3	over 9.5mm, not over 10mm	269.20
4	over 10mm, not over 10.5mm	264.20
5	over 10.5mm, not over 11mm	261.30
6	over 11mm, not over 11.5mm	259.30
7	over 11.5mm, not over 12mm	257.30
8	over 12mm, not over 12.5mm	255.40
9	over 12.5mm, not over 13mm	253.40
10	over 13mm	251.00

(ii) Whole beans \$478.80 per tonne packed weight

(iii) Broad Beans (grey seeded) - \$400.80 per tonne packed weight  
(green seeded) - \$392.93 per tonne

**Beetroot**

1989/90 prices are as follows:

All grades            \$140 per tonne

**Brussel Sprouts**

1988/89 prices (Canterbury)

Company harvested

Grade 1 - \$491 per tonne

Grade 2 - \$447 per tonne

Grade 3 - \$404 per tonne

Grower harvested

Grade 1 - \$650 per tonne

Grade 2 - \$614 pre tonne

Grade 3 - \$576 per tonne

**Carrots**

1989/90 prices

\$ per tonne

Manawatu

\$85.00

Canterbury

-Main crop

\$89.50 (Grower harvested)

-Baby

\$430.00 (Company harvested)

N.B. For auction prices see Section 1.12.1

**Cauliflower**

Cauliflower grown for process freezing was paid for at \$486 per tonne packed weight (autumn/winter harvest , Canterbury) and \$335 per tonne (Manawatu) (1988/89).

1990 prices not confirmed at time of printing.

Note Canterbury price is pre-packed tonne, Manawatu price is intake weight (less deduction for faults).

N.B. For auction prices see Section 1.12.1

**Onions**

The price to be paid for baby onions will be approximately \$300 delivered for the 1989/90 harvest (Canterbury).

N.B. For auction prices see Section 1.12.1

**Peas**

See Section 1.9.8

## **Potatoes**

### **Process Potatoes**

#### **Canterbury:**

The price paid for process potatoes of acceptable quality in the 1989/90 season will be based on specific gravity. The base price will be \$155 per tonne (intake weight) for potatoes of S.G. = 1.084. Potatoes with a S.G. of less than this are not normally accepted. Above the minimum, an extra \$1.50 per tonne will be paid for every .001 that the S.G. exceeds the minimum.

In addition to the S.G. payout there will be an incentive for size of \$8 per tonne where greater than 80% of the potatoes are over 65mm at the greatest dimension. Where more than 90% are over 65 mm the incentive will be \$15 per tonne and \$20 per tonne for greater than 95% of potatoes being over 65mm.

Deductions will be made for diseased or defective potatoes, or for foreign material.

#### **Manawatu:**

A similar system to that outlined for Canterbury, above, operates in these two regions. The base price paid in the Manawatu will be approximately \$220 per tonne for the 1989/90 season.

N.B. For auction prices see Section 1.12.1

**Sweet Corn:** \$100.07 per tonne (Manawatu)  
\$110.50 per tonne (Gisborne)  
\$136.00 per tonne for Super sweet (Gisborne)  
\$107.50 per tonne (Hastings)

#### **Tomatoes**

(Hawkes Bay) \$93 per tonne - top price

N.B. For auction prices see Section 1.12.1

**Zucchini:** \$520 to \$525 per tonne (Manawatu), up 4 to 5% on last year's price of \$500 per tonne

### 1.13 CUT FLOWERS

Auckland Wholesale Market Price - 1989 (to October)

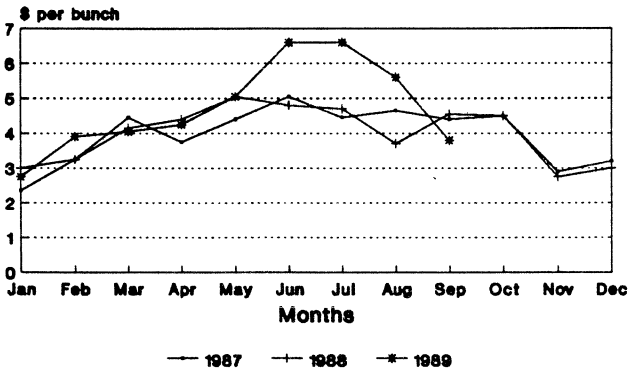
N.B. all prices are \$ per bunch

	Jan	Feb	Mar	April	May	June
Carnations	2.75	3.90	4.05	4.25	5.05	6.60
Gypsophila	2.75	7.55	4.40	4.40	8.15	13.50
Roses	5.35	7.75	6.20	6.70	9.05	9.90

	July	Aug	Sept	Oct
Carnations	6.60	5.60	3.80	3.55
Gypsophila	14.45	10.90	5.70	5.40
Roses	14.75	19.15	20.00	12.25

Source: Horticulture News 1989 issues

Carnation Prices 1987 to 1989



Source: Horticulture News 1989 Issues



## 1.14 FORESTRY

### 1.14.1 Timber Prices Forecast

- (i) Pinus Radiata log export trade - price predictions for 1986 to 2000.  
Base price (in 1985 dollars) for export logs:

<u>Year</u>	<u>Log Type*</u>	<u>FOB Price</u> (1985 \$NZ/m3)
1986	P(pruned)	-
	S1,S2,L1,L2(A grade)	\$110
	S3,L3(B grade)	\$ 82
1990	P(pruned)	\$160
	S1,S2,L1,L2(A grade)	\$120
	S3,L3(B grade)	\$ 90
2000	P(pruned)	\$160
	S1,S2,L1,L2(A grade)	\$112
	S3,L3(B grade)	\$ 84

\* Grades used are provisional only

Source: F.R.I. Bulletin No. 136, 1988

- (ii) In an assessment of the commercial value of New Zealand's State Forests it is estimated that inflation adjusted wood prices in 2010 are likely to be 97% higher than in 1987. By 2030 wood prices are expected to be 125% higher than in 1987. This assessment was carried out for the N.Z. Treasury by the business research group, BERL.

Source: "The Press" November 1988

## **1.15 SUNDRY INCOME**

### **1.15.1 Catchment Commission/National Water and Soil Conservation Authority (NWASCA) Grants**

These grants were of two types and the prime function of both was to provide protection to both water and soil and not to promote the growing of timber. Although new grants are no longer available existing schemes are still eligible. They are administered by the local Catchment Commissions.

#### **Protection Grants**

Any grant approved before the 1987 Budget continues at the percentage as at that time (ranging from 40 to 70 %).

#### **Windbreak Grants**

Catchment boards provide grants to private landowners, with funds allocated by NWASCA who are responsible for approving this type of grant on a regional scale. These grants are only available in areas where the arable soils are classified as being prone to wind erosion.

#### **Effects of Claims**

Prior to the implementation of a scheme, catchment boards draw up an overall farm plan, and the landowner is required to sign a Land Improvement Agreement (LIA) which is usually registered against the land title. This agreement is considered necessary to protect the financial investment by the catchment board and to ensure that management performance levels, as laid out in the overall farm plan, are achieved. Catchment boards levy an administrative service fee which is charged against the grant. Costs not covered by the grant are tax deductible.

### **1.15.2 Refunds of Taxes on Fuels**

#### **Refunds of Petrol Tax**

Motor Spirits Duty (i.e. Petrol Tax) may be refunded if the petrol was used:

- In vehicles licensed as E Class A or E Class B
- In vehicles subject to Road User Charges
- In unlicensed commercial vehicles such as forklifts, or tractors.
- In goods service vehicles (3.5 tonnes or under) used exclusively under a goods service licence.
- In commercial vessels or boats.
- In stationary engines eg. chainsaw, or used commercially for heating, lighting, cleaning etc.

Refund is 8.9 cents per litre of petrol used (N.R.B. portion of the tax).



**SECTION 2**

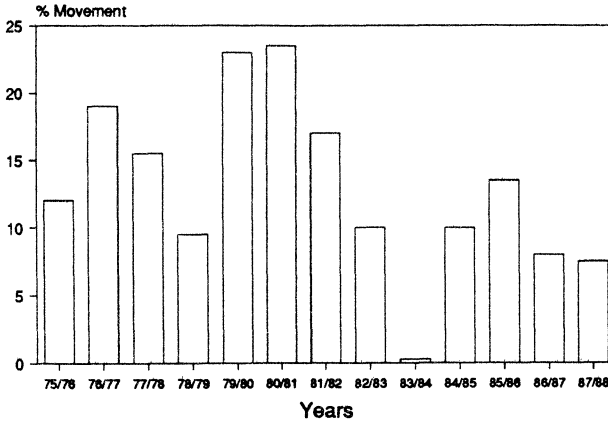
**FARM EXPENSES**



## 2.1 FARM INPUT PRICES

### 2.1.1 Farm Input Price Movements

Sheep and Beef Farm Input Price  
Movements 1975-76 to 1987-88



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

### 2.1.2 Farm Costs

The producer price index for the June 1989 quarter was up 3.7%. The rise in costs for the full year to end of June was 6.9%.

Source: N.Z. Farmer September 1989.

### 2.1.3 Price Discounts

As farmers 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 to the order of 10-15% for many farm goods.

## 2.2 WAGES

### 2.2.1 Dairy Farm Wages (Farms and Stations) (As from 1/7/89)

<b>Permanent (Minimum Wage Rates)</b>	<b>Less than 12 months experience on dairy farms (per week)</b>	<b>Greater than 12 months exper. on dairy farms (per week)</b>
Under 17 years of age	\$124.77	\$132.64
17 years and under 18	\$147.22	\$155.61
18 years and under 19	\$168.79	\$178.36
19 years and under 20	\$190.42	\$201.25
20 years and over	\$205.57	\$217.25

The ordinary hours of work shall be arranged between the employer and the employee, but shall not exceed 108 hours per fortnight. Within every 14 days, one day shall be free of work and 3 days shall be worked as part days, and where possible, the employer shall program free time to coincide with weekends. A full day shall not exceed 9 hours and a part day shall not exceed 6 hours.

No employer shall charge any employee for board and lodging. Where the employer does not provide board or lodging, the employee shall be paid an extra \$40.00 per week.

The minimum hourly rate to be paid to permanent workers shall be 1/49th of the weekly rate and the casual rate for a person not guaranteed a 40 hour week shall be 1/40 the permanent weekly rate.

Every worker shall, after each year's continuous employment by one employer, be entitled to 3 weeks paid holiday consisting of 14 days taken consecutively and 7 days which may be taken for one or more days or part of a day.

After 7 years continuous service, a fourth week's holiday may be taken.

Special holidays of;

- 2 weeks may be taken after 15 years continuous service
- 3 weeks may be taken after 25 years continuous service
- 4 weeks may be taken after 35 years continuous service
- 5 weeks may be taken after 45 years continuous service

Workers requesting to attend Land Settlement courses are allowed from 3 weeks leave without pay per annum and up to a maximum of 6 weeks, provided normal farming operations are not affected.

#### **Training Incentives**

Workers are entitled to additional payments if they produce suitable evidence of qualifications:

1st qualifying T.C.B. in farming OR  
qualifying assessment tasks

45 tasks

\$6.00/week

**Prices Exclude GST**

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2nd qualifying T.C.B. in farming OR T.C.B.farming qualifying assessment OR T.C.B. Certificate in Basic farming practice	\$10.00/week
Trade Certificate in farming	\$15.00/week
Trade Certificate in Farm Management	\$25.00/week

N.B. These allowances do not accumulate.

**Wet Weather Gear Allowances**

For the purpose of purchasing and maintenance of adequate wet weather gear, an employee shall be paid an additional allowance of \$4.00 per week.

**Vehicle Use**

Where a worker uses his/her own motor vehicle on the employer's business, he/she shall be reimbursed an allowance at the rate of not less than 45.00 cents per kilometre. In the case of a motor cycle being used, the reimbursement shall be not less than 23.00 cents per kilometre.

**2.2.2 Sheep, Beef, and Cropping Farm Wages (Farms and Stations) as at 1/7/89**

<b>Permanent (min. rates of wages)</b>	<b>Less than 12 mths months exper. on farms (per week)</b>	<b>Greater than 12 months exper. on farms (per week)</b>
Under 17 years of age	\$118.38	\$125.08
17 years and under 18	\$138.11	\$145.95
18 years and under 19	\$162.23	\$171.42
19 years and under 20	\$179.75	\$189.93
20 years and over	\$196.10	\$206.15

Service - After 5 years' current continuous service with the same employer a worker shall be paid, in addition to the rates of pay prescribed, an allowance of \$10 per week.

Where a farm worker has completed 5 years in the industry, he shall, in addition to the rates of pay prescribed, be paid an allowance of \$5 per week.

Where a farm worker has completed 10 years in the industry, he shall, in addition to the rates of pay prescribed, be paid an allowance of \$15 per week.

These allowances are not cumulative.

Ordinary hours shall not exceed 90 per fortnight where a worker exceeds the stated hours above he/she shall be paid at the rate of time and one half of the hourly rate. This does not apply to station cooks who shall work a six-day week and be entitled to four consecutive days off.

Where the employer does not provide board and lodging the employee shall be paid an extra \$40.00 per week.

In the case where the employee is provided with a house only, the employee shall be paid an extra \$22.53 per week.



The minimum hourly rate to be paid to permanent workers shall be 1/45th of the weekly rate.

**Casual:** The rates of pay for casual workers are as follows:

	Per hour without <u>Rations</u>	Per hour with <u>Rations</u>
Under 18 years of age	\$4.89	\$4.26
18 years and over	\$5.99	\$5.34

**Training Incentives, Wet Weather Gear Allowance and Vehicle Use**  
Refer to Section 2.2.1

**Dog Expenses**

Employer shall pay normal registration and hydatids control fee, veterinary expenses which are work related and reasonable for the employee's dog.  
The number of working dogs shall be determined by the employer.

**2.2.3 Shearers' and Shedhands' Wages (17/10/89)**

N.B. These are NOT contractors rates (see Section 2.3.5)

Sheep - other than Corriedale, Halfbred and Merino:

Adult Sheep -

- (i) The rate of shearing adult sheep by machine shall not be less than \$75.00 per hundred.
- (ii) The rate of shearing adult sheep by machine but with bellies left on shall not be less than \$72.52 per hundred.

Lambs - The rate for shearing lambs shall be not less than \$67.47 per hundred.

Rams - The rate for shearing mature rams by machine shall be double adult rates.

Sheep - Corriedale, Halfbred and Merino:

The rate for shearing by machine shall be determined by increasing the rate prescribed for adult sheep, as (i) above, i.e.\$75.00, by the following percentages as appropriate :

- (i) Halfbred, Corriedale, ewes and hoggets 5%
- (ii) Quarter-bred, Merino ewes and hoggets 15%
- (iii) Merino wether hoggets 22%
- (iv) Adult Merino wethers 40%
- (v) All other finewool wethers 33.5%

Blade Shearing - Blade rates -

- (i) Fully bellied, fully crutched \$105.75 per 100
- (ii) Fully crutched \$113.15 per 100
- (iii) Full woolled \$118.08 per 100

All sheep with metal ear tags, other than stud sheep, are to be shorn at a premium of \$5.00 per 100.

All adult and lambs with tails, are to be drafted out and shorn at a premium of \$4.00 per 100 shorn.

The shearing rate for double fleeced sheep, stud sheep, stud lambs, hogget rams and rams castrated after maturity is 1.5 times the base rate, i.e. \$112.50 per 100.  
 The shearing rate for other rams is double base rate, i.e. \$150.00 per 100.

A shearer shall be reimbursed 42.87 cents/kilometre travelled if he provides his own transport on his employer's request.

<u>Crutching Rates</u> (minimum) per 100	<u>\$/100</u>
Full belly, full crutch, flank and eye wig	\$37.10
Full belly, full crutch, and flank	\$35.25
Full belly, full crutch, eye wig	\$33.39
Full belly, tail crutch, eye wig	\$27.21
Full belly, full crutch	\$31.42
Full belly, tail crutch	\$25.23
Full belly, full crutch and eye wig - Lamb	\$30.05
Full belly, full crutch, lamb	\$28.27
Half belly, full crutch, etc.	\$27.70 to \$33.39
Full crutch etc.	\$20.48 to \$24.74
Tail crutch, etc.	\$16.70 to \$20.69
Eye wig only	\$18.55

The same allowances in lieu of rations and accommodation, and for travel as for shearers apply for crutchers.

Shedhands, Pressers, Dagers and Cooks' Rates (minimum)

Shedhands with no previous experience in the shearing industry shall be paid not less than \$7.31 per hour. Shedhands with 120 hours or more experience, shall be paid not less than \$8.72 per hour. Shedhands holding a wool handling certificate shall have their hourly rate increased by 70 cents. Dagers shall be paid not less than \$9.89 per hour, or \$21.92 per 100.

Pressers shall be paid not less than \$9.89 per hour.

For cooking for 18 persons and under, cooks shall be paid not less than \$84.04 per day. For over 18 persons a cook's assistant shall be engaged and shall be paid not less than \$8.55 per hour.

The same allowances in lieu of rations and accommodation and for travel as for shearers apply to these workers.

All workers reporting to the shed shall be paid a minimum of 4 hours pay, except where more than 4 hours are worked. This is applicable only if normal shearing commences and the sheep are not deemed too wet to shear or crutch. If the sheep are deemed to be too wet by secret ballot, a minimum payment of 2 hours will be paid except where the gang is living on the farm, and, having elected to begin work late in the day, less than 4 working hours remain.

**2.2.4 Market Garden Workers**  
 (As from 20/7/89)

<b>Permanent Workers</b>	<u>Per Week</u>	<u>Per Hour</u>
Foremen/Forewomen	\$304.71	\$7.62
Leading Hands	\$278.47	\$6.96
Adults 20 years and over	\$267.70	\$6.69
Youths 19 years and under 20	\$227.38	\$5.68
18 years and under 19	\$192.39	\$4.81
17 years and under 18	\$164.12	\$4.10
16 years and under 17	\$139.92	\$3.50
Under 16 years	\$118.36	\$2.96

Piecework - where workers are engaged on piecework they shall be notified of the piece rate to be paid before commencing that work. Piecework shall be paid at such rates as will enable an ordinary capable worker to earn the above rates provided for, plus 10%.

A worker who produces to his employer evidence that he has obtained a certificate in Horticultural Practice in either outdoor vegetable production or glasshouse vegetable production shall receive an additional \$12.38 per week.

An allowance of 41 cents per hour shall be paid to a worker while engaged in mixing and applying chemical sprays and fumigants.

Ordinary hours of work shall not exceed 40 per week, or 8 per day to be worked within five and a half days, Monday to Saturday noon, inclusive. All work done on holidays, or outside, or in excess of the hours specified is overtime and is to be paid at time and a half for the first three hours, and then at double time rates thereafter. Work on Saturdays after noon or on Sundays shall be paid at double rates.

<b>Casual Workers</b>	<u>Per Hour</u>
Adults	\$6.22
Youths	
19 years and under 20	\$5.30
18 years and under 19	\$4.51
17 years and under 18	\$3.84
16 years and under 17	\$3.26
Under 16 years	\$2.78

Piecework rates as above.

Workers who work only on Saturdays shall be paid at ordinary rates for first 8 hours, 1.5 times ordinary rate for next 3 hours and at double rates thereafter. Workers engaged on a Saturday who have not worked 36 hours in the preceding five days, shall be paid at ordinary rates for the first 4 hours, 1.25 times ordinary rates for the next four hours, at 1.5 times for the next 3 hours and at double rates thereafter.

Work done on Sunday or on statutory holidays shall be paid for at double rates.

**Harvesters****Per Hour**

Adults		\$6.49
Youths	19 years and under 20	\$5.52
	18 years and under 19	\$4.70
	17 years and under 18	\$4.01
	16 years and under 17	\$3.44
	15 years and under	\$2.87

Piecework rates as above.

Overtime shall be paid at 1.5 times ordinary rates for the first 4 hours and double rates thereafter for time worked in excess of:

8 hours in any day; 40 hours in any week; 5 days in any week.

Time worked on Sundays is to be paid at ordinary rates unless the worker has completed 32 hours during the preceding six days in which case time worked shall be paid for at 1.5 time rates.

## 2.3 ANIMAL EXPENSES

### 2.3.1 Animal Health

#### **Dairy Cows**

Total animal health costs typically range from \$22 to \$28 per cow per year depending on the farm (locality, herd size etc).

For details see individual items in this section.

#### **Sheep and Cattle**

Total animal health costs typically range from \$1.20 to \$1.50 per stock unit per year depending on the farm, season etc.

For details see individual items in this section.

**Contract Dipping Costs** - see section 2.5.3

**Dips, Sprays and Dressings** - see also cost examples later in section.

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<b>Coopers:</b>		
Bactas	500 g	\$ 20.93
Banmag	500 ml	\$ 22.00
Click	10 litre	\$200.00
Combat	20 litre	\$429.65
Decacide	5 litre	\$125.09
Diazotas 20%	20 litre	\$131.82
Endurance	5 litre	\$183.50
Grenade	5 litre	\$201.82
Trigon DFF	5 litre	\$296.89
Strike	5 litre	\$302.22
Supreme DFF	10 litre	\$554.54
Vetrazin	2 litre	\$132.44
Warbex	5 litre	\$192.89
Wipe-out	10 litre	\$177.78
<b>Nu Farm:</b>		
Redene Diazinon 40	10 litre	\$184.80
Redene Zinc Sulphate (Footrot)	25 kg	\$ 26.65
<b>Fil:</b>		
Formalin	200 litre	\$373.24
Flystrike dressing	350 gm	\$ 7.88
<b>Young's Animal Health NZ Ltd:</b>		
Sheep Dips -	5 Litres	20 Litres
Seraphos 500 (Fly & lice dip)	\$142.05	\$520.00
Seraphos 1250 (fly & lice)	\$260.00 (10 litres)	\$449.00
Cypor Sheep & Goat (lice pouron)	\$110.95	\$366.00

**Prices Exclude GST**

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Cattle Sprays - Destruct	5 litres	\$185.00
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**Anthelmintics - see also cost examples later in section.**

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<b>Coopers:</b>		
Challenge Levamisole	20 litre	\$122.73
Nilverm Oral	20 litre	\$128.89
Nilverm Low Dose	10 litre	\$237.50
Panacur Min	20 litre	\$168.00
Systemex (sheep)	20 litre	\$244.44
Systemex Low Dose Cattle Drench	2.5 litre	\$124.44

**Young's Animal Health (NZ) Ltd:**

Rycoben Cattle & Deer drench	2.5 litres	\$156.60
Rycoben Sheep & Lamb	20 litres	\$207.00
Rycozole (Levamisole)	20 litres	\$ 92.00

**Ancare:**

Benzicare HI-MIN	20 litres	\$150.00
Levicare	30 litres	\$167.00
Levicare HI-MIN	30 litres	\$188.00
Levitape	5 litres	\$ 87.25
Fenben HI-MIN	30 litres	\$294.00

**Professional Veterinary Distributors:**

Solvam - Levamisole white drench	3 x 5 litres	\$ 75.00
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**MSD Agvet:**

Ivomec Liquid (Sheep)	20 litre	\$604.44
Ivomec Injection (Cattle)	500 ml	\$277.27
Ivomec Oral (For Cattle)	1 litre	\$208.18
Ivomec Injection (For Pigs)	200 ml	\$127.56
Ivomec Pour On	2.5 litre	\$302.22
Eqvalan Paste (horses)	1 syringe	\$ 16.76
Valbazen	25 litre	\$284.44

**Nu Farm:**

Mineralised Telmin RLT	20 litre	\$324.00
Telmin RLT	25 litre	\$375.00

**Bell-Booth:**

Nutrimol	20 litre	\$145.00
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**Rural Research Ltd:**

Wormblock (stock-lick block for worm control)		\$ 36.15
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**Sheep Drenching Costs - Examples:**

<u>Type of Animal</u>	<u>Weight Range</u>	<u>Dose Rate</u> <u>(Nilverm)</u>	<u>Cost (c) at</u> <u>0.64c/ml</u>
Sheep	Up to 22kg	4.0 ml	2.58
	23 - 35kg	6.0 ml	3.87
	over 35 kg	8.0 ml	5.16

		<u>Dose Rate</u> <u>(Ivomec Liquid)</u>	<u>Cost (c) at</u> <u>3.02c/ml</u>
Sheep/Goats	9 - 12 kg	3 ml	9.07
	13 - 16 kg	4 ml	12.09
	17 - 20 kg	5 ml	15.11
	21 - 24 kg	6 ml	18.13
	25 - 28 kg	7 ml	21.16
	29 - 32 kg	8 ml	24.18
	33 - 36 kg	9 ml	27.20
	37 - 40 kg	10 ml	30.22
	41 - 50 kg	12.5ml	37.78
	51 - 60 kg	15 ml	45.33
under 9 and over 60 kg 1ml per 4kg @ 3.02c/ml			

**Cattle/Deer/Horse Drenching Costs -Examples:**

<u>Type of Animal</u>	<u>Weight Range</u>	<u>Dose Rate</u> <u>(Panacur)</u>	<u>Cost (c) at</u> <u>0.84c per ml</u>
Cattle/Deer/Horse	up to 40 kg	12.0 ml	10.08
	40 to 100 kg	30.0 ml	25.20
	100 to 300 kg	90.0 ml	75.60
	over 300kg	15.0 ml/50 kg	

		<u>Dose Rate</u> <u>(Ivomec Injection)</u>	<u>Cost (c) at</u> <u>55c per ml</u>
Cattle	0 to 50 kg	1 ml	55.5
	51 to 100 kg	2 ml	110.9
	101 to 150 kg	3 ml	166.4
	151 to 200 kg	4 ml	221.8
	201 to 250 kg	5 ml	227.3
	251 to 300 kg	6 ml	332.7
	over 300kg	1ml/50 kg	

**Drench/Dip Price Comparison (Cattle)**

Source: "Farmlink" March 1989.

Assumptions: 150kg Liveweight Calf  
 Warbex pour on used for external parasite control except for Ivomec  
 which controls both Internal and external parasites.

**Prices Exclude GST****B-12**

<u>Drench</u>	<u>Drench Price</u> \$/Litre	<u>Drench</u> c/dose	<u>Drench + Pour On</u> c/dose
Citarin-L	\$ 7.43	22.51	67.64
Levicare	\$ 7.75	23.48	68.61
Nilverm	\$ 9.68	29.33	74.46
Levicare Hi Mineral	\$ 9.75	29.55	74.68
Panacur	\$ 11.80	42.70	87.83
Synanthic	\$ 14.60	44.24	89.37
Synanthic Mini-dose	\$ 59.20	44.51	89.64
Systemex	\$ 16.47	49.90	95.03
Ivomec Pour-on	\$136.00	204.82	204.82
Ivomec Injectable	\$573.34	229.30	229.30

### Vaccines

BI = Blackleg, MO = Malignant Oedema, Tet = Tetanus, PK = Pulpy Kidney, BD = Black Disease.

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<b>Coopers:</b>		
Nilvax S (PK, BI, MO, Tet, BD)	500 ml	\$ 27.56
Multine 5	500 ml	\$ 23.06
PK Tet	500 ml	\$ 28.29
PK	500 ml	\$ 18.05
Lamb vaccine	500 ml	\$ 29.63
<b>Young's Animal Health (NZ) Ltd:</b>		
RYVAC PK	6 x 500 ml	\$14.15
RYVAC 2	6 x 500 ml	\$20.70
BLMO	12 x 200 ml	\$ 8.40

### Vaccination Costs - Example:

<u>Type of Animal</u>	<u>Weight Range</u>	<u>Dose Rate</u> (Nilvax)	<u>Cost (c) at</u> <u>5.5c/ml</u>
Hoggets	20 to 24 kg	3.5 ml	19.3
Sheep	over 25 kg	4.0 ml	22.0

### Productivity Improvers - see Section 2.3.6

### Disinfectants

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<b>Coopers:</b>		
Formalin	200 litre	\$308.62
Savlon	5 litre	\$ 23.64



**Bloat Control**

<u>Product</u>	<u>Unit Size</u>	<u>Price</u>
<b>Coopers:</b>		
Blogon	200 litre	\$764.44
Bloatbloc	18 kg	\$ 44.44
<b>Nu Farm:</b>		
Bloataid Dual	200 litre	\$1104.00
Bloataid Super	200 litre	\$1188.00
<b>Rural Research Ltd:</b>		
Blotliq (molasses lick block)		\$ 32.70
<b>Klenzade:</b>		
		<u>Trade Price</u>
Bloatenz Two in One	200 litre	\$ 875.00
Bloatenz plus	200 litre	\$1060.00
<b>Ancare:</b>		
Blofix	2 syringe pk	\$ 58.00
Blodrench	200 litre	\$778.00
Blocare 4511	200 litre	\$991.00
Blotoff	200 litre	\$779.00
<b>Agmax Industries:</b>		
Marlophen 89 Bloat drench	20 litres	\$ 88.89
	200 litres	\$666.67
<b>BP Oil NZ Ltd:</b>		
Self-emulsifying Anti-bloat oil light (spraying)		210 Litre Drum
Anti-bloat oil No.2 (light)	Oral Drenching	\$438.90
Anti-bloat oil No.6 (heavy)	Oral Drenching	\$470.40
Flanklick		\$520.00
		\$438.90
<b>Professional Veterinary Distributors:</b>		
Protect Bloat Drench	115 litres	\$625.00
Magox Drench Powder		per tonne \$925 to \$1000

**Metabolics**

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<b>Coopers:</b>		
Boromag Plus	450 ml	\$ 7.39
Borophos	450 ml	\$10.15
Calcium Borogluconate	450 ml	\$ 5.10
Sulphamag	350 ml	\$ 3.14
Calcium Borogluconate 50%(sheep)	100 ml	\$ 3.13

**Prices Exclude GST****B-14**

## **Animal Health Equipment**

### Product

#### **Peta Enterprises:**

Bloat Mix Dispenser	24 hour	\$ 68.57
	12 hour x 2	\$146.40
Zinc Dispenser		\$113.17
Multi-purpose Solid Dispenser (except zinc)		\$122.77

#### **Wesco Farm Products:**

Westergun Pole Syringe		\$135.00 to 145.00
Injecto-stick continuous feed multi-dose syringe		\$235 to \$250
Sesi nylon 10cc syringes		Each \$6.25
Monoject syringes		Each \$1.30

#### **Coopers:**

Nilverm Drench Gun	12.5 ml	\$ 67.34
Drench Back Pack	5.0 litre	\$ 21.33
P20 Drench Gun Auto	20.0 ml	\$105.03

#### **Engineering Dynamics:**

Pneumedic Power Drenching Systems -		
Pneumedic Un-metered Drenching System		\$1389.00
Pneumedic Electro-Dose Metering Head		\$ 585.00
Pneumedic Handguns		\$ 69.50
A full metered unit		\$2891.00

#### **Agrifeeds Limited:**

Agrifeeder for liquid supplements 125 and 250 kg		\$106 to \$173
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#### **Shoof International:**

Dial a dose drench gun		\$ 55.56
Cattle shoof - all models		\$ 20.40
Goat and sheep shoof		\$ 6.18

#### **Veterinary Fees**

Veterinary club charges are varied, depending on the club.

A typical membership fee would be \$25.00 to \$35.00.

Consultation	Minimum farm visit	\$20.44
	Routine work and consultation	\$55.11/hr
Ram Bleeding - visit fee plus		\$4.22/hd
Palpation - visit fee plus		\$0.67/hd
Cow Pregnancy Testing - visit fee plus		\$1.51/hd
Surgical Fee (Applies to Farm work)		\$ 125.00/hr
Deer TB or Velveting \$82/hr, plus		
- Avarian TB		\$0.55/hd
- Bovine TB		\$0.20/hd
plus equipment at		\$12 to \$25.00

**Dog Registration and Hydatid Control Fee**

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

Manawatu County Council	\$29.33
plus \$10.67 if paid after 1 May.	
Selwyn District Council	\$38.22

**2.3.2 Breeding Expenses and Sire Purchase****Artificial Breeding Fee**

Livestock Improvement Corporation (South Island)-1989/90:

Premier Sires (Includes Semen)	Per Cow Rate	Per Insemination Rate	
		Spring	Non-Spring
First 100 Cows	\$16.04	\$13.36	\$15.36
Second 100 Cows	\$15.14	\$12.61	\$14.50
Third 100 Cows	\$14.58	\$12.14	\$13.96
Fourth 100 Cows	\$14.13	\$11.77	\$13.54
Thereafter	\$13.12	\$10.92	\$12.56

**Nominated Service (Excludes Semen)**

Semen price range from \$3.50 per dose for beef breeds to \$10.00 per dose for dairy breeds.

Minimum of 20 doses per pack.

Service Fee per insemination:

		Spring	Non-Spring
First	100 cows	\$6.83	\$7.85
Second	100 cows	\$6.25	\$7.19
Third	100 cows	\$5.78	\$6.65
Fourth	100 cows	\$5.35	\$6.15
Thereafter	100 cows	\$4.67	\$5.37

**Herd Testing Charges (South Island)-1989-90**

NZ Dairy Boards Livestock Improvement Corporations (SI) Fees:

**Herd Testing Fees (Includes Herd Records Service)**

Standard Herd Recording (Includes one Staff member)

Tests Per Year	1 test	2 tests	4 tests	6 tests	9 tests
50 Cow Herd	\$360	\$502	\$937	\$1302	\$1799
Each Add. Cow	\$5.62	\$8.24	\$13.99	\$17.25	\$20.27
100 Cow Herd	\$641	\$914	\$1636	\$2165	\$2183
Each Add. Cow	\$4.41	\$5.86	\$10.23	\$13.12	\$16.36
200 Cow Herd	\$1082	\$1500	\$2659	\$3477	\$4449
Each Add. Cow	\$1.86	\$2.65	\$4.79	\$6.38	\$8.38

Additional labour units @ \$109.00 per labour unit per test

**Self Sample Herd Recording (Excludes Staff Members)**

Tests Per Year	1 test	2 tests	4 tests	6 tests	9 tests
50 Cow Herd	\$320	\$447	\$796	\$1048	\$1354
Each Add. Cow	\$5.01	\$6.36	\$10.88	\$13.57	\$16.24

Prices Exclude GST

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100 Cow Herd	\$571	\$765	\$1340	\$1727	\$2166
Each Add. Cow	\$4.04	\$5.28	\$9.16	\$11.62	\$14.29
200 Cow Herd	\$975	\$1293	\$2256	\$2889	\$3595
Each Add. Cow	\$1.82	\$2.61	\$4.69	\$6.25	\$8.21

If labour units required: \$109.00 per labour unit per test

Note: The minimum charge is the fee charged for 50 cows.

**Somatic Cell Count Fees**

Tests Per Year	1 test	2 tests	4 tests	6 tests	9 tests
Fee per cow	\$ 0.70	\$ 1.20	\$ 2.00	\$ 2.70	\$ 2.70

**Herd Records Service**

Clients who use herd testing are automatically enrolled to use Herd Records. The herd record charge is incorporated into the herd testing fee.

<u>Clerical Assistance:</u>		<u>With:</u>	<u>Without:</u>
First	100 Cows	\$2.00 / cow	\$3.00 / cow
Second	100 Cows	\$1.50 / cow	\$2.25 / cow
Third	100 Cows	\$1.00 / cow	\$1.50 / cow
Over	301 Cows	\$1.00 / cow	\$1.25 / cow

Note these charges are reduced by \$0.75 / cow if cows have been inseminated by the Livestock Improvement Technicians.

**Animal Plan**

(incorporates Sheep/Beef/Goats/Deer recording systems)

M.A.F.'s Animal Plan Bureau Clients

- Access fee (1st year only) \$100 per flock/herd
- Additional flocks/herds (1st year only) \$100 per flock/herd
- Back data - included
- Annual Licence Fee \$ 50 per flock/herd
- Processing Charge \$1.60 per female
- Administration Fee \$ 60 per flock/herd

On-Farm Packages

- PC Software \$2000
- Additional flocks/herds \$100 per flock/herd
- Back data - included

**Sire Replacement**

Rams

The following figures are some approximate values for flock rams.

Dorset Down	\$200 to \$350	Corriedale	\$260 to \$350
South Dorset Down	\$200 to \$250	Perendale	\$150 to \$250
South Suffolk	\$300	Border Leicester	\$200 to \$300
Suffolk	\$300	Borderdale	\$150 to \$300
Romney	\$350	Coopworth	\$200 to \$300

See note - next page

Note:

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

### Bulls

Beef bulls vary much in price depending on qualities desired, age etc. Normally in the range of \$1200 to \$5000.

### Stags

The average price for breeding stags at present seems to be in the region of \$2000 to \$5000 for red deer. Some very top producing stags have been sold for up to \$50,000.

### Bucks

Pure bred Angora - Average price paid in December 1989 for mature stock ranged from \$70 to \$250 depending very much on the blood lines and desired features.

Cashmere - \$100 to \$250 with some selling for up to \$2,800 (suitable for Cashgora breeding).

## 2.3.3 Dairy Shed Expenses

### **Shed Expenses per Cow**

Dairy shed budget figures should ideally be based on farmer estimates and historical financial information. 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 \$10 to \$15 per cow per year. This does not include animal health (see Section 2.3.1) or electricity (see Section 2.6.1)

### **Dairy Ointments, Soaps and Teat Sprays**

Klenzade:

<u>Product</u>	<u>Unit Size</u>	<u>Trade Price</u>	
		North Is	South Is
Blu Gard	200 litre	\$1200.00	\$1237.00
Teat Guard plus	100 litre	\$ 604.00	\$ 620.00

Nu Farm:

		<u>Retail Price</u>
Redene Teat Dip and Spray	200 litre	\$ 987.56
Redene Teatspray Plus	20 litre	\$ 160.00
Redene Udder Cream	8 kg	\$ 62.22

Ancare:

Teatcare Plus	200 litre	\$ 977.00
Teatcare	200 litre	\$1094.00

Coopers:

Hibitane	17 kg	\$ 98.30
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**Prices Exclude GST**

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**Detergents and Sanitisers**

<b>Agmax Industries:</b>	20 Litre	200 litres
Multisan 300 Acid Detergent/Sanitizer	\$66.66	\$511.11
Multiwash 900 Alkaline Detergent	\$57.77	\$422.22

**Nu Farm:**

Redene Iodophor Sanitiser	200 litre	\$ 714.67
Redene Lo-Count Acid	200 litre	\$ 857.77
Redene Lo-Count Alkali	20 kg	\$ 86.67
Redene Milkstone Remover HAF	20 litre	\$ 112.00
Redene Non Ionic Rinse	20 litre	\$ 64.98

Sth Is      Nth Is

**Klenzade: (Trade Prices)**

Klenz Iodophor - sanitizer	200 litre	\$797.00	\$780.00
Iodovat - kold klenz	200 litre	\$973.00	\$950.00
Q Klenz - sanitizer and cleanser	200 litre	\$855.00	\$836.00
Low Foam Q Klenz	200 litre	\$855.00	\$836.00
Klenz All Temp	200 litre	\$855.00	\$836.00
Klenzphos H.C.milk stone remover	200 litre	\$902.00	\$880.00
Stainless Steel Detergent	20 kg	\$ 83.00	\$ 80.00
Tri Klenz - alkaline cleaner	20 litre	\$ 85.00	\$ 79.00
Kleer Klenz - alkaline cleaner	20 kg	\$ 81.00	\$ 79.30
Liquid Super Klenz	20 litre	\$ 81.00	\$ 79.30
Klenzade Non-ionic Rinse	200 litre	\$558.00	\$540.00

Note: Klenzade (ECOLAB) have a refund on returned empty containers in good condition, \$60 per 200 litre plastic drum.

**Ivon Watkins Dow:**

Mycorinse detergent	180 litre	\$ 790.00
Low Foam Mycosan dairy sanitizer	180 litre	\$ 969.00
Mycosan S dairy sanitizer	180 litre	\$ 969.00

Note: \$60 refund on return of drum in good condition.

**Dairy Shed Equipment****Milfos International Ltd:**

Claws - complete	\$118.17 to \$123.15
Teat cups (each)	\$13.58 to \$15.22
Pump diaphragms (each)	\$21.60
Liners (each)	\$3.70
Inline filters 76 to 102mm x 550 to 678mm	\$294 to \$387
Inline filter socks \$18.40/100 to \$42.27/100	
Vacuum regulator	\$185.00 to 216.50
Pulsators	\$159.54
Milk cooler	\$559.09 to 163.18
Vat washers	\$79.50 to \$158.91

Alfa-Laval:		
Cup Removers only		\$216.50
Liners		from \$ 3.95
Shells		\$ 19.00
Oil Recirculating Mufflers		\$ 925.00
Recirculating Washing System 18 Unit		\$2320.00
Teat Sprayers		\$ 595.00
Vacuum Pumps	- Masport Major	\$1262.00
	- Masport Master	\$1404.00
	- Masport Super	\$1706.00
Claws - Harmony		\$134.00
Teat Cups		\$19.00
HP102 Pulsator		\$220.00
EP100 Pulsator		\$205.00
Vacumaster regulator		\$260.00
Dosatron Marketing:		
Dispenser units	- Dosatron 1501 0.2% - 1%	\$985.00
	- Dosatron 1005 2% - 5%	\$1485.00

#### Herringbone Milking Machines (Pulsation System Only)

Alfa-Laval:		<u>HP 102</u>	<u>EP 100</u>
Highline	10 Unit	\$ 5090.00	\$ 6487.00
	14 Unit	\$ 6997.00	\$ 8868.00
	18 Unit	\$ 8910.00	\$10075.00
	20 Unit	\$ 9863.00	\$12476.00
	24 Unit	\$11770.00	\$15283.00

Complete with rubberware and milking equipment

#### 2.3.4 Feed and Nutrition

##### Milk Replacers

20 kg bags for calf rearing	\$52.00 to \$55.00
Ewe milk replacer	\$3.50 to \$5.50/kg

##### Supplements

###### Agmax Industries Limited:

Agmax stockfood supplement	200 litres	\$377.78
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###### Agrifeeds Limited: (ex Tauranga)

Promag/Himag - cattle	250 kg drum	\$198.00
Equestri-feed - horses	250 kg drum	\$260.00
Molasses - feedgrade/blackstrap	250 kg drum	\$127.00 to \$135.00

Prices Exclude GST

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**Bomac Laboratories:**

	<u>Pack</u> <u>Size</u>	<u>Price /</u> <u>pack</u>
Calphos (calcium supplement for horses)	2.5 kg	\$ 18.99
EquiPLEX (liquid B grp vit. for horses)	2.0 ltr	\$ 15.97
Feramo H (vit./mineral suppl. for horses)	2.5 kg	\$ 20.69
Ironcyclen Liquid (for horses)	1.0 ltr	\$ 11.44

**Rural Research Ltd:****Solid Molasses Stock-lick Blocks -**

Biuret Blok molas	- feed block molasses	\$27.25
Zinc molas	- feed block with zinc	\$31.40

**Salt Blocks****Summit Salt Blocks (20 kg blocks)**

Multi Mineral		\$11.80
Copper/Mineralised/Salt/Magnesium		\$11.50 to \$13.30
Loose Mixes	Multi mineralised salt mix	\$26.60
(40kg Bags)	Magnesium salt mix	\$31.60

**Concentrates**

Note : Several product ranges included.

**NRM Feeds Ltd: (Christchurch)**

	<u>Rate per Tonne</u> <u>(bulk) Delivered</u>	<u>Per 40 kg bag</u> <u>(ex store)</u>
Calf early wean crum	\$351.90	\$ 16.00
Hi Energy Dairy Pellet	\$310.80	\$ 14.30
Sheep Nut		\$ 15.55
Deer Pellet	\$341.90	\$ 15.55
Goat Pellet	\$341.90	\$ 15.50
Horse Pellets		\$15.90 to \$17.70
Rabbit Pellets	\$390.40	\$ 17.40

**Superstok Feeds:**

	<u>Bulk Per Tonne</u>	<u>40 kg Bag</u>
Dairy Crumbles	\$388.25	\$15.53
Sheep Nuts	\$386.75	\$15.47
Deer Nuts	\$404.75	\$16.19
Horse Pellets	\$439.50	\$17.58
Rabbits Ration No. 1	\$450.25	\$18.01

**Poultry Feeds**

Bulk feed prices are unavailable for publication.

NRM Feeds Ltd: Layer Pellets (High Energy) 40 kg \$17.10



**Pig Rations**

NRM Feeds Ltd:

Pig creep crumbs	\$699.80	\$ 29.85
Pig weaner care pellets	\$517.20	\$ 22.55
Pig flexiwean pellets	\$503.80	\$ 22.05
Pig grower care pellets	\$455.20	\$ 20.10
Pig rapid grow pellets	\$423.60	\$ 18.85
Pig early finisher pellets	\$393.20	-
Pig econo bacon pellets	\$380.10	\$ 17.50
Pig breeder pellets	\$370.20	\$ 16.70

Supastock Feeds:

	<u>Bulk \$/Tonne</u>	<u>40kg sack</u>
Pig Creep	681.25	27.25
Pig Weaner	527.75	21.11
Pig Grower	524.50	20.98
Pig Finisher	488.50	19.54

Pzifer:

Creep premixes	25 kg (5x5kg)	\$109.88 to \$117.52
Weaner/Grower Premix		
Pfingrow-30	25 kg (10x2.5kg)	\$201.49
Grower/Finisher Premix		
Pfipork-60	25 kg (10x2.5kg)	\$143.54
Tasmix grower/finisher	25 kg bulk	\$154.76
Breeder		
Pfbred-20	25 kg (10x2.5kg)	\$212.06
Tasmix Hi-breed Sow	25 kg bulk	\$167.29
Tasmix Pig Breeder	25 kg bulk	\$105.65

Pig feed Components:

Meat and bone meal - average \$430 per tonne

Skim Milk powder - \$1700 to \$2100 per tonne depending on quality

Barley meal - Most farmers buy barley and grind it themselves. Current Canterbury price \$280 per tonne (less if direct from grain grower) Add 25% if ready ground.

Dried blood - \$750 per tonne average

Fish meal - \$850 to \$1000 per tonne

Mineral, vitamin and salt mixes

**Note:**

As a guide the average pig ration would be formulated as follows:

(Figures are percentages of total ration)

	Weaner	Grower	Breeder
Barley Meal	76.0	82.5	86.0
Meat & Bone Meal	10.0	10.0	12.5
Skim Milk Powder	5.0	-	-
Dried Blood	4.5	5.0	1.0

**Prices Exclude GST****B-22**

Fish Meal	4.0	2.0	-
Minerals/Vitamins	0.5	0.5	0.5

### Hay and Straw

Depends on area, season and quality.

1989/90 prices in Canterbury for average to good quality bales are approximately as follows:

		Conventional	Big Round Bale
Hay:	Lucerne	\$4.00	\$50.00 to \$60.00
	Meadow	\$3.00	\$45.00
Straw:	Pea	\$3.00	\$45.00
	Ryegrass	-	\$15.00 (15 bale equiv.)

In the Taranaki area meadow hay was selling for \$2.50 as standing hay and \$4.00/bale off the baler. Large round bales were selling around \$45 to \$54.

In the Waikato standing hay was selling for between \$2.50 and \$3.20 per bale.

For contract hay baling see Section 2.5.1.

### Grazing Fees

Payment for grazing varies according to the class and age of livestock, the time of year, seasonal conditions and the district.

Current rates in Canterbury for 1989/90 are approximately 15c to 25c/ewe/week for sheep, and \$1.00 to \$3.00/head/week for breeding cows. These figures are much reduced from last year, due to a relative abundance of feed.

Dairy heifers - up to \$3.00/week; wintering dairy cows - up to \$6.00/week.

### 2.3.5 Shearing and Shearing Shed Expenses

See also, Section 3.2 Sheep Gross Margins.

When budgeting for shearing (full wool) costs, a figure of approximately \$135 per hundred may be used for the average situation. This figure takes account of wages paid to shedhands etc, travel costs and levies. Actual costs will vary from farm to farm.

### Contract Shearing Rates

(Approximate only, for Canterbury Conditions)

**Note:** These are contract rates. Where an individual shearer is employed, use the Shearers and Shedhands award rates (Section 2.2.3).

Travel has not been incorporated into these rates but is chargeable at a rate of 42.87 cents per km.

For budgeting purposes - see above.

Shearing open	Full Wool.	Machine per 100	\$97.81
	Bellied /100		\$94.96
	Lambs /100		\$89.15

	Full belly crutch, flank, eyewig/100	\$46.42
	1/2 belly crutch, flank eyewig/100	\$43.28
	Dagging /100	\$29.62
	Classing rate/100	\$28.42
Shedhand rate/hour	\$10.86 to \$12.62 depending on experience	
Presser rate/hour		\$12.03
Contract shearing /100	- Machines	\$220.00
	- Blades	\$240.00

### Plant

Agrisales: Shearing Plant		
	'Super Pro' 1 Phase Electric Plant (Complete)	\$1111.11
	'Shoat' Shearing Plant (Dual Speed for sheep and goats).	\$791.11
Downtubes (For above plants)		
	Flexible/Rigid Downtube	\$248.89 to \$293.33
Portable Dagging Unit		
	Honda powered complete with flexible drive	\$1155.56

### Electric Grinders and Accessories:

Agrisales:		
Sunbeam Double	- 3 phase	\$1295.56
Lister-Petter NZ Ltd:		
	Lister Electric Grinder Double Ended	\$1340.88
	Lister Shear Leader electric shearing plant	\$1262.75
	Lister 2 Speed electric with flexible downtube	\$913.77
	Lister 2 Speed dagging unit with flexible downtube	\$900.00
	Lister Black Tallygrip Handpiece	\$ 403

### Gear and Accessories

Agrisales:		
Sunbeam Supergrip Handpiece		\$ 435.56
Combs	- Super/Flight/Super/Pacer	\$27.55
	- Cover comb/Goat comb	\$35.56
Cutters	- AAA/ Big Gem Cutter	\$5.51

### Lister-Petter NZ Ltd:

Combs		\$29.07
Cutters		\$5.33 to \$5.77

### Woolpresses

Allflex NZ Ltd:		
	High Country 3 Phase and single phase	\$10573
	Van-Gard FMI Hydraulic	\$4420
	Donald Manual Vertical Hoist Model HSW steel	\$2780
Capless pack conversion kits-	No tramp	\$452
	HSW	\$498

Prices Exclude GST

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Models H,A,AS,ES and ESW	\$498
Van-Gard FM1 and FW1	\$498
Manual press cap	\$148
No tramp cap	\$94
Side units only	\$350
Safety hoist brake	\$98

**Hydes:**

Heavy Duty for Capless Woolpacks \$9350 to \$10680

**Wool Tables**

Hydes(Ashburton) Round Rectangular and L Shaped from \$ 637

**Wool Pack Holders**

Hydes: (Ashburton) Wool pack holder \$196.00

**Fleece Weighers**

Allflex NZ Ltd:

Donalds 15 kg \$208.00

Fleece way - Scales, Cradle, 4 trays, wall bracket \$176.40

- Box Tallitag sorter \$20.27

**Wool Bale Trolleys**

Allflex NZ Ltd:

Ezyload bale barrow \$366.00

Hydes: (Ashburton) - bale barrow \$325.00

**Other Woolshed Expenses**

Stencils: Alphabet or numerals \$48.00

Sheep Counters: Hand tally counters \$9.00

Seaming Twine: \$5.96 to \$9.46 per hank depending on ply.

Packs: - Poly each \$ 6.67

- Jute each \$ 6.68

Capless packs - synthetic (without clips) each \$ 7.02

Woolbale clips 500/pkt \$16.00

**Wool Testing Fees**

Wool Measurement Service - Lincoln University:

Yield and Average Fibre Diameter test \$5.25/Sample

Other Tests e.g. Susceptibility to yellowing \$2.00/Sample

Average Fibre Diameter only \$3.75/Sample

**Wool Testing Services:**

Stud Ram Certificate \$30.00/Sample

Ram Report Service \$ 5.50/Sample

Flock Report Service - up to 100 samples \$ 4.50/Sample

- over 100 samples \$ 3.50/Sample

Micron only - Ranking within Flock	\$ 3.00/Sample
- Certificate	\$ 4.00/Sample

### **2.3.6 Stock Management**

#### **Mating Management Aids**

##### **Product**

Donaghys:

Stafix Ram/Goat Harnesses	\$21.80 to 24.80
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Crayons - Soft or Hard	\$ 2.95
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#### **Productivity Improvers**

Coopers:

Ralgro (Beef)	24 dose	\$ 74.67
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Ralgro Implanter		\$ 86.84
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Ralgro Needles	6's	\$ 17.07
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#### **Tailing and Marking Requisites**

Allflex NZ Ltd:

Earmarkers (Rim cuts)	- sheep	\$70 - \$129
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	- cattle	\$98 - \$148
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Sheep and Goat Daroux Emasculator	\$102.38
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Age marker	- single/double cattle	\$72.45
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	- single/double sheep	\$48.30
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**Note:** Allflex provides a service of sharpening earmarkers and clipper blades, and also clipper servicing - sheep \$29.40, cattle \$39.35

Shoof International:

Ear markers	\$40.00
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#### **Docking Pens**

Wiremakers:

Pen Size 2.45m x 2.45m, 100 lamb capacity	\$288.89
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Lamb Cradles (Stevlyon)- single	\$ 66.67
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Cyclone: Complete pen with double sided race	\$480.00
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#### **Raddles and Markers**

Donaghys:

Sprayline Aerosol Marker	400 g can	\$ 7.75
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Brightline Stick Raddle (per box, 20 sticks/box)	\$20.45
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Shoof International:

Tail and Cull Cow paint	\$12.40
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Line master aerosol paint	\$15.96
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Line master spot marker	\$88.44
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**Prices Exclude GST**

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**Stock Identification - Tags**

Allflex NZ Ltd:

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

24 to 59 cents each (blank), numbering or lettering 7 to 15 cents extra.

Per animal cost 56c to \$1.42 depending on size of tag and whether numbering or lettering is required.

Hi-View/Neck tag - Blank \$1.05, Numbered \$1.35 each.

Farm-acy Brass Tag		24c each
Farm-acy Nickel Tag		40c each
Farm-acy Kurl Lock (aluminium)		24c each
Farm-acy Flock		\$5.78/100
Steel figure punches	0-9	\$18.35
	A-Z	\$47.25

Talbot Plastics Ltd:

Ritchey Ear Tags

Blank	Sheep	37c
	Cattle	57c

Printed add 13-26c

Marking Fluid (per bottle) \$ 2.70

N.B. minimum invoice \$30.00

**Tag applicators and accessories**

Allflex International NZ Ltd:

Applicators		\$26.25 to \$51.45
Farm-acy Tag Closing Pliers		\$19.43
Hole Punch Flock/Brass Tag		\$39.60 to \$45.68

**Brands and Tattoos**

Agrisales: Rotating Head Tattoo set \$164.44

Allflex NZ Ltd:

Brands

Fire and Freeze brands (0-9) \$80.00

Tattoos

Farm-acy outfit Sheep/Goat/Cattle		10 to 12mm	\$151.20
Horstmann set	All animals		\$425.25
Rubber ink pad			\$55.65
Tattoo ink	Black	500gm	\$29.93
	Black or Green	120gm	\$ 8.40

Shoof International Ltd:

Ear Tattoo Set \$100.00

Number and Letter sets Each \$3.51

**De-Horning**

Allflex NZ Ltd:

Farm-acy calf dehorner

\$ 36.75

Farm-acy yearling dehorner

\$236.25

**Scales**

Allflex NZ Ltd:

Micropower:

Starter indicator

\$598

XP indicator

\$1390 to \$1680

Digital indicator

\$423

XP loadbars

\$1580

Basic loadbars

\$1200

XP printer

\$695

Platforms &amp; Crates:

Draftmaster crate

\$1150

Standard crate

\$879

Deer/Cattle platform

- 2.1m x 6.5m

\$610

- 2.1m x 8.4m

\$630

Universal stock race (complete)

\$830

Deer weighcrate C/W with floor

\$2339

No Tramp woolpress clamps

\$211

Woolpress weighing platform

\$310

**Agrisales:**

Indicator with battery

\$1266.67

Standard 2200 kg loadbars (pairs)

\$1777.78

250 kg loadcell

\$ 533.33

250 kg Suspension Cell

\$ 675.56

Drafting crate with loadcell

\$1893.33

Drafting crate loadbar type

\$1111.11

Pig crate with suspension cell

\$2377.78

Cattle Platform

\$ 533.33

Printer 230V

\$ 888.89

**Animal Crushes**

Allflex NZ Ltd: (Donalds)

Squeeze Cattle Crush (with auto head bail)

\$4222.00

Head Bail Automatic Walk-through

\$1042.00

Head Bail Gate Type (auto walk-through)

\$ 592.00

Hydes Distributors Ltd:(Ashburton)

Deer crushes from

\$2950.00

L.J. Carrington: (Tauranga)

Deer crushes

2.4m length

\$1008.00

2.0m length

\$968.00

**Prices Exclude GST****B-28**

## 2.4 CROPPING AND PASTURE ESTABLISHMENT EXPENSES

See also Sections 2.5 (Contracting) and 2.9 (Seeds).

### 2.4.1 Cultivation Costs for Arable Farms

#### **Guide to Cultivation Costs**

The following are based on the direct costs (excluding labour) of running a 50 kW (65 to 70 HP) tractor i.e. \$16.37 per hour (see Section 2.13.3).

	Hours per hectare	Cost Per Hectare \$
Ploughing	1.25	20.46
Grubbing	0.5	8.19
Rotary Hoe	2.0	32.74
Power Harrow	1.2	19.64
Harrowing	0.17	2.78
Roll	0.4	6.55
Drill	0.6	9.82
Direct drill	0.8	13.10

Refer also to Section 3.3, Gross Margins Analysis, for costs for a variety of crops.

### 2.4.2 Pollination

#### **Hive Hire**

In general \$40 to \$50 per hive for the pollination period of a crop.

This varies markedly from approximately \$20 per hive, where honey producing hives are moved to specific locations at a farmer's request, to \$100 per hive for the three to four week pollination period for kiwifruit, where the hives are for pollination only and no honey is produced.

### 2.4.3 Seed Certification Charges 1989/90

For entries with closing dates after the first Monday in October 1989 the following charges apply:

#### **Entry Fees:**

Sector Charge Code*	One Inspection Crop \$	Two Inspection Crop \$	Three Inspection Crop \$	Travel Component Per Insp.** \$
A	56.00	68.00	80.00	-
B	60.50	77.00	93.50	4.50
C	62.00	80.00	98.00	6.00
D	63.50	83.00	102.50	7.50
E	65.50	87.00	108.50	9.50
F	67.50	91.00	114.50	11.50
G	70.00	96.00	122.00	14.00
H	73.00	102.00	131.00	17.00



I	76.00	108.00	140.00	20.00
J	80.00	116.00	152.00	24.00
K	85.00	126.00	167.00	29.00
L	90.50	137.00	183.50	34.50
M	98.00	152.00	206.00	42.00
N	40.00	50.00	60.00	-

\* Distance related

\*\* For information only. The travel component is included in the charges.

Nil Inspection Crops	\$40.00
Charge for Late Entry per Entry	\$25.00
Charge for Re-inspection per Entry	\$55.00
Withdrawal of Entry prior to field inspection	\$25.00

The sixth and subsequent entries with a common closing date submitted by a grower will qualify for a 10% rebate.

#### **2.4.4 Sacks, Boxes and Packaging**

##### **Sacks**

Ashley Wool and Sack Ltd:

Sack sizes are designated in centimetres.

Sizes are unchanged from imperial.

Prices are new (ex store).

A 48 inch, 3 stripe sack is now 122 cm, cost \$1.75

A 46 inch standard sack is now 116 cm, cost \$1.50.

A 37 inch sack is now 94 cm and costs \$1.40.

N.B. Discounts for bulk (not normally sold as singles). A bale holds 250-300 sacks.

##### **Box Hire**

Hodder and Tolley Ltd:

\$6.00 per box

Box capacities are as follows:

Peas	1.3 tonne
Ryegrass	700 to 800 kg
Clover	1.0 tonne

##### **Packaging Equipment**

Cases and Cartons

\$1000 to \$2000 per 1000 depending on size and materials.

Berry Containers

\$50 to \$300 per 1000 depending on size and materials.

Punnets

\$120 to \$325 per 1000 (250g to 1.5kg)

Apple Bags

Plain	- 5 kg	per 1000	\$ 75.00
	- 9 kg	per 1000	\$160.00

**Prices Exclude GST**

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Cellophane	225 x 225 plain	per 1000	\$ 21.00
	300 x 400 plain	per 1000	\$ 37.50

#### 2.4.5 Weighing Charges

The current weighing charge at a public weigh bridge at Lincoln township is \$4.50 per truck, trailers are charged at an extra \$4.50.

#### 2.4.6 Grain and Seed Drying Charges, and Storage Charges

Wheat and Barley -	Depends on moisture levels, Average at 15-16% moisture costs \$18 per tonne. Price increases \$2 for each 2% increase in moisture.
Oats -	Same as moisture content, i.e. 16% moisture = \$16.

Buchanans Storage Company:

\$17.00 per tonne for all grains and small seeds.

All dryers have similar charges depending on moisture levels.

Grain Laboratory Tests:	Price/Sample
Protein/Moisture (NIR)	\$ 8.00
Falling Number	\$12.00
Black Point	\$ 6.60
Kernel Weight	\$ 6.00
Test Weight	\$ 2.10
Screenings	\$ 3.50
Full Range of Lab Tests	\$27.00
All grain storage	\$0.10 per tonne per day
Screening charge	\$13.00 per tonne

#### 2.4.7 Cool Storage

Coolpak Timaru Ltd:

Berryfruit-	unfrozen	= 5 c/kg for first month
	frozen	= 4.8 c/kg for first month
	both classes	= 3.3 c/kg each extra month

Hornby Cold Stores Ltd:

Base Rate	3 c/kg/month or part thereof
Blast freezing	3 c/kg/month or part thereof plus storage

**Note:** The base 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, and the length of storage time.

### 2.4.8 Seed Testing Fees

Schedule of Seed Testing Charges effective from 1 January 1990

#### MAFQual:

Purity and germination combined	\$ 76.50
Purity only	\$ 42.30
Germination only	\$ 42.30
Germination only field dressed (GOFD)	\$ 30.00
Endorsed certificates for export, NZ or Orange:	
A. Australia, Canada, Czechoslovakia, Hungary, Japan, USA, Chile, China, EEC, Finland, South Africa, Switzerland, USSR	\$ 49.00
B. Argentina, Colombia, Uruguay	\$ 37.00
Advice before completion (e.g. interim, telex, wire purity, wire regulations)	\$ 15.00
Copy (NZ or Orange Certificates)	\$ 12.00
Downgrading	\$ 37.00
Moisture	\$ 42.00
Seed weight determination	\$ 18.00
Vigour (peas, prairie grass, dogstail)	\$ 42.00
Buried seed content	\$ 77.00
Tetrazolium	\$ 49.00
Seed and Plant identification - Hourly rate	\$ 55.00
Urgent tests - Double normal rates	
OECD Plot Testing Charges - for each initial test of a sample of certified seed	\$ 8.00
Label Charge - Payable on each sack at initial test, redressing or blending, per label	\$ 0.16

#### Health:

Bacterial Blight	\$ 76.00
Pea Seed Borne Mosaic Virus	\$ 76.00
Endophyte	\$ 76.00
Blind Seed	\$ 76.00
Aschohyta (peas, broad beans, tick beans)	\$ 76.00
Seed Treatment Efficiency	\$ 76.00
Other health tests	\$ 76.00

#### Inoculant and Coated Seed Testing Services Tests:

Complete inoculant test	\$ 76.00
Semi complete inoculant test	\$ 59.00
Reduced inoculant test	\$ 37.00
Plant infection test	\$ 40.00
Duplicate plant infection test	\$ 70.00
Triplicate plant infection test	\$ 99.00
Quadruplicate plant infection test	\$127.00
Heterogeneity test	\$638.00

## 2.5 CONTRACTING CHARGES

### 2.5.1 Hay Making

One Palmerston North Contractor Charges:

Mowing \$45/ha; Conditioning \$18.75/ha; Raking \$18.75/ha

Baling - Conventional 75c/Bale

- Big Round Bale \$8/Bale

There is normally a surcharge of 20% for work on hill country.

In the Waikato area, contractor baling rates for conventional bales range from 72 cents to 75 cents per bale. Full contract charges for mowing, conditioning, raking, baling and cartage to barn are about \$3.00/bale. Contractor rates for baling large round bales is around \$9.60/15 Bale equivalent.

In the Hawkes Bay average rates for conventional square bales is 80 cents/bale and \$11 for large round bales.

Source: NZ Farmer January 1990.

**Note: Silage Making;** see section 2.5.5.

### 2.5.2 Cultivation

The following are typical contractor's rates for cultivation:

	<u>Rate per hectare</u>
Ploughing/Plough & roll	\$50.40 to \$52.20
Chisel plough/Double chisel plough	\$20.75 and \$19.70
Grub/Double grub	\$18.70 and \$17.50
Grub & harrow/Double grub and harrow	\$19.60 and \$18.40
Grub and Power Harrows	\$26.10
Double grub and power harrows	\$24.30
Power Harrow/Double Power harrows	\$11.40 and \$10.70
Direct Drill/Double direct drill	\$40.65 and \$35.90
Minimum till drill	\$39.15
Double minimum till drill	\$30.25
Convent. drill/Double convent. drill	\$40.00 and \$23.45
Heavy roll	\$13.05
Mow/Top	\$19.60 and \$13.05
Maxitill	\$11.12

### 2.5.3 Dipping

For budgeting purposes use 35 cents per head.

The range is approximately 30 to 40 cent per head but varies greatly between contractors and may be as high as 45c per head where contractor supplies all material and labour.

A Canterbury contractor charges 15 cents per sheep plus chemical.

### 2.5.4 Miscellaneous Contracting

Gorse cutting	\$48.40 per hour
Shelter Belt Trimmers	\$111.00 - \$114.50 per hour
Potato Harvesting	\$140.53 per hour or \$41.80 per tonne plus labour.

Digging of offal pits trenches drains etc.

Minimum of 8 hours work required	12 Tonne Machines	\$50/hr
	6 Tonne Machines	\$40/hr

### 2.5.5 Silage

Charged in several different ways depending on contractor.

In Canterbury, contractors charge between \$250 and \$280 per hour, this includes silage chopper, 2 trucks and payloader. 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.

### 2.5.6 Windrowing

\$54.50 per hectare - above 100 mm; \$56.60 with conditioner.

\$56.50 per hectare - under 100 mm; \$58.60 with conditioner.

### 2.5.7 Heading

Minimum charge in all cases should not be less than \$19.46 per foot front per hour.

Wheat	\$ 42.26 per tonne
Barley	\$ 50.70 per tonne
Oats	\$ 63.38 per tonne
Peas and Lupins	\$ 55.04 per tonne
Grass Seed	\$121.63 per hectare
Clover and Linseed	\$139.01 per hectare

Allowance should be made for standing time for trucks, and labour and for bagging.

Surcharge of 20% for work on hill country.

**NOTE:** Fencing Contractor rates see section 2.20

Shearing rates see section 2.3.5

Fertiliser spreading charges see section 2.7

Spraying costs see section 2.10.11

## **2.6 ELECTRICITY**

### **2.6.1 Total Farm Electricity Costs**

Depending on the type of farm, typical electricity costs are as follows:

Dairy Farms - \$19 to \$25 per cow per year.

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.

### **2.6.2 Regional Charges**

**Manawatu** - Manawatu-Taranaki Electricity Power Board.

Domestic: Supply Charge \$5.62/month or part thereof

Units Used - 24hr supply	\$0.0979/unit
Less than 24 hr supply	\$0.0529/unit
Economy, between 11pm-7am	\$0.0337/unit

Non-Domestic: Supply Charge \$5.62/month or part thereof

Units Used - 24hr supply	\$0.180/unit
Less than 24hr supply	\$0.0652/unit
Special purposes e.g. Brooders, Incubators.	\$0.1127/unit
Uncontrolled e.g. Schools, Piggeries.	\$0.1327/unit

Non-Domestic Night/Day Rate:

Supply Charge \$5.62/month or part thereof	
Night Units	\$0.0506/unit
Day units	\$0.2025/unit

Irrigation: Supply Charge \$5.62/month or part thereof

Units Used (subject to control)	\$0.0855/unit
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**Canterbury** - Southpower Farm Tariffs.

(A) Non-Domestic Tariffs-

- (i) General Supply: supply charge 41.5 to 51.2 c/day plus either all units at 16.31 cents or day units at 16.31 cents and night units 4.44 cents (special conditions apply).
- (ii) Controlled Supply: supply charge 41.5 c/day plus all units at 8.96 cents.
- (iii) Large User Supply: supply charge 51.2c/day plus day units at 9.01 cents and night units at 4.44 cents (special conditions apply).
- (iv) Bulk Supply: supply charge of 51.2c/day plus day units at 8.4 to 9.94 cents, plus night units at 4.44 cents (special conditions apply).

(B) Irrigation Rates -

- (i) Standard: annual capacity charge 12.2c/day/kW, less possible rebate, plus first step energy charge (for first 500kW) of 7.29c/kW, plus second step at 3.17c/kW.
- (ii) Alternative: annual capacity charge 6.1c/day/kW, less possible rebate, plus first step energy charge (for first 500kW) of 13.37c/kW, plus second step at 3.17c/kW.

### **2.6.3 Cost of Power Installation**

The average cost of installation for 1 kilometre of power line in rural areas is \$13,000.

Source: Straight Furrow November 1988

## 2.7 FERTILISER AND LIME

### 2.7.1 Fertiliser

Ravensdown Fertiliser Co-Operative Ltd: As at 1 December 1989

#### N.B. SUGGESTED RETAIL PRICE LIST

**Note: For bagged product in 50 kg bags add \$41.60 per tonne**

**: Citric Solubility figures and trace element quantities are provided at bottom of price list.**

N	P	K	S		<u>Price per tonne bulk</u>	
					<u>Napier</u>	<u>Hornby</u>
0	9	0	12	Super	\$198.33	\$207.69
0	11	0	8	Supergro Longlife	\$198.33	\$207.69
0	13	0	1	RPR (Nth Carolina)	\$185.85	\$201.45
0	9	0	12	Supergro Boron	\$229.11	\$234.42
0	9	0	12	Supergro Molybdate	\$205.61	\$218.09
0	9	0	12	Supergro Selenium	\$218.61	\$218.50
0	8	8	10	Supergro 15% Potash	\$221.83	\$229.84
0	6	15	8	Supergro 30% Potash	\$241.18	\$247.73
0	5	25	6	Supergro 50% Potash	\$266.86	-
0	8	0	16	Westland Pakihi Starter	-	\$243.57
0	8	0	20	Supergro Sulphur Super (10% SO <sub>4</sub> )	\$214.03	\$222.77
0	8	0	28	Supergro Sulphur Extra	-	\$233.58
0	9	0	18	Supergro Sulphur Super Longlife	-	\$222.77
0	8	0	20	Supergro Molybdate Sulphur Super	-	\$228.90
0	5	15	14	Supergro 30% Pot. Sulp.Super	-	\$258.54
6	7	0	16	Supergro Nitrogen Super (30% S/A)	-	\$232.23
8	4	8	15	Supergro Orchard Regular	-	\$257.50
<b>Special Mixtures</b>						
0	6	15	8	30% Potash Boron Super	-	\$269.46
0	6	15	8	30% Potash Molybdate Super	-	\$253.86
0	0	50	0	Potassium Chloride (standard)	-	\$337.48
0	0	50	0	Potassium Chloride (Granular)	-	\$337.48
0	0	40	17	Potassium Sulphate - in bags	-	\$792.48
0	15	0	7	Hyphos S	\$371.49	-
0	14	0	12	Hyphos Supreme	\$370.45	-
7	6	7	14	Higro 7-6-7	\$253.45	-
0	0	50	0	Potassium Chloride	\$337.48	-
<b>Cropmasters</b>						
18	20	0	2	Cropmaster DAP	\$500.14	\$500.14
15	10	10	8	Cropmaster 15	\$410.18	\$410.18
20	10	0	13	Cropmaster 20	\$405.08	\$405.08
<b>Nitrogen</b>						
28	0	0	0	Calcium Ammonium Nitrate in bags	\$614.22	\$576.06

Prices Exclude GST

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21	0	0	24	Ammonium Sulphate (Std)	\$275.60	\$275.60
21	0	0	24	Ammonium Sulphate (Gran.)	\$301.70	\$301.70
46	0	0	0	Urea(Nrich 40kg,500kg bags)	\$433.46	\$433.46
46	0	0	0	Urea (Nrich, 1 tonne bags)	\$431.81	\$431.81
46	0	0	0	Urea Bulk	\$387.70	\$390.94
10	20	0	2	Ammophos MAP	\$500.14	-
9	17	7	2	Ammophos/hycrop	\$478.40	-
8	14	13	2	Ammophos/hycrop - bags	\$459.37	\$500.97
8	14	13	2	Ammophos/hycrop (pea mix) - bags	-	\$505.75
8	10	20	1	Ammophos/hycrop	\$435.14	-

#### Nitrophoska

12	10	10	1	Nitrophoska - in bags	\$509.18	\$579.49
12	5	14	6	Nitrophoska Blue Extra - in bags	\$514.49	\$746.62
12	5	14	3	Nitrophoska Blue TE - in bags	\$3.13/kg	\$690.66

#### Horticultural Fertiliser - Bagged Price (\$/tonne)

N	P	K	S	Mg		
0	0	40	17	0	Potassium Sulphate	\$ 868.82 -
0	9	0	12	0	Horticultural Super	\$ 270.40 -
0	0	0	23	0	Zinc Sulphate 23% Zn	\$ 830.65 -
0	0	0	13	10	Magnesium Sulphate	\$ 576.06 -
0	0	0	0	11	Dolomite (Bulk) \$332.59/t	\$ 374.19 -
13	0	38	0	0	Potassium Nitrate	\$1082.74 -
0	0	0	23	0	Ferrous Sulphate 19% Fe	\$ 510.33 -
0	0	0	13	0	Manganese Sulphate 32% Mn	\$1467.13 -
0	0	0	0	55	Calcined Magnesite	\$ 445.54 -
0	0	25	18	6	Potassium Magnesium Sulphate	\$ 741.52 -

#### Citric Solubility

Superphosphate	8.5
Longlife Super	7.0
Reactive Rock	Approx. 30.0
Sulphur Super Extra	7.0

#### Trace Elements

The figures indicate the quantity of the element added to the fertiliser mix. An application rate of the fertiliser at 250kg/ha will provide the recommended rate of the trace element concerned.

Boron	25 kg per tonne	(as Sodium Borate)
Cobalt	0.5 kg per tonne	(as Cobalt Sulphate)
Copper	25 kg per tonne	(as Copper Sulphate)
Selenium	4 kg per tonne	(as Sodium Selenate)
Molybdenum	0.25 or 0.5 kg per tonne	(as Sodium Molybdate)
Magnesium	80 kg per tonne	(as Magnesium Oxide)



Quinphos Fertilisers (NZ) Ltd:

N	P	K	S		Ex Napier	Ex Gisborne
0	12.7	0	1.5	Quinphos RPR	\$178	\$187
0	10.6	8	1.3	15% Potash RPR	\$214	\$224
0	10.0	10	1.2	20% Potash RPR	\$222	\$232
0	8.7	15	1.0	30% Potash RPR	\$236	\$248
0	6.3	25	0.8	50% Potash RPR	\$263	\$276
0	0	50	0	Muriated Potash	\$327	\$367

Sulphurised RPR

0	10.0	0	6.0	Clover King Thermal	\$186	\$191
0	12.3	0	4.0	Clover King Low S	\$208	\$213
0	11.8	0	7.5	Clover King Med S	\$219	\$225
0	11.3	0	11	Clover King High S	\$232	\$237

Potash Plus Sulphur Blends

0	10.5	8	3.4	15% K Clover King LS	\$228	\$237
0	9.8	10	3.2	20% K Clover King LS	\$234	\$244
0	8.6	15	2.8	30% K Clover King LS	\$248	\$259
0	6.1	25	2.0	50% K Clover King LS	\$272	\$284
0	10.0	8	6.4	15% K Clover King MS	\$236	\$245
0	9.4	10	6.0	20% K Clover King MS	\$242	\$253
0	8.3	15	5.2	30% K Clover King MS	\$255	\$266
0	5.9	25	3.7	50% K Clover King MS	\$277	\$289
0	9.6	8	9.6	15% K Clover King HS	\$245	\$255
0	9.0	10	9.0	20% K Clover King HS	\$252	\$262
0	7.9	15	7.9	30% K Clover King HS	\$263	\$275
0	5.7	25	5.7	50% K Clover King HS	\$283	\$295

Magnesium Blends "Reactamag" Range

N	P	K	S	Mg			
0	10.0	0	1.2	4.5	Reactamag	\$190	\$210
0	7.9	8	1.0	4.5	15% Potash Reactamag	\$213	\$229
0	6.9	10	0.0	4.5	20% Potash Reactamag	\$218	\$234
0	6.0	15	0.7	4.5	30% Potash Reactamag	\$234	\$250
0	9.4	0	6.0	4.5	Reactamag S	\$201	\$216
0	7.4	8	5.1	4.5	15% Potash Reactamag S	\$225	\$240
0	6.5	10	4.8	4.5	20% Potash Reactamag S	\$230	\$245
0	5.6	15	4.2	4.5	30% Potash Reactamag S	\$244	\$260

Rural Research Ltd:

Nitrosol, liquid blood & bone	- 200 litre drum	\$725.00
N P K	- 20 litre drum	\$105.00
8 3 6	- 4 litre pail	\$ 32.00

Hortlink Marketing Ltd:

Blood and Bone	50 kg	\$28.13
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Prices Exclude GST

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Calcium Nitrate	50 kg	\$51.02
Copper Sulphate	50 kg	\$86.22
Di Ammonium Phosphate	50 kg	\$31.24

**Liquid fertilisers:**

Alaska	5 Litres	\$24.50
Maxicrop	5 Litres	\$20.90
Nitrophoska foliar	20 litres	\$100.60
Phostrogen	4 kg	\$37.74

**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	\$58.00
31	4	8	Microfeed 311	20 kg	\$76.00
22	5	18	Microfeed 212	20 kg	\$80.35
20	9	17	Microfeed 111	20 kg	\$88.15
16	3	27	Microfeed 214	20 kg	\$80.00
10	13	17	Microfeed 132	20 kg	\$91.00

**Chelated Trace Elements based on EDTA (powder)**

Vytel B.M.X. (B-Z)	25 kg	\$312.30
Vytel Cobalt 14	25 kg	\$785.00
Vytel Copper 14	25 kg	\$305.00
Vytel Iron 13.2	25 kg	\$237.00
Vytel Magnesium 6	25 kg	\$275.00
Vytel Manganese 13	25 kg	\$271.00
Vytel Zinc 15	25 kg	\$271.00

**Turf and Nursery speciality slow release fertilisers**

Azalon (Powder, granular)	25 kg	\$97.35
IB Compound granular	25 kg	\$90.00
IBDU Woodace	15 kg	\$92.00

**Sundry Fertilisers/Trace Elements**

Calcium Nitrate	50 kg	\$51.40
Potash Nitrate	50 kg	\$78.30
Manganese Sulphate	1 kg	\$ 1.05
Magnesium Sulphate	50 kg	\$38.00
Soluble Boron 20.5%	25 kg	\$76.20

**Natumix Fertilisers Ltd: (ex Waiotira, Northland)**

N	P	K	S	CaCO <sub>3</sub>	Mg		<u>Price/Tonne</u>
0	6	2	6	86.7	1	Basic	\$191.00
0	6	7	6	78.1	.3	10% K	\$220.00
0	5	9	6	73.7	.3	15% K	\$238.00

0	5	12	5	69.4	.2	20% K	\$252.00
0	4	17	5	60.7	.2	30% K	\$280.00

**Bell Booth Group Ltd:**

Maxicrop G.S.	200 litres	\$1196.00
Liquid Nitrogen	200 litres	\$ 620.00
Nutrimol	20 litres	\$ 145.00
Seaweed Meal	25 kg	\$ 45.00
Vitagram Seaweed Pellets	25 kg	\$ 35.56
Elthamol	17 kg	\$ 104.00
Agsel Selenium Pellets	25 kg	\$ 42.00

**Hatuma Lime Company Ltd:**

N P K S	Per Tonne
0 4 0 5 Dicalcic Phosphate	\$145.00
0 2 12 3 Hay Mix/Dairy Blend	\$215.75
0 3 0 4 10% Salt	\$151.00
15% Potassic Dicalcic Phosphate	\$182.95
30% Potassic Dicalcic Phosphate	\$220.90

**2.7.2 Lime**

Whiterock Lime Co. Ltd: (North Canterbury)	<u>\$/Tonne</u>
Cost per tonne ex quarry.	\$ 13.00

Taylor's Lime Co. Ltd: (Oamaru)	\$ 15.00
---------------------------------	----------

**McDonald's Lime Ltd: (Otorohanga)**

lime	\$ 16.50
Hydrated lime	\$175.00
Lime Sulphur (25 litre Cans)	\$ 36.50

**Hatuma Lime Co. Ltd:**

Agricultural Lime	\$ 15.00
Cropfine Lime	\$ 22.50
Limeflour - Bulk	\$ 48.00
- 50 kg Bags	\$ 86.00
Calsul Lime and Sulphur	\$ 84.00

**2.7.3 Spreading/Application Costs**

**Ground Spreading**

**Domett's Lime Co. Ltd:**

Bulk spreading charges for Fertiliser and lime.

<u>Rate kg/ha</u>	<u>Cwt/acre</u>	<u>Price \$/t</u>
125 - 187.5	1.0 - 1.5	\$27.00
250	2.0	\$23.00
375	3.0	\$19.00

**Prices Exclude GST**

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500 - 625	4.0 - 5.0	\$17.00
750 - 1125	6.0 - 9.0	\$13.00
1250	10.0	\$10.50
1500 - 2375	12.0 - 19.0	\$ 8.50
2500	20.0	\$ 7.50

Local Transport Authority Suggested Rates:  
Canterbury Area - all rates are \$ per tonne

Kg/ha	Cwt/acre	Flat Grass	Hill Grass or Flat Cult.	Steep Hill Medium Cult.	Steep Cult.
125	1	\$71.70	\$86.21	\$107.62	\$125.60
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
2500	1t/a	\$ 6.44	\$ 8.09	\$ 9.69	\$ 11.15
3750	1.5t/a	\$ 5.20	\$ 6.56	\$ 7.79	\$ 9.12
5000	2t/a	\$ 3.91	\$ 4.91	\$ 5.86	\$ 6.85

Extra	Unloading from Railway wagons	\$5.24/t
	Mixing of super and lime	\$2.53/ha
	Mixing of basic slag with lime	\$4.56/ha
	Sowing out with grain or grass	\$6.46/ha

#### **Aerial Spreading**

The cost of aerial spreading of fertiliser varies greatly and depends very much on the location and difficulty of the terrain.

Most firms prefer to quote for individual situations rather than publishing fixed rates.

An estimate from a North Canterbury firm was \$35 per tonne for the aerial spreading of superphosphate.

#### **The Helicopter Line:**

All agricultural work done on an hourly rate.

Bell Jet Ranger	\$ 930/hr
Hughes 500D	\$ 930/hr
AS 350B Squirrel	\$1050/hr

#### **2.7.4 Soil, Water, Plant and Feedstuff Testing**

M.A.F. Soil Testing Charges are as follows:

Agricultural	- \$40 per sample for laboratory test.
	- \$17 extra for topdressing recommendation.
Horticultural	- \$40 per sample less \$6 per test not required.
	- \$25 extra for topdressing recommendation.

**Soil Testing Services: (Tauranga)**

Full lab analysis in U.S.A. can take from 3 to 4 weeks to obtain the results.

Standard Test - Mg, P, K, Mn, S, Na, B, Fe, Cu, Zn,

Organic Matter and pH.

\$90.00

Additional tests for Co and Mo

\$22.00

All results are returned to the customer plus a fertiliser recommendation.

**Analytical Services Ltd: (Cambridge)**

**Soil:** Basic Test - pH, P, K, Ca, Mg, Na, Cation Exchange Capacity and Base Saturation % \$33.00

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

**Potting Mixes:** pH, Conductivity, Nitrate-N, Ammoniacal-N, P, Ca, K, Mg, and Na \$39.00

**Water:** pH, alkalinity, free CO<sub>2</sub> etc. \$66.00

**Nutrient Solutions:**

pH, Nitrate-N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu, and B. \$39.00

**Plant Tissue:** Basic Test N, P, K, S, Ca, Mg, Na, Fe, Mn, Zn, Cu and B \$56.00

Additional Tests Mo, Co, Sn, SO<sub>4</sub><sup>=</sup>, I, Cl, and Al Each \$10.00

**Feedstuffs:** Dry matter, Crude protein, Crude Fibre \$45.00

Crude Fat or Oils \$25.00

Macroelements, ash content, pH, NH<sub>3</sub>-N/Total N and moisture Each \$10.00

## 2.8 FREIGHT AND CARTAGE

### 2.8.1 Road Transport Rates

Road Freight rates are normally dependent on both type of goods and distance to be carted.

The following figures are for the Canterbury area - in other areas the rates may differ slightly. Rates are available on application to the local branch of the Road Transport Association (Incorporated).

September 1989 rates (\$/unit - tonne unless otherwise stated):

	10	30	40	<u>km</u> 50	60	70	80
General Goods	19.10	31.89	37.21	41.93	46.42	50.27	53.30
Bagged Lime & Fertiliser	14.19	24.01	26.61	30.89	34.84	38.03	40.94
Bulk Lime	12.52	20.21	23.69	26.92	30.21	32.74	35.35
Bulk Fertiliser	10.57	19.62	22.86	26.42	29.94	33.06	35.95
Wool per bale	3.85	5.89	6.86	7.85	8.77	9.59	10.12
Bulk Grain	11.12	18.36	24.49	24.16	26.69	28.93	31.11

#### Fat lambs to works

<u>km</u>	cents per head	<u>km</u>	cents per head
10	57.1	90	179.0
20	75.5	100	190.0
30	94.1	110	205.0
40	109.1	120	216.0
50	124.5	130	229.0
60	139.2	140	238.0
70	153.0	150	251.0
80	166.0	160	259.0

#### Store Stock (dollars per head)

	<u>km</u>						
	10	30	50	70	100	130	160
Store lambs	0.468	0.792	1.065	1.30	1.62	1.88	2.18

Hoggets	0.690	1.087	1.405	1.69	2.10	2.46	2.78
Store sheep	0.811	1.221	1.562	1.86	2.27	2.65	3.06
Sheep	0.88	1.342	1.771	2.15	2.64	3.09	3.53
Weaners	2.48	5.38	7.28	8.87	10.80	12.41	13.65
Vealers							
18 month	3.71	6.47	8.67	10.65	13.18	15.28	17.02
Store steers							
2 yr cattle	5.36	8.98	12.10	15.11	19.23	22.77	25.71
Store cows							
In calf cows							
Works cattle	6.79	10.99	14.53	17.73	22.48	26.43	30.26

#### **Small Goods Rates:**

Weight	up to 16km	17-32km	33-48km	49-64km	over 64km
6 kg	\$1.93	\$2.20	\$2.41	\$2.65	\$2.93
32 kg	\$2.93	\$3.38	\$3.38	\$4.33	\$4.85
102 kg	\$5.81	\$6.77	\$7.33	\$9.72	\$12.11
508 kg	\$14.34	\$19.38	\$24.20	\$29.06	\$33.92
968 kg	\$23.22	\$31.48	\$38.76	\$46.05	\$53.31

### **2.8.2 Railway Transport Rates**

#### **Rail Freight Rates**

Railfreight Systems has withdrawn its rate schedule based on commodities and instead, quotes for each proposal in the light of all circumstances.

The following is published as an example of December 1989 rates (from Christchurch):

Consignments of 1 to 25 kg cost between 33c/kg (to Ashburton) and \$1.28 per kg (to Whangarei) depending on distance  
e.g. 20 kg from Christchurch to Whangarei would cost \$25.60 (20kg x \$1.28).

Larger consignments are charged for on a base rate plus a per kg rate, again depending on distance.

e.g. a 1 tonne consignment from Christchurch to Auckland would cost \$332.75 (base rate of \$82.75 plus 25c per kg) The same consignment to Invercargill would cost \$208.25 (base rate of \$48.25 plus 16c per kg).

#### **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.

**Prices Exclude GST**

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Commercial vehicles

For example a 3.5 tonne truck :	<u>\$/m*</u>
- Empty	73.00
- loaded with any class of livestock	101.25
- General goods	129.25

Machinery: self propelled or towed machinery on wheels, and up to 2.6m width.  
(If over 2.6m, rate varies with width ) 101.25

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

**2.8.3 Air Freight Rates**

Air New Zealand:

Overnight Domestic Rates quoted ex Christchurch

Minimum of 20 kgs:

To Rest of Canty/Westland	\$0.70/kg
To Rest of S.I. & Wellington	\$1.10/kg
To Auckland & Palmerston North	\$1.30/kg
To Rest of North Island	\$1.50/kg

For consignments between 101 and 500kgs a 20% discount applies to the above rates, for consignments exceeding 501kgs a 30% discount applies.

Delivery Options- For each piece or for every 20kgs (whichever is greater) the price is:

8.00am delivery	\$3.00
9.30am delivery	\$2.00
2.00pm delivery	No Charge
Saturday delivery	\$4.00

(Auckland, Wellington and Chch only)

International

Destination	Normal Rate/kg	Foodstuffs (per kg)			Flowers/Bulbs/Seeds (per kg)	
		100kg min	250kg min	500kg min	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	-	\$3.53
Hong Kong	\$14.18	\$3.15	\$3.01	-	-	\$3.78
London	\$18.60	\$5.00	-	-	-	\$7.08
Los Angeles	\$18.31	\$4.44	-	-	\$4.23	-

NOTE: For Courier Services see section 2.15.3



## 2.9 SEEDS AND PLANTS

### 2.9.1 Seeds

As a general rule, seed grain (treated, certified, second generation) costs approximately 1.5 to 3 times the price of ordinary production grain.

	<u>Price</u>
<b>Wheat</b>	
Bulk	\$420/tonne
Bagged	\$450/tonne
<b>Barley</b>	
Feed bulk	\$300/tonne
sacks	\$330/tonne
Malting	\$600/tonne
<b>Oats</b>	
Bulk	\$415/tonne
Bagged	\$465/tonne
<b>Lupins Blue, White, Llaima</b>	\$550 to \$600/tonne
<b>Ryecorn Rahu MD Certified</b>	\$550/tonne
<b>Maize Various hybrids (treated)</b>	\$30.65/25kg Bag
<b>Peas and Beans</b>	
Marrowfats	\$ 575/tonne
Garden	\$2000/tonne
Exel	\$ 695/tonne
<b>For Watties Process Crop Seed Prices: (see also vegetable seeds later)</b>	
Peas	\$1.19/kg
Whole Beans	\$7.25/kg
Green Beans	\$4.90/kg
Broad Beans	\$1.20/kg
Carrots/Baby Carrots	\$50.00/kg to \$66.00/kg
Seed is normally supplied by the Company and the cost deducted from final payout.	

### 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.

<b>Rape:</b> Range of cultivars e.g. Rangi \$3.56/kg	\$2.09 to \$5.51/kg
<b>Swedes:</b> e.g. Atur swede	\$ 5.60/kg
<b>Turnips:</b> Range of cultivars e.g. Appin \$5.51/kg	\$ 5.51 to \$ 5.95/kg
<b>Kale:</b> Medium stemmed varieties e.g. Kestral \$5.96/kg	\$3.33 to \$5.96/kg
<b>Fodderbeet:</b> e.g. Monoval	\$28.00/kg
<b>Forage Brassicas:</b> Range of cultivars e.g. Wairoa Brassica \$3.51/kg	\$3.51 to \$5.07/kg
<b>Lucerne:</b> Range of cultivars e.g. Wairau \$14.31/kg	\$8.00 to \$14.95/kg
<b>Ryegrass:</b> Depending on cultivar & generation e.g. Nui \$1.42/kg; Concord \$2.98/kg	\$1.42 to \$3.91/kg
<b>Cocksfoot:</b> Wana and Suborto (depending on generation)	\$4.80 to \$5.96/kg
<b>Prairie Grass:</b>	\$2.00 to \$ 2.76/kg
<b>Maru Phalaris:</b>	\$9.11/kg
<b>Fescue:</b>	\$6.60 to \$9.20/kg
<b>Maku Lotus:</b>	\$26.00 (uncertified)/kg
<b>Timothy:</b> Kahu (depending on generation)	\$4.89/kg
<b>Puna Chicory:</b>	\$11.96/kg
<b>Crested Dogtail:</b>	\$3.91/kg
<b>Clovers:</b> White (depending on cultivar and generation) e.g. Huia \$4.89/kg, Pitau \$7.82/kg	\$4.89 to \$8.15/kg

Red (depending on cultivar and generation)	\$3.91 to \$8.44/kg
e.g. Pawera \$7.82/kg, Hamua \$4.31/kg	
Subterranean e.g. Mt. Barker	\$7.78/kg

Refer to Section 2.9.2 for seed coating costs.

### 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.)

<b>Asparagus:</b>	\$55.00 to \$454.00/500g
<b>Beans:</b>	
Broad	\$180 to \$200/50 kg
Butter or Wax - Golden Wax	\$240 to \$250/50 kg
Dwarf French Beans	\$160 to \$630/50 kg
Runner	\$180 to \$375/50 kg
<b>Beetroot:</b>	\$18.00 to \$54.00/500g
<b>Broccoli Hybrid:</b>	\$490.00 to \$940.00/500g
<b>Brussel Sprouts:</b>	\$375/100g
<b>Cabbage:</b> Hybrid	\$300.00 to \$485.00/500g
Red, Chinese	\$14.00 to \$ 458.00/500g
<b>Carrot:</b>	\$26.80 to \$175.00/500g
<b>Cauliflower:</b>	\$85.00 to \$1020.00/500g
<b>Celery</b>	\$88.00 to \$450.00/100g
<b>Cress:</b>	\$ 12.00 to \$16.00/500g
<b>Cucumber:</b>	\$25.00 to \$600.00/500g
<b>Egg Plant:</b>	\$35.00 to \$515.00/500g
<b>Gherkin</b>	\$30.00 to \$250.00/500g
<b>Leek:</b>	\$30.00 to \$275.00/500g
<b>Lettuce:</b>	\$40.00 to \$90.00/500g
<b>Onion:</b>	\$40.00 to \$100.00/500g
<b>Parsley:</b>	\$30.00 to \$175.00/500g
<b>Parsnip:</b>	\$40.00 to \$44.00/500g
<b>Pea:</b>	\$112.00 to \$220.00/50kg
<b>Pumpkin:</b>	\$20.00 to \$136.00/500g
<b>Radish:</b>	\$15.00 to \$121.00/500g
<b>Rockmelon:</b>	\$29.85 to \$1160.00/500g
<b>Silver Beet:</b>	\$16.00 to \$22.00/500g
<b>Spinach:</b>	\$10.00 to \$18.00/500g
<b>Spring Onions:</b>	\$45.00 to \$120.00/500g
<b>Squash:</b>	\$25.00 to \$255.00/500g
<b>Swedes:</b>	\$8.65 to \$10.00/500g
<b>Sweet Corn:</b>	\$10.00 to \$19.50/500g
<b>Tomato:</b>	\$40.00 to \$250.00/500g
<b>Turnip:</b>	\$13.00 to \$240.00/500g
<b>Watermelon:</b>	\$27.00 to \$360/500g

Prices Exclude GST

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## Flower Seeds

NOTE: There can be a wide range in cost of flower seeds, depending on the variety of seed.

Yates NZ Ltd:

Carnations	\$ 44.00 per 100g
Freesia	\$200.00 per 100g
Aster	\$24.80 to \$114.00 per 100g
Chrysanthemum	\$ 30.45 per 10g
Dahlia	\$36.00 to \$98.00 per 100g
Geranium	\$125.00 to \$400.00 per 1000 seeds
Gerbera	\$210.00 per 100g
Gypsophila	\$16.00 to \$20.00 per 100g
Lobelia	\$85.00 to \$140.00 per 100g
Marigold	\$20.00 to \$97.00 per 100g
Polyanthus	\$170.00 per 10g
Sweet Pea	\$10.00 per 100g
Wallflower	\$33.15 to \$38.65 per 100g
Zinnia	\$10.00 to \$20.00 per 100g

## Bulbs (per 100)

Hyacinths	\$100.00
Tulips	\$42.00 to \$ 74.20
Anenomes	\$ 5.20 to \$ 11.20
Crocuses	\$23.00 to \$ 24.75
Freesias	\$19.30
Nerines	\$65.00 to \$150.00

### 2.9.2 Seed Coating

Prebble Seeds:	Seed/Coat ratio	\$/kg
Ryegrass and Dogstail	1:1	0.95
Lucerne, Red and White Clover	1:1.75	1.10
Cocksfoot and Timothy	1:1	1.00

### 2.9.3 Plants (see also section 2.23.1 for shelter plants)

#### Fruit Trees

Prices are per tree but based on an order of 10 trees. It should be emphasised that a grower buying in bulk would be able to negotiate a substantially discounted price if buying hundreds or thousands of the same variety. (Harrison's, Waimea Nurseries, Patullios Nursery and Kumeu Kiwifruit Nurseries).

Almonds	\$5.95 to \$7.20	Nashis	\$4.00 to \$5.80
Apples	\$5.00 to \$6.70	Nectarines	\$6.00 to \$6.60
Apricots	\$5.95 to \$8.60	Peaches	\$6.00 to \$8.90
Cherries	\$5.95 to \$8.85	Pears	\$5.70 to \$8.25
Citrus	\$6.35 to \$7.50	Persimmons	\$5.25 to \$9.50
Loquats	\$6.90	Plums	\$6.00 to \$7.80
Quinces	\$5.80 to \$7.30		

**Nut Trees:**

Chestnuts	\$5.00 to \$6.60 (Grafted \$10.00)
Hazelnuts	\$3.40 to \$9.65
Walnuts	\$4.65 to \$24.70 (grafted) \$6.45 to \$11.00 (seedlings)

**Vines:**

Feijoas	\$4.95
Grapes	\$3.50 to \$5.00 (depending on variety)
Kiwifruit	Cuttings \$4.00 to \$5.80 (male and female plant), depending on variety Seedlings 6 month to 2 years \$0.50 to \$3.50 each

**Berryfruit**

(Discounts available for bulk orders, approx. prices given below)

Strawberry Runner	price/100: \$26.67	Blackcurrant (plants)	\$4.00 to \$5.78
Raspberry (plants)	price/100: \$44.44	Redcurrants	\$4.00 to \$5.78
Brambles	\$4.00 to \$5.78	Gooseberries	\$6.67 to \$8.44
Boysenberry	\$4.00 to \$5.78		

**2.9.4 Planting/Propagating Material****Athco Industries:****Planterbags**

64 x 64 x 150mm	\$28.45/1000
120 x 120 x 460mm	\$121.00/1000
300 x 300 x 600mm	\$1200.00/1000
Plastic labels 125 mm	\$27.25 to \$38.35/1000

**Hortlink Marketing:**

Seedling Troughs	6" x 4"	\$ 99.20/1000
Green Pots	12 cm	\$212.80/1000
Display labels/Plastic labels 125mm		\$35.36 to \$38.35/1000
Mini heater pad		\$23.65 to \$ 99.05
Large heater pads		\$12.00 to \$192.00
Tray/Thermostat/Mist Units		\$828.00 to \$917.00
Polythene Film	Black 1.25m x 50m	\$85.66
Shade Cloth	70% light 1.83m x 50m	\$183.66
Wind Break Cloth	1.83m x 50m	\$129.20

**Permathene Plastics Ltd:**

Capillary matting	3.2m x 50m	\$2213.34
	3.2m cut to length/LM	\$ 44.27
Hydroponic film	600mm x 200mm x 200mu	\$260.03
	4m x 50m x 240mu	\$520.06

**Prices Exclude GST**

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## 2.10 WEED, PEST AND DISEASE CONTROL

### 2.10.1 Weed, and Pest Control - Budget Figures

Depending on the type of farm, location and seasonal factors, typical weed and pest control costs are:

- Dairy Farms - \$700 to \$1800 per year
- Sheep and Beef Farms - \$800 to \$1600 per year
- Arable Farms - see examples in Section 3, Gross Margin of crops.
- Orchards - see examples in Section 3, Gross Margin of fruit.

See individual items in this section for accurate budgeting.

### 2.10.2 Weed, Pest and Disease Control - General

Many herbicides, fungicides, and insecticides are produced by a number of chemical companies and come in ranges of strengths. Hence the trade names shown are to serve only as examples of the chemical concerned; the Budget Manual does not endorse any particular product over another.

The following coding has been employed to distinguish between the various Agrochemical companies:

<b>A</b>	BASF	<b>N</b>	Nu Farm
<b>B</b>	Bayer	<b>P</b>	Rhone Poulenc
<b>C</b>	Ciba Geigy	<b>R</b>	Rohm and Haas
<b>D</b>	Du Pont	<b>S</b>	Shell Agriculture
<b>I</b>	ICI	<b>W</b>	Ivon Watkins Dow
<b>M</b>	Monsanto	<b>Y</b>	Yates

### 2.10.3 Herbicides

For full information regarding common names, propriety names and percent active ingredient refer to the New Zealand Agrichemical Manual (third edition) published by Agrichemical Manual Partnership.

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
2,4-D amine	2,4-D amine (40.0)	W	20 litre	\$ 158.75
2,4-DB	2,4-DB (40.0)	W	20 litre	\$ 178.32
2,4-D Salt	2,4-D butyl ester (80.0)	W	25 kg	\$1680.00
Actazine 5A	atrazine (50.0)	W	20 litre	\$ 164.64
Alicep	chlorobufam (20.0)			
	chloridazon (20.)	Y	25 kg	\$1206.36
Amiben	chloramben (83.0)	A	5.45 kg	\$ 282.50
Amitrole	amitrole (20.0)	Y	20 litre	\$ 153.60
Amitrole	amitrole (40.0)	Y	20 litre	\$ 213.75
Amitrole 4L	amitrole (40.0)	N	20 litre	\$ 212.50
Amitrole 4L	amitrole (40.0)	W	20 litre	\$ 246.25
Asulox	asulam (40.0)	P	20 litre	\$ 448.60
Avadex	triallate (40.0)	M	20 litre	\$ 276.25
Avenge 640	difenoquat (64.0)	Y	25 kg	\$1113.25

Axall	bromoxynil (7.5)	P	5 litre	\$ 96.87
	ioxynil (7.5)	P	20 litre	\$ 307.50
Banvel 200	MCPA(37.0),Dicamba(3.0)	I	20 litre	\$ 422.37
Banvel D	2, 4-D (40.0) plus dicamba (7.5)	I	5 litre	\$ 62.95
		I	20 litre	\$ 249.59
Banvine	2,4-D (20.0)	W	1 litre	\$ 23.77
	dicamba (10.0)	W	5 litre	\$ 95.38
Basagran	bentazone (48.0)	A	20 litre	\$ 555.93
Betanal AM11	Phenmedipham (8.3)			
	desmedipham (8.3)	W	5 litre	\$ 212.88
Bladex	cyazazine (50)	S	20 litre	\$ 308.16
Brasoran WP	aziprotryne (50.0)	C	2 kg	\$ 123.57
Bromocide	sodium chlorate (59.0)			
	sodium borate (41.0)	N	20 litre	\$ 312.50
Buctril M	bromoxynil (20.0)			
	MCPA (20.0)	N	20 litre	\$ 312.50
Buster	ammonium phopshate (20.0)	N	20 litre	\$ 459.12
Caragard FW	terbuthylazine (25.0)	C	5 litre	\$ 111.84
	terbumeton (25.0)	C	20 litre	\$ 422.40
Carbetamex	carbetamide (70.0)	P	5 kg	\$ 123.74
Chloro-IPC	chlpropham (40.0)	Y	20 litre	\$ 341.25
Classic DF		D	500 g	\$ 218.75
Combine	bromoxynil (20.0)	P	5 litre	\$ 156.00
	ioxynil (20.0)	P	20 litre	\$ 474.30
Commando	L-flamprop	S	5 litre	\$ 137.81
	isopropyl(20.0)	S	20 litre	\$ 460.52
Cohort	linuron (27.9)			
	diuron (17.6)	A	10 litre	\$ 281.25
Cornox CWK	benazolin (30.0)	N	5 litre	\$ 279.69
Dacthal W75	chlorthal dimethyl (75.0)	Y	10 kg	\$ 322.97
Dalapon	dalapon (74.0)	Y	25 kg	\$ 216.87
Dicamba 20	dicamba (20.0)	N	20 litre	\$ 408.00
Dicambone	dicamba (75.0)	I	20 litre	\$ 255.06
Dinoseb	dinoseb (36.0)	I	20 litre	\$ 82.63
Dowpon 740	dalapon (74.0)	W	25 kg	\$ 288.13
Dual 960 EC	metolachlar (96.0)	C	200 litre	\$5985.87
Duplosan DP	dichlorprop (60.0)	A	10 litre	\$ 194.75
Enide 50 W	diphenamid (50.0)	Y	25 kg	\$ 711.60
Envoy	cyazazine (11.8)	S	2.8 kg	\$ 34.99
	MCPA (53.5)	S	12 kg	\$ 107.39
Erradicane	EPTC (72.0)	I	18.9 litre	\$ 200.69
Escort 60DF	metasulfuron (60.0)	D	500 g	\$ 420.00
Express		D	200 g	\$ 41.44
Faneron 50	bromofenozin (50.0)	C	2 kg	\$ 116.77
Fodderkleen	chlornitrofen (20.0)	W	5 litre	\$ 74.65
	picloram (1.25)	W	20 litre	\$ 278.17
Foresite	oxadiazon (40.0)	P	5 litre	\$ 209.40

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Fusilade	fluazifop-butyl (25.0)	I	5 litre	\$ 170.47
Gallant	haloxyfop (10.0)	W	20 litre	\$ 700.63
Gardoprim FW	terbuthylazine (50.0)	C	20 litre	\$ 223.34
Garlon 520	picloram (5.0)	W	5 litre	\$ 157.22
	triclopyr (19.3)	W	20 litre	\$ 593.60
Gesagard WP	prometryn (50.0)	C	2 kg	\$ 71.42
Gesamil 50WP	propazine (50.0)	C	2 kg	\$ 62.81
Glean 75DF	chlorsulfuron (75.0)	D	200 g	\$ 255.60
Glean Twin	chlorsulfuron/Bromoxynil	D	200 g	\$ 296.40
Glyphosate	glyphosate (36.0)	N	20 litre	\$ 387.60
Goal	oxyfluorfen (24.0)	R	5 litre	\$ 250.00
Goaltix	metamitron (70.0)	B.	5 kg	\$ 414.94
Gramoxone	paraquat (20.0)	I	20 litre	\$ 344.44
Granstar		D	200 g	\$ 187.50
Grasp		I	5 litre	\$ 203.56
Grazon	trichlopyr (60.0)	W	200 litre	\$ 7694.78
Hi-Ester 2,4-D	2,4-D butyl ester(72.0)	W	200 litre	\$ 1600.00
Hyvar X	bromacil (80.0)	D	2.5 kg	\$ 163.13
Igran 500FW	terbutryn (50.0)	C	5 litre	\$ 186.50
Karmex	Diuron (80.0)	D	2.5 kg	\$ 53.75
Kerb 50W	propyzamide (50.0)	R	5 litre	\$ 225.78
Krovar	bromacil(40)& diuron(40)	D	2.5 kg	\$ 106.25
Lasso M/Tech	alachlor (48.0)	M	10 litre	\$ 141.06
Lexone 75 DF	metribuzin (75.0)	D	2.5 kg	\$ 285.94
Linurom WP	linuron (50.0)	D	2.0 kg	\$ 46.21
Linuron DF	linuron (50.0)	D	2.5 kg	\$ 68.75
Lontrel	MCPB (50.0)	W	20 litre	\$ 336.00
MCPA	MCPA (37.5)	N	200 litre	\$ 1120.80
MCPA	MCPA (37.5)	P	200 litre	\$ 975.00
MCPA	MCPA (37.5)	W	200 litre	\$ 1014.60
MCPB	MCPB (40.0)	N	200 litre	\$ 1588.80
MCPB	MCPB (40.0)	W	200 litre	\$ 1587.60
Mosskiller	pentachlorophenol (PCP)	S	20 litre	\$ 174.50
Nortron	ethofumesate (20.0)	I	5 litre	\$ 115.00
Paraquat	paraquat (20.0)	W	20 litre	\$ 297.15
Permazol SDA		P	20 kg	\$ 295.20
Phytazol A	dalapon (37.0)			
	amitrole (25.0)			
	sodium thiocyanate (4.5)	W	15 kg	\$ 215.57
Preeglon E	diquat (6.0)	I	5 litre	\$ 69.25
	paraquat (12.0)	I	20 litre	\$ 263.19
Prefix D	chlorthiamid (7.5)	S	5.5 kg	\$ 55.46
	dichlobenil (6.75)	S	20 kg	\$ 202.16
Prime Extra	metolachlar (32.0)			
	terbuthylazine (18.0)	C	20 litre	\$ 318.88
Probe 75WDG	methazole (75.0)	Y	10 kg	\$ 1275.30



Proturf	dichlorprop (27.4)			
	ioxynil (5.4)			
	bromoxynil (36.0)	P	5 litre	\$ 69.88
	MCPA (11.9)	P	20 litre	\$ 257.82
Pyramin FL	chloridazon(43.0)	A	3 litre	\$ 122.85
Ramrod FLO	propachlor (48.0)	M	9.47 litre	\$160.47
Reglone	diquat (20.0)	I	20 litre	\$ 359.82
Ronstar SG		P	25 kg sack	\$ 161.50
Roundup	glyphosate (36.0)	M	20 litre	\$ 360.00
Salvo	dicamba (1.7)			
	dichlorprop (23.3)			
	MCPA (10.7)			
	mecoprop (21.0)	S	20 litre	\$ 211.21
SDA	simazine,dalapon,amitrole	W	15 kg	\$ 234.00
Selecta 4CPA	4-CPA (40.0)	W	5 litre	\$ 76.25
Semeron	desmetryn (25.0)	C	2 kg	\$ 120.74
Sencor 70 DF	metribuzin (70.0)	B	2 kg	\$ 204.56
Simazine	simazine (50.0)	N	20 litre	\$ 185.00
Simazol 5A	simazine (50.0)	W	20 litre	\$ 188.75
Sinbar	terbacil (80.0)	D	1 kg	\$ 88.38
Sniper	flamprop methyl (7.0)	S	20 litre	\$ 300.00
Sodakem	sodium chlorate (59.0)	N	25 kg	\$ 126.00
Spraygrow	diquat (2.5)	I	5 litre	\$ 72.81
	paraquat (15.0)	I	20 litre	\$ 263.00
Squadron	glyphosate (18.0)	B	10 litre	\$ 128.44
Stomp 330E	pendimethalin (33.0)	Y	20 litre	\$ 462.15
Strel	propanil (25.0)	R	208 litre	\$2870.41
Surflan FLO	oryzalin (75.0)	P	5 litre	\$ 184.38
Tandex LC	methamidophos (60.0)	C	200 litre	\$6290.40
Topogard FW	terbutryn (35.0)			
	terbuthylazine (15.0)	C	5 litre	\$ 170.62
Tordon Brush	picloram (10.0)	W	20 litre	\$1107.00
killer NF	tricopyr (30.0)	W	200 litre	\$10281.60
Tordon 2G	picloram (2.0)	W	25 kg	\$ 237.20
Tordon 50D	picloram(2.0),2,4-D(20.0)	W	20 litre	\$ 403.20
Torpedo	diquat (10.0)	I	20 litre	\$ 293.75
Tramat	ethofumesate (20.0)	Y	20 litre	\$ 648.00
Treflan	trifluralin (40.0)	P	20 litre	\$ 183.00
Tribunil WP	methabenzthiazuron (70)	B	1.5 kg	\$ 79.37
Tricornox	dicamba (1.6) plus			
special	benazolin (2.5) plus			
	dichlorprop (35.6)	N	200 litre	\$1404.00
Triflur 40	trifluralin (40.0)	N	20 litre	\$ 190.22
Trimec	dicamba (1.87) plus			
	MCPA (15.0) plus			
	mecoprop (60.0)	I	20 litre	\$ 246.66
Tropotox Plus		P	200 litre	\$1522.50

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Ustilan WP	ethidimuron (70.0)	B	20 kg	\$1579.20
Velpar 20G	hexazinone (20.0)	D	20 kg	\$ 540.00
Velpar 90	hexazinone (90.0)	D	25 kg	\$2185.50
Velpar L	hexazinone (25.0)	D	20 litre	\$ 643.20
Versatill	clopyralid (30.0)	W	20 litre	\$1249.00
Vindex SDA	simazine (40.0)			
	delapon (25.0)			
	amitrole (12.5)	Y	2.5 kg	\$ 85.31
Vorox TDA	terbutylazine (40.0)			
	amitrole (12.5)	C	2 kg	\$ 46.26
	dalapon (26.0)	C	20 kg	\$ 415.14
Weedazol 4L	amitrole (40.0)	W	5 litre	\$ 68.75
	ammonium thiocyanate(10.0)	W	20 litre	\$ 237.50
Zero	quizalofop-ethyl (10.7)	S	5 litre	\$1260.00

#### 2.10.4 Insecticides

Refer to section 2.10 for key to Company codes.

For full information regarding common names, propriety names and percent active ingredient, refer to the New Zealand Agrichemical Manual (third edition) published by Agrichemical Manual Partnership.

<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	\$ 187.75
Actellic EC		I	5 litre	\$ 176.81
Actellic S.G.		I	90 g	\$ 11.32
Ambush 50 E.C.	permethrin (50.0)	I	5 litre	\$ 804.31
Apollo 50 SC	clofentezine (50.0)	Y	2 litre	\$ 449.11
Attack	pirimiphos (47.5)	I	5 litre	\$ 154.79
Azinphos-methyl	Azinphos-methyl (50.0)	B	15 kg	\$ 399.00
Bactospeine	bacillus thuringiensis	W	2 kg	\$ 108.63
Carbaryl 50F	carbaryl (50.0)	N	20 litre	\$ 216.00
Carbaryl 80W	carbaryl (80.0)	N	15 kg	\$ 246.00
Caterkill	fenitrothion (60.0)	N	20 litre	\$ 276.00
Chlorpyrifos	chlorpyrifos (48.0)	N	20 litre	\$ 828.00
Counter	terbufos (20.0)	S	20 kg	\$ 246.22
Cymbush 10 EC	cypermethin (10.0)	I	1 litre	\$ 59.50
Decis EC	deltamethrin (2.5)	N	5 litre	\$ 256.50
Diazinon FLO	diazinon (80.0)	Y	20 litre	\$ 522.00
Dichlorvos E	dichlorvos (100.0)	N	5 litre	\$ 158.13
Dimilin 25W	diflubenzuron (25.0)	N	500 g	\$ 102.54
Dipel 2 X	bacillus thuringiensis	N	500 g	\$ 25.00
Disyston 10G	disolfoton (10.0)	B	15 kg	\$ 79.02
Ekamet 50 EC	etrimfos (52.0)	N	5 litre	\$ 265.31
Ekatin	thiomton (25.0)	N	5 litre	\$ 100.50
Folidol M50	parathion-methyl (60.0)	B	25 litre	\$ 715.50
Folimat	omethoate (58.0)	B	5 litre	\$ 279.19

Folicur	omethoate (58.0)	B	5 litre	\$ 239.11
Gesapon 20G	diazinon (20.0)	C	22 kg	\$ 190.91
Gesapon 80EC	diazinon (80.0)	C	20 litre	\$ 545.46
Gusathion M35	azinphos methyl (25.0) captan (53.0)	B	20 kg	\$ 399.50
Hallmark	esfenvalerate (5.0)	S	1 litre	\$ 82.59
Imidan	phosmet (75.0)	S	3 kg	\$ 67.63
Jolt WP	chlorpyrifos (50.0)	A	2 kg	\$ 87.30
Kelthane 35	dicofol (35.0)	R	30 kg	\$ 504.00
Lannate L	methomyl (20.0)	D	20 litre	\$ 456.00
Lindane pellet	lindane (20.0)	S	25 kg	\$ 201.56
Lorsban 40EC	chlorpyrifos (40.0)	W	20 litre	\$ 712.16
Lorsban 50WP	chlorpyrifos (50.0)	W	4 kg	\$ 185.04
Maldison 50 EC	maldison (50.0)	Y	20 litre	\$ 167.58
Mavrik aquaflo	fluvalinate (24.0)	Y	1 litre	\$ 161.25
Mesuroil 75 WP	methiocarb (75.0)	B	2 kg	\$ 231.25
Mesuroil Snail	methiocarb (2.0)	B	5 kg	\$ 72.75
Metasystox	demeto-s-methyl (25)	B	25 litre	\$ 450.00
Miral 10G	iazophos (10.0)	C	20 kg	\$ 240.74
Monitor	methamidophos (60.0)	A	200 litre	\$5983.20
Nemacur 400 EC	fenamiphos (40.0)	B	20 litre	\$ 986.64
Neoron 500 EC	boropropylate (50.0)	C	2 litre	\$ 98.68
Nissorun WP	hexythiozox (10.0)	P	1 kg	\$ 270.90
Nuvan 1000 EC	dichlorvos (100.0)	C	1 litre	\$ 26.29
Omite 30W	propargite (30.0)	N	4 kg	\$ 118.50
Orthene 75	acephate (75.0)	N	10 kg	\$ 30.00
Perfection S	dimethoale (50.0)	A	10 litre	\$ 166.22
Peropal	azocylotin (25.0)	B	2 kg	\$ 116.28
Phorate	phorate (20.0)	N	15 kg	\$ 108.44
Phosdrin 400	mevinphos (40.0)	S	2.5 litre	\$ 115.56
Pirimor 50	pirimicarb (50.0)	I	500 g	\$ 23.11
Ripcord 20 EC	cypermethrin (20.0)	S	2.5 litre	\$ 242.89
Rogor E	dimethoate (40.0)	Y	20 litre	\$ 276.48
Saprene	triforine (18.3) plus acephate (11.4)	N	1 litre	\$ 31.25
Sumicidin 20WP	fenvalerate (20.0)	S	1 kg	\$ 120.00
Supracide 40	methidathion (40.0)	C	5 litre	\$ 183.94
Tamaron	methamidophos (60.0)	B	200 litre	\$6290.40
Thimet 20G	phorate (20.0)	I	15 kg	\$ 105.60
Thiodan 35EC	endosulfan (35.5)	N	20 litre	\$ 375.00
Thiofor	endosulfan (35.5)	B	20 litre	\$ 475.00
Thuricide H.P.	bacillus thuringiensis	Y	1 kg	\$ 50.00
Tokuthion EC	prothiofos (50.0)	B	5 litre	\$ 396.38
Vydate G	oxamyl (10.0)	D	3.8 litre	\$ 145.53

### 2.10.5 Fungicides

Refer to section 2.10 for key to Company Codes.

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Aliette	fosetyl-aluminium(80.0)	P	1 Kg	\$ 59.50
Antracol 70 WP	propineb (70.0)	B	25 kg	\$ 242.19
Apron 70 SD	metaxyl (35.0)			
	captan (35.0)	C	20 kg	\$2156.64
Bavistan FL	carbendazim (50.0)	A	5 litre	\$ 279.50
Baycor 50 WP	triazole (50.0)	B	2 kg	\$ 164.00
Bayleton 5 DF	triazole (5.0)	B	2 kg	\$ 80.42
Bayleton 125EC	triazole (10.0)	B	5 litre	\$ 125.00
Baytan IM	triadimenol (15.0)	B	10 kg	\$ 837.50
Benlate 50DF	benomyl (50.0)	D	1 kg	\$ 71.63
Botran 75 WP	dichloran (75.0)	Y	2.5 kg	\$ 141.68
Bravo 500F	chlorothalonil (50.0)	Y	20 litre	\$ 440.82
Calirus	benodanil (50.0)	A	1 kg	\$ 63.34
Calixin	tridemorph (75.0)	A	20 litre	\$ 770.18
Captan 80WP	captan (80.0)	Y	20 kg	\$ 278.46
Cereous	triadimenol (25.0)	B	5 litre	\$ 318.22
Champion		Y	10 kg	\$ 112.50
Copper Oxychloride (50.0)		Y	4 kg	\$ 26.45
Corbel	fenpropimorph (75.0)	A	5 litre	\$ 208.13
Dithane M45	mancozeb (75.0)	R	25 kg	\$ 125.00
Dodine 400	dodine (40.0)	N	20 litre	\$ 300.00
Euparen DF	dichlofluanid (50.0)	B	2 kg	\$ 125.00
Fongarid 25 WP	furalaxyl (25.0)	Y	500 g	\$ 108.47
Fungaflor WSP	imazalil (75.0)	N	100 g	\$ 93.75
Galben	benalaxyl (8.0)	I	5 kg	\$ 156.25
	mancozeb (65.0)	I	25 kg	\$ 755.25
Gusathion M35	azinphos methyl (25.0)			
	captan (53.0)	B	20 kg	\$ 399.50
Impact	flutriafol (12.5)	I	5 litre	\$ 225.01
Karathane	dinocap (18.5)	R	20 kg	\$ 312.00
Kocide 101	cupric hydroxide (50.0)	S	10 kg	\$ 105.53
Mancozeb 80W	mancozeb (80.0)	N	25 kg	\$ 172.50
Maneb M22	maneb (80.0)	R	25 kg	\$ 240.00
Manex II	maneb (45.0)	A	10 litre	\$ 68.75
Manzate 200DF	mancozeb (80.0)	D	22.7 kg	\$ 175.70
Melprex		Y	20 litre	\$ 392.44
Mistral	fenpropimorph (75.0)	P	5 litre	\$ 231.56
Nimrod	bupirimate (25.0)	I	10 kg	\$ 267.89
Nustar	flusilazol (20.0)	D	500 g	\$ 119.23
Octave 50W	prochloraz (46.2)	N	500 g	\$ 106.25
Orthocide Dust	captan (10.0)	N	25 kg	\$ 156.25
Orthocide SP	captan (65.0)	N	25 kg	\$ 674.40

Ortocide W	captan (80.0)	N	25 kg	\$ 328.13
Pallinal	metiram (60.0)	A	20 kg	\$ 314.60
	nitrothal-isopropyl (12.5)			
Pallitop	metiram (3.2)	A	20 kg	\$ 454.56
	nitrothal-isopropyl (48.0)			
Phaltan 50W	folpet (50.0)	N	25 kg	\$ 630.00
Polyram DF	metiram (80.0)	A	25 kg	\$ 324.00
Previcur N	propamocarb (60.0)	Y	1 litre	\$ 145.03
Ridomil M2 WP	metalaxyl (8.0)	C	2.5 kg	\$ 76.00
	mancozeb (64.0)	C	20 kg	\$ 660.62
Ridomil 5G	metalaxyl (5.0)	C	5 kg	\$ 66.00
Rizolex	tochlorfos methyl(10.0)	S	50 kg	\$1300.54
Ronilan FL	vinclozolin (50.0)	A	20 litre	\$1524.72
Rovral WP	iprodione (50.0)	P	1 kg	\$ 97.81
Rovral Flo	iprodione (25.0)	P	5 litre	\$ 196.88
Rubigan 12EC	fenarimol (12.0)	P	5 litre	\$ 422.64
Rubigan FLO	fenarimol (12.0)	P	1 litre	\$ 90.75
Saprene	triforine (18.3) plus acephate (11.4)	N	1 litre	\$ 31.25
Saprol	triforine (19.0)	N	20 litre	\$ 758.40
Serinal 40 FL	chlozolate (46.9)	S	5 litre	\$ 491.44
Sportak 45 EC	prochloraz (45.0)	N	5 litre	\$ 200.00
Sulflo	sulphur (80.0)	Y	20 litre	\$ 107.25
Sumisclex FL	procymidane (25.0)	I	20 litre	\$ 883.80
Syllit	dodine (40.0)	S	20 litre	\$ 399.20
Systhane 40W	myclobutanyl (40.0)	R	113 g	\$ 30.06
Thiovit 80W	sulphur (80.0)	N	30 kg	\$ 136.80
Thiram WDG	thiram (80.0)	N	20 kg	\$ 220.80
Topas MZ 61 WP	penconazole (25.0) mancozeb (60.0)	C	18 kg	\$ 425.24
Topsin M-4A	thiophanate-methyl (40)	W	5 litre	\$ 160.94
Vincit	flutriafol (5.0) imazalil sulphate (5.0)	I	5 kg	\$ 375.00
Vitaflo 200	carboxin (20.0) thirau (20.0)	N	20 litre	\$ 487.50

### 2.10.6 Wetting, Spreading and Marking Agents

Refer to section 2.10 for key to Company Codes.

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Company</u>	<u>Unit Size</u>	<u>Retail Price</u>
Alar 85	daminozide (85.0)	N	500 g	\$100.00
Citowett sticker/spread	alkylaryl polyglycol ether	A	20 litre	\$ 159.50
Contact	non ionic surfactant	I	20 litre	\$ 147.25
Multi-film X90	alkyl polyoxyethylene	W	20 litre	\$ 177.14

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### 2.10.7 Penetrants

Pulse (for Roundup herbicide)	M	5 litre	\$ 146.19
Triton X45	R	20 litre	\$ 223.75
Triton B1956	R	200 litre	\$2288.00

### 2.10.8 Growth Regulants

Cultar	paclobutrazol (25.0)	I	1 litre	\$ 240.00
Cycocel 750	chlomequat (75.0)	A	210 litre	\$2016.00
Ethrel	chlorthalopron (4.8)	W	10 litre	\$ 456.00
Fatol Super	fatty alcohols (73.0)	N	200 litre	\$1584.00
M H 30	maleic hydrazide (30.0)	A	200 litre	\$2646.00
Promalin	gibberellic acid (1.9)	N	500 ml	\$ 200.00
Terpal	mepiquat chloride(30.5) chlorthalopron (15.5)	A	5 litre	\$ 175.94

### 2.10.9 Oil Sprays

D-C Tron	Int. spraying oil	A	205 litre	\$ 504.30
Sunspray	oils-mineral- insecticidal (97.0)	N	5 litre	\$ 26.05
		N	20 litre	\$ 87.15

### 2.10.10 Soil Fumigants

Basamid G	dazomet (99.0)	A	20 kg	\$ 259.85
Di-trapex	methylisothiocyanate	N	50 litre	\$ 900.00

### 2.10.11 Root Forming Hormones

Seradix 1 & 2	beta-indolyl butyric acid	P	600 g	\$ 28.13
Seradix No.3	beta-indolyl butyric acid	P	600 g	\$ 45.76

### 2.10.12 Spraying Costs Aerial and Ground

#### Aerial Spraying

Helicopters (NZ Ltd):

Application rate:	100 litre = \$ 56/ha	300 litre = \$152/ha
	200 litre = \$110/ha	400 litre = \$185/ha

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	\$890/hour
AS350B Squirrel	\$1040/hour
SA315B Lama	\$1140/hour

#### Ground Spraying

Rates vary depending on chemical being used, application rate and crop being sprayed.  
In the region of \$14.00 to \$20.00 per ha.

## 2.11 SELLING, HANDLING, PROCESSING CHARGES, AND LEVIES

### 2.11.1 Yard Fees

Usually on a per head basis and varies between the various sale yards. As an example the charges made for one Canterbury sale yard have been included.

Addington: Canterbury Sale Yards Co.,Ltd

Sheep and lambs	\$0.43	Calves	\$2.46
Fat cattle	\$2.96	Bulls	\$5.28
Store cattle	\$2.46	Fat pigs	\$1.06
Dairy cows	\$2.96	Store pigs	\$0.84

### 2.11.2 Commissions on Stock sold through a Stock and Station Agent

	<u>Sale Yards</u>		<u>Clearing Sales</u>
Sheep	5.50%	Sheep	5.50%
Fat Cattle	5.50%	Store Cattle	5.50%
Store Cattle	5.50%	Pigs	6.50%
Vealers	5.50%	Dairy Cows	7.50%
Bulls Stud	8.50%	Implmnts & Sun.	15.00%
Dairy Cattle	7.50%	Furniture	15.00%
Pigs	6.25%	Horses	8.00%
Deer	5.50%	Stud Cattle	7.50%
Grazing	10.00%	Stud Sheep	8.50%
Goats		Motorised plant	10.00%
- P/bred, G1	8.50%	Dogs	7.50%
- G2 to Feral	5.50%		

North Island stock firms levy approximately 14c per head for sheep and \$1.40 per head for cattle, payable in equal amounts by vendor and buyer.

### 2.11.3 Wool Charges

The New Zealand Wool Board estimates for the 1988/89 were as follows:

For greasy wool worth \$5.02 per kilogram at auction the following are illustrative "Farm to Auction" costs (cents per kilogram):

	<u>Cents per kg</u>
Transport to store (80 km)	5.4
Insurance (sheep's back to store)	0.6
Brokers charges*	11.0
Wool Board Levy (6%)	<u>30.1</u>
	48.0

\* Broker's charges cover receiving, warehousing, weighing, lotting, cataloguing and advertising. Re-classing, binning and interlotting are not included.

### 2.11.4 Killing Charges

#### Typical 1989 Charges/Head:

(i)Lamb 13kg Carcass 1.1kg Wool Pull

Killing Charge	\$10.50
Polythene Bag	\$ 0.90
Wool Charge	\$ 2.45
Pelt Charge	\$ 1.60
Storage (6 weeks)	<u>\$ 1.00</u>
	<u>\$16.45</u>

(ii)Mutton 20kg Carcass 0.8kg Wool Pull

Killing Charge	\$13.20
Polythene Bag	\$ 1.00
Wool Charge	\$ 2.75
Pelt Charge	\$ 1.85
Storage (8 weeks)	<u>\$ 2.05</u>
	<u>\$20.85</u>

(iii)P1 Steer 260kg @ 65% yield = 169kg

Killing Charge	\$165.00
Hide Charge	\$ 2.00
Storage (8 weeks)	<u>\$ 7.90</u>
	<u>\$174.90</u>

(iv)Manufacturing Cow 160kg @ 64% yield = 102.4kg

Killing Charge	\$130.00
Hide Charge	\$ 2.00
Storage (6 weeks)	<u>\$ 3.60</u>
	<u>\$135.60</u>

(v) Manufacturing Bull 235kg @ 68.5% yield = 161kg

Killing Charge	\$160.00
Hide Charge	\$ 2.00
Storage (6 weeks)	<u>\$ 5.70</u>
	<u>\$167.70</u>

Source: Farm Link, October 1989.



## Deer - Approximate Cost to Export - Fallow and Red Compared

(-includes killing charges)

	2 Fallow AP 1 @ 26kg	1 Red Deer AP2-L @ 52kg
Schedule \$/kg	5.70	7.25
Gross to Farmer	296.40	377.00
Less GIB Levy @ 28.2c/kg	14.66	14.66
Less MAF Fee @ \$4.50/hd	9.00	4.50
Headage @ \$6.50/hd	13.00	6.50
Slaughter	62.00	45.00
Less skin 2 fallow = 1 red	26.00	26.00
Cost to export ex hook	321.74	358.34
divided by 52kg	6.19	6.89
Standard boning/packing charge	27.56	27.56
Extra vacuum packaging for 4 fallow legs	2.40	-
Extra labels @ 7c	0.14	-
Extra Carton	0.55	-
Sub Total	352.39	385.90
Yield 79%	82%	
Cost per kg packed weight	8.57	9.06
Interest Red 1 Month @ 16%		0.13
Interest Fallow 3 Months @ 16%	0.36	
Storage	0.15	0.05
Ocean Freight for extra packaging	0.07	0.00
<b>Total Cost/kg FOB</b>	<b><u>\$9.15</u></b>	<b><u>\$9.24</u></b>

Source: NZ Farmer, September 1989.

### 2.11.5 Livestock Levies

Levies Per Head:	Cows	Other Adult Cattle	Calves(not exceeding 27 kg)	Vealers (27 - 159 kg)
Federated Farmers	\$0.64	\$0.29	\$0.391	\$0.293
Disease Eradication	\$2.44	\$2.44		\$2.44
Meat Producers Brd.	\$2.40	\$2.40	\$0.12	\$1.20
<b>Total Levies</b>	<b>\$5.48</b>	<b>\$5.13</b>	<b>\$0.511</b>	<b>\$3.933</b>
Levies per head:	Lambs	Sheep & goats	Pigs	
Federated Farmers	\$0.029	\$0.029	\$0.01711	
Meat Producer Board	\$0.240	\$0.350		
Pork Industry Board			\$3.938	
<b>Total Levies</b>	<b>\$0.269</b>	<b>\$0.379</b>	<b>\$3.95511</b>	

**Prices Exclude GST**

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## Deer/Game Industry Board Levies

Current Game Industry Board Levies are as follows:

Venison -

\$0.28/kg carcass weight on all farmed deer going through Deer Slaughter Premises and 4.44c/kg carcass on feral deer through Game Packing Houses.

Source: GIB Report Spring 1989.

Velvet -

\$1.00/kg green weight for Fallow velvet and \$5.00 per kg green weight on all velvet other than Fallow deer.

Other Velvet Costs: (Fortex Group)

- 3 Sales per season - Seller charged 3.5% for consolidation and grading costs.
- Buyer charged 2%.

Velvet is graded in 100kg lots

Farmers are able to sell grade lines of 100kg or more.

Velvet is graded to Game Industry Board Standards and the boards levy is deducted.

### 2.11.6 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 following are the Herbage Seed Subsection levies 1990.

	<u>Cultivar</u>	<u>(Cents/kg of seed)</u>
Red Clover	Grasslands Hamua	0.99
	Grasslands Turoa/Pawera	0.88 and 1.75
White Clover	Grasslands Huia/Pitau	1.05
	Grasslands Tahora	1.23
	Overseas Cultivars	1.23
Cocksfoot	Grasslands Apanui	0.96
	Grasslands Wana/Kara/Saborto	1.05
Crested Dogstail		0.77
Lotus	Lotus Corniculatus/Maku	3.00 and 5.25
Prairie Grass	Grasslands Matua	0.35
Italian Ryegrass	Grasslands Paroa/Tama	0.28 and 0.39
	Moata/Concord	0.49 and 0.42
Perennial Ryegrass	Grasslands Ruanui, Nui	0.385
	Grasslands Droughtmaster	0.425
	Yatsyn/Ellett	0.42
Hybrid Ryegrass	Grasslands Ariki/Manawa	0.385 and 0.42
Timothy	Grasslands Kahu	1.05
Browntop	Grasslands Egmont/Sefton	2.10 and 1.75
	NZ Browntop	1.75
Yorkshire Fog	Massey Basyn	0.525
Lucerne	All Cultivars	1.40
Phalaris	Grasslands Maru	1.40
Tall Fescue	Grasslands Roa	2.10
Yarrow		4.20

### 2.11.7 Wheat and Maize Growers Levies

Wheat Levies \$2.85 per tonne

- includes levies payable by grower for wheat insurance (\$1.80), economic research (\$0.22), administration (\$0.33) and plant breeding (\$0.50).

Maize Levies \$0.05 per tonne

### 2.11.8 Potato Levy

The Potato Growers Federation has a compulsory levy of 0.375% of the gross value of potatoes.

### 2.11.9 Consolidated Dressing and Store Handling Charges

These rates include receiving, delivering, sampling weighing, dressing, brushing of sacks and disposal of offal.

Hodder and Tolley Ltd:

Ryegrasses	- Ruanui, Tama, Manawa, Ariki, Paroa and Nui	15.00 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 percent offal and field dressed cocksfoot from 25 to 33 percent offal.

Turnips, Chou Moellier, Kale & 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	\$2.60 per sack
Separating mixed oats and Ryegrass	\$2.60 per sack

Slurry treating - \$29.30 per tonne plus materials.

Blending clovers and blending grass seeds - depends on time needed.

Wheat and Ryecom	\$45.00 per tonne
Barley	\$50.00 per tonne
Field Peas and Lupins	\$50.00 per tonne
Garden Peas and Beans	\$60.00 per tonne
Oats (dressing and clipping)	\$50.00 per tonne
Linseed	\$65.00 per tonne or by negotiation

### **2.11.10 Horticultural Levies**

#### **Berryfruit (As at January 1990)**

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 - \$160.00

8000 sq m and over - \$295.00

#### **Blackcurrants (As at January 1990)**

A levy of 2.0 cents per kilogram shall be paid in respect of all blackcurrants sold for processing or export (over and above the general berryfruit levy).

#### **Blueberries (As at January 1990)**

All growers pay 20c per kilogram for all blueberries sold fresh or for export. In respect to this, the exporter adds a further 4c/kg (voluntary) therefore levy is 24c/kg.

#### **Boysenberries (As at January 1990)**

4c per kilogram fixed applies for all export and processed boysenberries.

#### **Raspberries (As at January 1990)**

North Island raspberries under The Berry Federation. Flat rate of \$25/garden.

South Island raspberries divided into three regions, each with own levy system.

Canterbury: Levy of \$3.75 per decare, if a producer. To be a producer, must have a tenth of a hectare. Maximum of \$300.

#### **Avocados:**

Growers are levied 60c/tray and exporters are levied at 10c/tray.

#### **Citrus Fruits:**

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

Source: NZ Farmer, February 1989.

#### **Orchard Levies:**

Orchard Levies applies to all fruit grown in orchard type conditions except berryfruits.

(e.g. Kiwifruit, Pip and stonefruit).

\$25 per ha with a minimum of \$120 and a maximum of \$1000.

#### **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

#### **Voluntary Levies**

Asparagus: - 1.6% of gross value on fresh domestic produce or produce for processing

- 3.4c/kg on fresh export produce

Tomatoes: - 0.5% on all fresh produce

## 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 may be used as a guide only.

### 2.12.1 Total Repairs and Maintenance per Farm

Under the current economic climate and depending on the type of farm, location, season etc, typical total expenses per year (excluding vehicle expenses) range from:

- a) Dairy Farms - \$5,000 to \$9,000.
- b) Sheep and Beef Farms - \$4,000 to \$7,000.

### 2.12.2 R & M - 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:

	<u>% capital value per annum</u>
Dwellings	1 - 3% ) depending upon the
Farm buildings	1 - 3% ) age of the building
Piggeries	2 - 5%
Water supply	Up to 5% depending on water type
Implements and plant	7.5-15% depending upon use
Roads, tracks and culverts	1 - 5% depending on locality
Yards and dip	2.5- 5%

### 2.12.3 R & M - 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 35-45 cents per km
Tractors	allow \$4 to \$20 per hour depending on size and age (or 80% of purchase price spread over the economic life of tractor - see examples in Section 2.13.3)
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. Depending on the locality and type of farm, typical total vehicle running expenses (including fuel, oil, repairs and maintenance, registration etc) on all farm vehicles including private car use, are as follows:

Dairy Farms - \$6,000 to \$10,000

Sheep and Beef - \$7,500 to \$11,000

For details see individual items in this section and refer to Section 2.13.3

**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

#### (i) Guide for Fuel Consumption on Minimum Cultivation

Please note this is only a guide (based on .26 litres per kw hr).

16 HP	11.5 kW	2.99 litres per hour
30 HP	22.0 kW	5.72 litres per hour
40 HP	30.0 kW	7.80 litres per hour
50 HP	37.0 kW	9.62 litres per hour
64 HP	48.0 kW	12.48 litres per hour
75 HP	55.7 kW	14.48 litres per hour
80 HP	60.0 kW	15.60 litres per hour
103 HP	77.2 kW	20.07 litres per hour
160 HP	119.0 kW	30.94 litres per hour

#### (ii) 30 kW (40 HP) Tractor - Total Running Costs.

Economic Life 3500 hours (5yrs) 700 hours per year

Initial Cost \$22,000; Resale Price \$ 7,000

Fixed costs per annum:

Opportunity cost \$22,000 at 8%(Real)	\$1,760.00	
Replacement cost \$22,000 - \$7,000		
\$15,000 x sinking fund factor		
(8% for 5 years) 0.170456	\$2,556.84	
Annual licencing fee	\$ 77.67	
Insurance \$46 plus .55% on balance		
over \$5,000	\$ 139.50	
		\$4,534.04
 Total fixed cost per hour (700 hours/year)		 \$6.48

Variable costs per hour:

Fuel (.26 litres/kW hr) 7.8 litres at 57.9c/litre	\$4.52
Oil and filters 15% of fuel cost	\$0.68
Repairs and maintenance 80% of purchase price	
over economic life (3500 hours)	\$5.03

Total variable costs per hour		<u>\$10.23</u>
Total cost (fixed and variable) per hour		\$16.71
Total per ha (assuming .607 ha per hour)		\$27.52
Including labour at \$10 per hour	Total per hr	\$26.71
	Total per ha	\$44.00

(iii) 48 kW (64 HP) Tractor - Total Running Costs.

Economic Life 3500 hrs (5 years) 700 hours per year

Initial Cost \$35,250; Resale Price \$12,250

Fixed costs per annum:

Opportunity costs \$35,250 at 8% (Real) \$ 2,820.00

Replacement cost (\$35,250 - \$12,250)

\$23,000 x Sinking fund factor

(8% for 5 years) 0.170456

\$ 3,920.49

Annual licencing fee

\$ 77.67

Insurance \$46 plus .55% on balance  
over \$5000

\$ 212.38

\$7,030.54

Total fixed cost/hour assuming 700 hours/yr

\$ 10.04

Variable costs per hour:

Fuel (.26 l/kW/hr) 12.48 litres at 57.9c/litre \$7.23

Oil and filters 15% of fuel cost \$1.08

Repairs and maintenance 80% of purchase price  
over economic life (3500 hours)

\$8.06

Total variable cost per hour

\$16.37

Total cost (fixed and variable) per hour

\$26.41

Total per ha (assuming .81 ha per hour)

\$32.61

Including labour at \$10 per hour

Total per hour

\$36.41

Total per ha

\$44.95

(iv) 73 kW (105 HP) Tractor - Total Running Costs.

Economic Life 3500 hrs (5 years) 700 hours per year

Initial Cost \$74,500; Resale price \$20,000

Fixed costs per annum:

Opportunity cost \$74,500 at 8% (real) \$5,960.00

Replacement cost (\$74,500 - \$20,000)

\$54,500 x sinking fund factor

(8% for 5 years) 0.170456

\$9,289.85

Annual licencing fee

\$ 77.67

Insurance \$46 plus .55% on balance  
over \$5,000

\$ 428.25

\$15,755.77

Total fixed costs per year assuming 700 hours/year

\$ 22.51

Variable costs per hour:

Fuel (.26 litres/kWhr) 18.98 litres at 57.9c/litre \$ 10.99

Prices Exclude GST

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Oil and filters 15% of fuel cost	\$ 1.65	
Repairs and maintenance 80% of purchase price over economic life (3500 hours)	\$ 17.03	
Total variable costs/hour (700 hrs/year)		\$ 29.67
Total cost (fixed and variable) per hour		\$ 55.18
Total per ha (assuming 1.05 ha per hour)		\$ 49.69
Including labour at \$10 per hour	Total per hr	\$ 65.18
	Total per ha	\$ 62.08

Note: Header running costs - see section 2.13.7

### 2.13.3 Fuel, Oil and Grease

BP (NZ) Ltd:

Petrol	- Regular (91 octane) 86.9 - 90.9 cents per litre.
	- Super (96 octane) 89.9 - 93.9 cents per litre.
Diesel	- 58 to 61 cents per litre. (retail sales)
LPG	- 56 to 60 cents per litre

These prices include fuel tax of \$0.3756 / litre on Premium, \$0.3700 / litre on Regular and \$0.13 / litre on Diesel. There is a tax rebate of \$0.109 / litre, allowed for diesel when used on farm. See Section 1.15.2.

BP Oil NZ Ltd:

		<u>Wholesale</u>
		<u>Price</u>
Visco 2000	- 60 litre plastic cube	\$190.80
Universal Tractor Oil	- 210 litre plastic cube	\$516.60
Visco 20/40	- 60 litre plastic cube	\$149.40
Gear Oil 80 EP	- 60 litre plastic cube	\$172.80
Hypogear 80W-90 EP	- 20 litre	\$ 57.60
(Transmission oil)	- 60 litre	\$172.80
Power Stroke	- 20 litre drum	\$ 61.60
(Two Stroke Oil)	- 60 litre drum	\$184.80
Multi-purpose grease	- 55 kg	\$222.75
Antifreeze	- 60 litre plastic cube	\$232.80

### 2.13.4 Tyres and Tubes

Firestone: - Tyres

Truck - Steel Belted 8 to 10 ply \$143 to \$290

Tractor

Front - \$127.00 to \$267.00 depending on size and ply.

Rear - \$351.00 to \$872.00 depending on size and ply.

Tubes

Light Truck Tubes \$13.00 to \$19.00

Truck Tubes \$28.00 to \$39.00

Tractor Tubes \$13.00 to \$68.00



### 2.13.5 Registration/Licencing/Road Charges

Every motor vehicle must be registered and licensed before it may be used on the road. A vehicle is registered once in its life, but must be licensed annually.

		<u>Total</u>
<b>Registration</b>		
Farmers' Cars	under 1300 cc	\$248.34
	1301 - 2600 cc	\$286.34
	2601 - 4000 cc	\$313.34
	Over 4001 cc	\$406.34
Cropping Machinery		\$100.29
Trucks		
Gross Laden Weight	up to 3500 kg	\$313.34
	over 3500 kg	
	2 axles	\$514.34
	3 axles	\$537.45
	4 or more axles	\$560.56
Farm Motorcycles		
	under 60 cc and Mopeds	\$ 94.27
	over 61 cc	\$197.32
Trailers	Not Subject to C.O.F. up to 3500kg	\$ 82.82
	over 3500kg	
	2 axles	\$209.82
	3 or more axles	\$232.93
Tractors		\$ 95.27

Note: Includes 12 months licence fee, registration plates and labels.

### **Annual Licencing Fees**

		<u>Total</u>
Cropping Machinery		\$77.67
Farmers Cars		\$147.20
Farmers Motorbikes	- Under 60 cc	\$58.67
	- 61 cc and over	\$142.72
Farmers Trucks	up to 3500kg	\$161.92
	over 3500kg	
	2 axles	\$269.72
	3 axles	\$292.83
	4 or more axles	\$315.94
Tractors exempt Class B		\$77.67
Trailers	up to 3500kg	\$28.22
no C.O.F. Fee	over 3500kg	
	2 axles	\$155.22
	3 axles	\$178.33

Note: 6 month licences are available and are usually approximately 50% of the 12 month fees.

**Prices Exclude GST**

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### **Road User Charges From 1 January 1990**

The Road User Charges system is a "user pays" approach to transport which is intended to levy the heavy transport operators with road user licence fees. The vehicles which must pay Road User Charges are described below, and are required to display either time licences (for off road vehicles) or distance licences (for heavy vehicles used on the roads).

Vehicles required to pay road user charges are:

1. All vehicles, including trailers, whose gross laden weight exceeds 3.5 tonnes.
2. All vehicles which are powered other than by petrol, CNG or LPG.

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.

Unregistered motor vehicles:

Vehicles exempt from registration and annual licence fees.

- Two-wheeled vehicles whose gross laden weight is less than 1 tonne.

Time Licences - 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 computation of rates we have given an example of two costs in what is believed to be an average farm vehicle and distance.

Type 2 i.e. 2 axles with dual wheels on the rear axle

- up to 7 tonnes gross laden weight 5000km \$208.49
- up to 10 tonnes gross laden weight 5000km \$439.02

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
- 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.

#### 2.13.6 Combine Harvester Running Costs

**112 kW (150 HP) Header Harvester - Total Running Costs:**

Economic Life 2000 hours (10 years) 200 hours per year

Initial Cost \$150,000; Resale Price \$ 50,000

Fixed costs per annum:

Opportunity cost \$150,000 at 8%(Real)	\$12,000.00
Replacement cost (\$150,000 - \$50,000)	
\$100,000 x sinking fund factor	
(8% for 10 years) 0.069029	\$ 6,902.90

Annual licence (6 months)	\$ 77.67	
Insurance \$46 plus .55% on balance over \$5000	\$ 843.50	\$19,824.07
Total fixed costs per hour assuming 200 hrs/year		\$ 99.12
Variable costs per hour:		
Fuel (.26 litres/kW hr) 28.08 litres at 57.9c/litre	\$16.26	
Oil and filters 15% of fuel cost	\$2.44	
Repairs and maintenance 80% of purchase price over economic life (2000 hours)	\$60.00	
Total variable costs per hour		<u>\$78.68</u>
Total cost (fixed and variable) per hour		\$177.80
Total per ha (assuming 1.25 ha per hour)		\$142.24
Including labour at \$12 per hour	Total per hr	\$189.80
	Total per ha	\$151.84

## **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. Budgeting control, receiver of all income, and payee of all expenditure for the farmer.

Some approximate examples of accounting costs are as follows:

Dairy Farms	up to 100 cows	\$1000
	100 to 200 cows	\$1400
	200 and over	\$1800
Sheep and Cattle Farms	1000 s.u.	\$1000
	2000 s.u.	\$1800
	5000 s.u.	\$2000
Mixed Farms	1500 - 2000 s.u.	
	and cropping	\$1800

### **2.14.2 Farm Consultancy Charges**

Consultancy charges are usually based on an hourly rate. This can vary but is typically between \$50.00 and \$80.00 per hour.

Travelling and administration expenses and computer time charges are all extra.

#### **Lincoln University Farm Advisory Service**

Lincoln University operates a commercial Farm Advisory Service which provides a full consultancy, advisory, and rural valuation service to the public.

A group of full-time farm management consultants, a horticultural management consultant and a registered valuer are available for consultancy work, property supervision, feasibility studies and valuations. 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. Valuations, reports and loans recommended on rural properties.

The consultancy and valuation fees are based on a rate \$55 per hour (regularly serviced clients) or \$65 to \$75 (special or one off situations). Travel is charged at a rate of 55c per km in the first case and 65c per km in the second.

Enquiries should be addressed to:

The Officer in Charge,  
Farm Advisory Service,  
Lincoln University,  
Canterbury.

### 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 \$700.00

This fee is subject to variation according to the complexity of the agreement and additional work involved above the cost of a standard contract.

All travelling and incidental costs incurred will be charged in addition to the above fees.

All fees are subject to review at the discretion of the Management Committee.

Further information and registration forms may be obtained from:

The Director,  
Property Management Service,  
Lincoln University,  
Canterbury.

### 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 (in general based on an hourly rate) taking into account the nature of the job and expenses incurred by the solicitor or law firm. 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.

#### Stamp Duty

Up to \$50,000 - 1%

\$50,000 - \$100,000 - \$500 plus 1.5% of excess over \$50,000.

Over \$100,000 - \$1,250 + 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 interest in farm land exceeding \$150,000.

If all purchasers are exempt no duty is payable.

### 2.14.4 Real Estate Charges

It should be emphasised these notes are for the guidance of students only.

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.

#### **2.14.5 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 although some valuers still charge on a percentage of value basis and vary depending on the degree of skill or responsibility required, expenses incurred and other factors. Travelling allowance (mileage) is normally charged at the maximum State Service rate.

##### **Example:**

For a Valuation of a 366 ha property in North Canterbury (Value \$430,000):

The valuation would cost \$1200 to \$1500 (Approximately 14 hours involved) depending on time and distance involved in travel, and other expenses.

#### **2.14.6 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 land transaction registration fee is \$35.56 per document unless unusual or complex in which case this fee may be increased.

## 2.15 ADMINISTRATION EXPENSES

Refer also to Section 2.14, Professional Fees.

### 2.15.1 Telephone and Toll Charges (Telecom)

**Rental** (monthly basis) includes wiring and maintenance contract cost

Business Rate	- 1 Telephone	\$69.25
	- Every Additional Telephone	\$ 4.00
Residential and After Hours Business Rate	- 1 Telephone	\$29.58
	- Every Additional Telephone	\$ 3.00

Telecom is planning to introduce a National Standard Residential rental of \$27.80. As at November 1989 there were four different line rentals depending on the type of exchange: \$27.80, \$25.97, \$23.73, \$20.74

**Toll Charges** Refer Telephone Directory

### 2.15.2 Postage

**Surface Mail - Inland:**

Standard letters - 40c.

Fast Post - 80c.

Non-standard articles:	<u>Envelope size</u>	<u>Standard Post</u>	<u>Fast Post</u>
Medium (up to 120mm x 235mm)		\$0.40	\$0.80
Large (up to 180mm x 324mm)		\$0.60	\$1.20
Extra Large (over 180mm x 324mm)		\$0.80	\$1.20

### **Parcels**

New Zealand is divided into six zones and postage rates vary accordingly between zones. A 2kg parcel can range from \$2.00 to \$6.80 (Standard Post), and \$3.30 to \$8.60 (Fast Post). A 20kg parcel can range from \$8.70 to \$28.40 (Standard Post), and \$10.50 to \$30.40 (Fast Post).

Across town same day parcel rate:	0 to 1 kg	\$1.20
	2 to 20kg	\$2.00

### 2.15.3 Courier Charges

New Zealand Couriers:

Courier Tickets (Up to 25 kg)

Example Christchurch.

#### Boundaries

1 ticket/25kg	Local-Lyttleton, Sumner, Airport, Islington, Belfast	\$3.00/ticket
1 ticket/25kg	Outer-Amberley, Darfield, Rakaia	\$3.45/ticket
1 ticket/15kg	Short-haul West Coast, Methven, Waimate, Kaikoura	\$5.00/ticket
1 ticket/5kg	Long-haul Rest of South Island	\$7.50/ticket
1 ticket/5kg	Inter-Island Stewart or North Island	\$13.00/ticket

**Prices Exclude GST**

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Parcel Service (Maximum weight 35kg; Maximum volume 0.175m<sup>3</sup>)

		Pre-paid	Charge
Regional	Base 0-5kg	\$ 5.00	\$ 5.50
	Excess /5kg	\$ 1.50	\$ 1.65
Within an Island	Base 0-5kg	\$ 7.00	\$ 7.70
	Excess /5kg	\$ 2.30	\$ 2.55
Between the Islands	Base 0-5kg	\$10.00	\$11.00
	Excess /5kg	\$ 8.00	\$ 8.80

T.N.T. Couriers:

Citywide ticket up to 25kg	\$3.50
Regional ticket (150km radius)	\$5.00/5kg or part thereof
Within an Island	\$7.50/5kg or part thereof
Between the Islands	\$13.00/5kg or part thereof

Supamail 1 (Standard letter)	\$1.60
Supamail 2 (163mm x 350mm)	\$2.00
Supamail 3 (250mm x 320mm)	\$3.50
Supamail 4 (325mm x 405mm)	\$5.00
Supamail 5 (400mm x 450mm)	\$7.00

**2.15.4 Subscriptions** (Magazines/Farming Organisations)

Some examples are:

**Magazines**

- "New Zealand Farmer" - \$62.67 per year.
- "Dairy Exporter" - \$18.22 per year.
- "Straight Furrow" - Free.
- "Aglink" Index free, Leaflets \$2.20 per copy.
- "Country Living" - \$17.78 per year or \$3.11 per copy.

**Organisations**

e.g. Federated Farmers (Canterbury) (1989/90)

Owner:	\$150.00
Associate member:	\$ 50.00

**2.15.5 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.



### **2.15.6 Bank Fees and Stock Company Charges**

(see also Section 2.17)

Banking and various Stock Company charges add to total administrative costs and so must be accounted for.

Banks - cheque accounts - typical charges:

- Base fee \$4.75 per quarter, March, June, September, December.
- Ledger Activity Fee - 22c per chargeable transaction (after first 5 transactions per quarter).
- Cheque Duty 5c per cheque.
- Clearance Fee. No clearance fee for personal cheque accounts. 20c per transaction for 'business' accounts.

Stock Companies:

Client drawing on a stock company account - \$20 per cheque book including stamp duty.

Stock company paying accounts for client per payment \$1.00. No base fee is charged.

## 2.16 STANDING CHARGES

### 2.16.1 Insurances

Typical Charges are as follows:

In the case of fire insurance, premiums vary according to the nature of the risk and the value of the buildings or assets insured etc. Accident premiums vary with the nature of the work, etc.

<b>Buildings:</b>		per \$100 value.
House Owner's Cover	-Dwellings	\$0.20
	-Brick	\$0.20
	-Wood	\$0.28
	- Outbuildings - any construction	\$0.27
All Risks Dwelling contents (regardless of construction.)		\$0.60-\$0.68

**Plant and Machinery:** per \$100 value (same as buildings).

(i) Full Perils (All Risks) Cover: \$0.27/\$100

All engine functioned farm machinery - \$5.00/unit for breakdown

Any other farm machinery and equipment including plant, P.T.O. balers and non engine functioned implements anywhere in the district - \$0.270/\$100

(ii) Comprehensive:

Harvesting Equipment: \$40.00 plus \$0.55 per \$100 over \$5000 cover.

Mechanical damage excess from \$150 to \$200 is payable by the owner. Where internal damage to harvesting equipment occurs, an additional premium of 25% of the basic premium is payable.

Tractor: \$46.00 plus \$0.55 per \$100 over \$5000.

N.B. Tractor-drawn and self propelled harvesters at the same rate.

All these premiums plus \$0.110 per \$100 Earthquake and War Risk, plus GST.

#### **Tractor Tyre Insurance**

100% of Premium of sum insured to \$3000

75% of Premium of sum insured between \$3000 and \$5000

50% of Premium of sum insured between \$5000 and \$10,000

40% of Premium of S.I. over \$10,000

Minimum Premium \$20.00.

**Specialised Farm Equipment** - Chainsaws, tools, scanaprobe, nitrogen containers, radio telephones etc. All Risks: per \$100 value - \$0.27

**Crops:** per \$100 value:

Fire Only - Growing or cut in the field (including threshing) in any building or silo and transit risk, 0.65% (time limit up to 12 months).

As per above but excluding whilst in any building or silo, 0.45% (3 month limit of cover).

Fire plus Hail, Flood, Stock, Snow and Frost Risk - 2.25%.

Hay - 0.270%

**Wool:**

0.85% (When in farm building the rate is .270% - as for contents)

**General farm produce and Manures:** whilst on the farm - \$0.270/\$100

**Shelter belts** (excludes live hedge fencing): Rate .270% of assessed value.

**Employers' Liability:**

Accident Compensation Commission - All employees will be covered by a levy paid to the Inland Revenue Department. (refer to Sections 4.15.8)

**Personal Accident** (owners' personal cover):

Details vary, but a typical cover would be as follows:

Death \$12,500. Total disablement from accident \$100 per week. Total disablement from disease \$100 per week. Premium \$125.62 plus GST per annum.

**Public Liability** - to cover legal liability arising from negligence caused by employees, stock, farm vehicles or fire and explosion but excludes motor vehicles which should be registered under the Transport Act.

<u>Cover</u>	<u>Premiums</u>
\$100,000	\$30.00 plus GST
\$250,000	\$40.00 plus GST

Forest and Rural Fires Act included.

The premiums are based on the ownership of one property.

**Stock Insurance** - Livestock on farm (fire only) \$0.090/\$100

The following charges are from Pyne Gould Guinness for "loss of use by accident".

Pedigree bulls:	\$4.70 for 12 months/\$100
Run bulls:	8.00% for up to 8 months. Limit of \$25,000 per animal.
Stud rams:	14% for 12 months.
Stud rams death only:	12% for 12 months. Limit \$5,000 per animal.
Stud Boar:	12% for 12 months. Limit \$5,000 per animal.
Deer:	7.50% for 12 months (excess of 3% of total sum insured)
Goats:	7.00% for 12 months (excess of 3% of total sum insured)

**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 4.15.8.

**2.16.3 Rates**

(see section 2.19.2 for water supply charges)

The main classes of rates are as follows:

- General County rates for the costs involved in administering the County.
- Special rates for ad hoc bodies, e.g. Catchment, Drainage Boards.
- 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, County water schemes.

- Pest Destruction Board rates where the farm is in a Board district.  
All counties 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 -

The rural sector of the county are presently levied with a basic rate of \$114 plus a general rate of .5856 cents in the dollar on the land value of the property. As well as the general rate, depending on the location and the services supplied, water or sewage rates may be applicable.

Christchurch City Council -

Rate varies depending on the district.

Rural district general rate is .2621c per \$ Capital value plus water supply if applicable. For stock water supply see Section 2.19.2.

For budgeting purposes ask the local body or farmer concerned.

#### **2.16.4 Rent**

Renewed Rents on Crown Renewable Leases are 4.5% of Crown Rental Value, as from 1971. Thus to calculate C.R.V., gross rentals must be ascertained. Short term lease rents usually assessed within the range of 4.5%-5% of Capital Value.

Pastoral Leases - 2.25% of Land Exclusive by Improvements (L.E.I.) except for renewals which are 1.5% for the first 11 years.

## 2.17 FINANCIAL CHARGES

### 2.17.1 Cost of Finance (see also section 2.15.6 and 2.17.2 on)

Lending Organisations gave quotes (as at 29 January 1990) for a hypothetical farmer who required \$100,000 first mortgage and seasonal finance of up to \$40,000. The average overdraft was \$20,000 and was needed for seven months; with five months in credit. The Hypothetical farm was 3000 stock unit sheep and beef farm, with above average performance. Land value was \$400,000 and the seasonal loan was secured over \$80,000 worth of stock and plant.

#### Seasonal Loan (\$40,000) 7 Months in Debit

Name	Investigation Establishment Fees (\$)	Interest Rate		Other Fees Per 3 Months (%)	Cheque \$/Month (\$)	Yearly Net Cost (\$)
		Base (%)	Margin (%)			
ANZ	400	15.00	0.0	0.35	6.07	\$2463
BNZ	400	15.75	1.5	0.35	6.07	\$2725
Nat.Aust.	500	15.50	0.5	0.0625	7.92	\$2105
National	0	16.50	0.0	0.35	6.07	\$2558
Rural Bank	0	14.90	2.1	0.25	6.07*	\$2290
Westpac	400	17.25	0.0	0.3	9.58	\$2688
ASB Bank	400	18.50	0.0	0.25	4.57	\$2618
Trust Banks:						
Waikato	175	16.50	0.0	0.219	8.50	\$2320
B.O.P.	200	20.00	0.0	0.45	7.07	\$3116
Central	200	16.00	0.0	0.45	9.50	\$2659
Canterbury	200	15.25	0.0	0.1875	9.00	\$2040
S.Canterbury	0	14.75	2.0	0.45	9.00	\$2521
Otago	0	14.25	4.0	0.45	9.00	\$2876
Southland	0	15.25	0.0	0.1875	10.00	\$2099
Elders	400	16.00	0.0	0.25	6.07*	\$2301
Wrightsons	200	17.00	0.0	0.00	20.00	\$2138
Williams and Kettle	75	17.50	0.0	0.00	35.50	\$2420
P.G.G.	0	18.00	0.0	0.00	13.75	\$2203
Southland Farmers	0	14.00	4.0	0.00	10.00	\$2164

\* Denotes no cheque facility, BNZ rates used in the calculations.

Source: New Zealand Farmer, January 1990.

**Term Loan (\$100,000) 15 Years Table**

Name	Investigation Establishment Fees (\$)	Interest Rate (%)	Repayment Penalty	Total Cost* (%)
ANZ	500	15.00	no	16.2%**
BNZ	1000	14.90	no	16.1%
Nat.Aust. Bank	500	15.50	no	16.7%
National	0	14.75	no	15.9%
Rural Bank	1000	15.25	no	16.5%
Westpac	0	15.00	no	16.2%
AMP	0	14.75	yes	15.6%
Southland Building Soc.	750	15.50	no	16.7%
United Building Soc.	1000	14.9%	no	16.1%
ASB Bank	1000	16.25	no	17.7%
Trust Banks:				
Waikato	500	14.75	no	15.9%
B.O.P.	1000	16.75	no	18.2%
Central	500	14.75	no	15.9%
Canterbury	1000	15.00	no	16.1%
S.Canterbury	500	15.00	yes	16.1%
Otago	1000	15.75	no	17.1%
Southland	500	14.75	\$100	15.9%
Elders	1000	15.75	no	17.1%
Wrightsons	500	15.00	no	15.9%
Reid Farmers	0	15.90	no	16.9%

\* NOTE: The financiers establishment charges, along with additional legal and valuation charges of \$1350 are spread over the 15 year term.

\*\* ANZ (Christchurch) reports that as at 12/2/90 this figure has been changed to 15.5%.

**2.17.2 Table Mortgages - Standard Charges**

The annual instalment (interest and principal) per \$1000 borrowed on a table mortgage, where interest is calculated at annual rests, is set out below.

<b>Repayments of Principal and Interest Per \$1000 Borrowed</b>						
Interest (%)	Term of loan (years)					
	5	10	15	20	25	30
	Instalment (\$ per annum)					
7.5	247	146	113	98	90	85
8.0	250	149	117	102	94	89
9.0	257	156	124	110	102	97
10.0	264	163	131	117	110	106
11.0	271	170	139	126	119	115
12.0	277	177	147	134	127	124
12.5	281	181	151	138	132	129
13.0	284	184	155	142	136	133
13.5	288	188	159	147	141	138
14.0	291	192	163	151	145	143
14.5	295	195	167	155	150	148
15.0	298	199	171	160	155	152
15.5	302	203	175	164	159	157
16.0	305	207	179	169	164	162
16.5	309	211	184	173	169	167
17.0	313	215	188	178	173	172
17.5	316	219	192	182	178	176
18.0	320	223	196	187	183	181
19.0	327	230	205	196	192	191
20.0	334	239	214	205	202	201
21.0	342	247	223	215	212	211
22.0	349	255	232	224	222	221
23.0	357	263	241	234	231	230
24.0	364	272	250	243	241	240
25.0	372	280	259	253	251	250

### 2.17.3 Interest

#### **Rural Banking and Finance Corporation**

General Policy: Interest rate Policy now aligned to those of other trading banks, incorporating a base rate system. As at January 1990, the operating base rate was 14.9%, with a minimum lending margin of 2%. Final assessment of individual rates is dependent on the proposal's viability, security and perceived risk.

Current lending rates, which are dependent on the purpose for the loan, are on average within the following range :

* New Land Purchase	- Dairy	16%
	- Other	17% - 18%
* Plant, Machinery and Vehicles		18% - 19%
* Livestock		18% - 19%
* Fishing		17% - 18%
* Land Development		17% - 18%
* Refinance		18% - 19%

Types and lengths of loans available:

- Term Loans up to 15 years
- Interest Only Loans up to 3 years
- Residual Value Loans up to 20 years
- Bridging Finance up to 1 year
- Seasonal Finance and Working Capital up to 5 years
- Freeplan flexible terms

#### **Solicitors and Trust Companies**

The Trustees Act defines where and to what extent these funds can be invested (e.g. first mortgage on land up to 2/3 of a registered valuer's value) unless there are special provisions in the will of Trust investment which govern investment.

Solicitors and trust companies provide medium term debt finance (3 to 5 years) often renewable or at least able to be refinanced.

Solicitors generally lend a flat mortgage, some trust companies may include repayment provisions.

Generally lend up to 50% of valuation on first mortgage or on second mortgage with Rural Bank guarantee.

Interest rate varies and is currently between 16% and 24%.

#### **Stock and Station Agencies**

These institutions have both seasonal and term lending facilities available. Loan facilities are very much on a personal basis, and are often unsecured although there is an increasing trend to take an I.W.S. or mortgage. As a general guide interest rates are 16-20% for arranged finance and between 23% and 26% for unarranged finance.

#### **Trading Banks**

Policy varies from Bank to Bank and while Trading Banks supply limited mortgage finance to assist with land purchase they prefer to concentrate in the field of short term seasonal and fully fluctuating working capital finance. There are, of course, exceptions, and when funds permit, are able to offer longer term funds for land purchase.



The following avenues are generally available:

(i) BNZ:

1st Mortgage Finance: - 14.9% on secured loans.

Term Loans:

- Maximum Term 5 years minimum 6 months.
- Current minimum rural rates 3.0% above Base Rate. (base rate 15.75% on 15/12/89).
- Livestock, plant, land purchase. (In cases of land purchase the terms could be extended out to a maximum of 15 years).

Overdraft:

- Seasonal farm working expenditure.
- Fully fluctuating working capital expenditure.
- Renewed annually or as required.
- Current interest rates at Base Rate plus 2.5%.

Personal Loans:

- Maximum Term 5 years, minimum 6 months.
- Amounts: Minimum \$500; Maximum \$20,000
- Rates 18.5% secured 20.0% unsecured per annum
- Home improvement, personal expenditure, garages etc.

Lease Finance:

- Term - Usually 3 to 5 years but longer terms can be considered.
- Rates 20 to 25%
- Minimum amount \$10,000  
No capital outlay, ideal for heavy plant purchase with opportunity to purchase at end of term, planning and budgeting easier.

Commercial Bills:

- Minimum amount \$50,000
- Rates subject to market fluctuations - currently around 15.50 %
- Bridging situations where fixed term is envisaged.  
Isolated rural application.

Hire Purchase:

- Can usually be arranged through associated Finance Companies current interest rates around 25%. (True rate higher depending on terms of hire purchase)

Bridging Finance:

- On first mortgage - 6.75% above Base Rate.
- Generally used for in-between farm sale-purchase deals.

Security:

- Generally in all avenues of finance security will be sought by bank.
- Examples are: Landed mortgage (1st, 2nd, 3rd freehold or leasehold), livestock/chattels mortgage, mortgage, mortgage debenture (in case of company) assignments over life policies, scrip, shares, personal guarantees.

Financial Data:

- Minimum requirements generally are -  
Up-to-date balance sheet and accounts (to include farm working account and details of livestock holdings), cash flow forecast and budget, personal statement of assets and liabilities. All either self or professionally prepared.

Some Other Considerations taken into account on all applications for finance:

- Knowledge/experience in farming; Character and capacity; Age; Past borrowing record; Repayment capacity.

(ii) National Bank (NZ) Ltd:

1st Farm Mortgage: 14.75%  
Seasonal Finance: 16.50%  
Term Lending: 14.75% plus 1% application fee for sharemilkers and Livestock purchases.  
Base rate plus 3% for Plant and Machinery plus a \$250 application fee which is refunded when the loan is uplifted.

(iii) Primary Industries Bank of Australia:

Interest only loans - must be an agriculturally based loan.  
Minimum loan = \$150,000 with no maximum, for 5 years and can be renewed.  
Establishment Fee 0.5%, payable on acceptance.  
Interest Rate Options - Variable Rate Price  
- 3 Monthly Repricing  
- Fixed Rate Pricing  
Freephone for current interest rate 0800 657-722

(iv) A.N.Z.:

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 valuation. Charges desirably should not exceed 25% of gross farm income. Security is by way of registered first mortgage.  
Term/Repayment options flexible.  
Interest Rate: 15%  
Approval fee: 1% - minimum of \$200, maximum of \$500 (where no inspection required).

Interest Reduction Facility

When a farmer is paid for crop, wool or stock sales, there may be surplus funds to invest. Interest from this is then taxable. However these surplus funds can be used to reduce a Farm Purchase loan, reducing the annual interest bill. Funds are on call.

Sharemilker/Sharefarmer Livestock and Machinery Loan

Amount: Limited to fair market value of the stock.  
Security by way of a registered instrument of security over stock and plant.  
Term/Repayment options flexible, up to 5 years.  
Interest Rate: 15.5%  
Approval fee - same as Farm Finance Loan except that, where a loan application is accompanied by financial documentation prepared by a dairy company or farm consultant, up to 50% of the approval fee may be rebated.

Farm Equity Credit Line

This is a revolving credit cheque account facility for normal cashflow fluctuations.  
Complementary to the 'Farm Finance Package' and terms/conditions are similar.  
Minimum amount \$5000, interest rate 15% (charged monthly), line fee of 0.35% per quarter.

### Seasonal Finance

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 (Currently 15.75%).

Approval fee: 1% (minimum \$50, maximum \$500) plus line fee: 0.35% per quarter.

### Trustee Savings Banks

Policy is not to earn profits for shareholders, but to provide community service under the control of local trustees. Farm lending policy varies with the institution, but the following summarises the Trustee Banks' policies:

#### (i) Term Lending:

- Flat Interest Only, 1-5 years, can be followed by repayment term.
- Table 3 to 20 years
- Reducing equal principal installments, 3 to 25 year terms
- Fixed Interest                      full term mortgages  
   Interest only  
   Penalty for early repayment, 1 to 6 years terms.
- Prepaid Interest                      Part of interest repayments borrowed as principal, creates low or no interest payments for a set term. Used in development programs or low initial cashflow situations.

Interest Rate: For rural lending 15 to 15.75% (floating).

Fees: Administration Fee negotiable.

Security Margin: Trustbank lends up to 50-60% of value of Land and Buildings. Loan repayments monthly. Principal payments can be made at any time without penalty except on fixed interest loans.

#### (ii) Seasonal Lending:

- Commercial Overdraft 18% (3% Above Base Rate)
- Service Commitment Fee 1.8%
- Rural Flexi-Loan -                      Current Farm Rate 15.25% + Facility Fee 0.75%. Application Fee 1%
- Fees    Base fee \$1.50/Month  
   Activity fee \$0.30/cheque or deposit  
   Average for a farm is 25 Transactions/month = \$9/month
- Requirements for lending                      - Completed statement of position; Cashflow Budget; Formal Application; Most recent set of Farm Accounts; Rate Slips

### 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.

See also Section 2.15.6

## **2.18 DRAWINGS/PERSONAL EXPENDITURE/WAGES of MANAGEMENT**

### **2.18.1 Drawings**

Drawings or Personal expenditure for farmers and growers typically ranges from \$12,000 to \$20,000 per annum, depending on circumstances.

Source: MAF Farm Monitoring Report, June 1989.

### **2.18.2 Wages of Management**

For Lincoln University student purposes only, Wages of Management (W.O.M.) should be based on a married man's salary plus 1% of total farm capital (T.F.C.).

Use the following estimates for a married man's salary, where a house is provided.

Town Milk Dairy	\$15,500-17,500
Factory Supply Dairy	\$13,300-16,500
Sheep and Mixed Cropping	\$13,000-16,500

Generally within the range \$13,000-\$19,000 depending on experience.

## 2.19 WATER SUPPLY, IRRIGATION AND DRAINAGE.

### 2.19.1 Water Supply Costs

The complete cost of a new stock water supply system for a farm depends on an extremely large number of variables, and may range from \$10,000 to \$30,000 or more depending on the farm.

### 2.19.2 Stock Water Supply Charges

#### Community Water Supply Schemes

Here the cost to the farmer varies, so we have taken the Malvern County (Canterbury) Water Schemes. These charges are :

Restricted on per unit basis - defined area

Malvern Hills Rural Water Supply

Application \$50.00

plus capital charge and actual cost to point of supply \$45.45/ha

Selwyn Rural Water Supply

Application \$50.00

plus capital charge and actual cost to point of supply \$45.45/ha

Darfield Rural Water Supply

20mm metered rural/residential (just connection) \$50.00

35mm restricted Rural A & B extensions \$2550.00

#### Water Race Charges (Canterbury)

- Malvern Water Race:

- Properties up to 12 ha \$60.00/yr

- Properties over 12 ha \$ 5.00/ha

(Own cleaning of races required)

- Other Areas vary from \$35 to \$100/1000 litres/day

- Christchurch City Council:

#### Area (ha) Charges

40 -	\$156.56 plus	\$1.7610 per additional .5 ha to 80ha
80 -	\$297.45 plus	\$1.5656 per additional .5 ha to 121ha
121 -	\$426.23 plus	\$1.3697 per additional .5 ha to 161ha
161 -	\$535.60 plus	\$1.1743 per additional .5 ha to 202ha
202 -	\$632.47 plus	\$0.9785 per additional .5 ha to 242ha
242 -	\$710.36 plus	\$0.7826 per additional .5 ha to 283ha
283 -	\$775.31 plus	\$0.5870 per additional .5 ha to 323ha
323 -	\$821.69 plus	\$0.3915 per additional .5 ha to 364ha
364 -	\$854.76 plus	\$0.1957 per additional .5 ha to 404ha
Over 404	\$869.68 plus	\$0.1630 per additional .5 ha

### 2.19.3 Concrete Water Troughs

McKendrys:

Round - Sheep 180 to 900 litres \$82 to \$178

- Cattle 1020 to 2840 litres \$182 to \$590

Prices Exclude GST

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Oblong -	180 to 550 litres	\$82 to \$148
Pig Troughs	90 to 180 litres	\$42.45 to \$54.45

Humes:

	<u>Litres</u>	<u>Gallons</u>	<u>Height (mm)</u>	
Circular:				
CB500	500	110	380	\$144.72
CB750	750	165	380	\$203.57
CB1000	1000	220	600	\$226.86
Rectangular:				
RB180	180	40	380	\$108.68
RB270	270	60	380	\$123.34
RB410	410	90	380	\$157.75

Cement Products Ltd:

<u>Litres (Gal.)</u>	<u>Height</u>	<u>Weight</u>	<u>Price</u>
Oblong Troughs			
270 (60)	370 mm	340 kg	\$106.67
200 (45)	380 mm	280 kg	\$ 86.56
36 ( 8)	170 mm	80 kg	\$ 35.56
Circular Troughs			
225 ( 50)	310 mm	240 kg	\$ 83.56
450 (100)	460 mm	480 kg	\$126.22
1125 (250)	510 mm	1040 kg	\$195.56

NOTE: PVC pipe costings : section 2.19.8

**2.19.4 Tanks**

**Concrete**

Humes:

<u>Litres</u>	<u>Gallons</u>	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>\$ Price</u>
11375	2500	2.82	2.15	\$1301.30

C. & F. Industries:

1700 litres	\$548.00
2700 litres	\$700.00
3600 litres	\$834.00
1200 high Tank Stands	\$533.00
Each additional metre height	\$ 47.00

McKendrys:

1820 litres	\$ 586.00
4450 litres	\$1250.00
13650 litres	\$1550.00
25025 litres	\$2050.00

Cement Products Ltd:

<u>Litres (Gal.)</u>	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>Price</u>
900 ( 200)	1.20	1.15	\$ 520.00
1800 ( 400)	1.45	1.22	\$ 780.00
2700 ( 600)	1.75	1.22	\$ 900.00
3600 ( 800)	1.90	1.22	\$ 996.00
4500 (1000)	1.90	1.83	\$1067.00
9100 (2000)	2.74	1.83	\$1460.00
13600 (3000)	2.74	2.44	\$1582.00
18200 (4000)	3.42	2.28	\$1867.00
22800 (5000)	3.42	2.74	\$1938.00
Flat Top Tanks			\$ 227.00

**Timber Tanks**

McAlpines: (Price Includes Installation)

<u>Capacity</u>		<u>PVC lined</u>	<u>Butynol lined</u>
<u>Litres</u>	<u>(gallons)</u>		
11219	(2500)	\$2992	\$3613
23693	(5000)	\$3945	\$4852
34404	(7000)	\$4593	\$5832
46419	(10000)	\$5219	\$6620
68462	(15000)	\$6156	\$8041
94600	(20000)	\$7413	\$9829

Reservoirs

150000	(33000)	\$13623	\$14859
250000	(55000)	\$27922	\$30615
363000	(80000)	\$33558	\$36611
454000	(100000)	\$39920	\$39675

**Note:** Price includes total construction cost, but does not include freight, travelling time, fill, or accommodation (where necessary). Freight costs for reservoirs in the Canterbury region range from approximately \$2500 to \$3900, depending on tank size. The freight costs for timber tanks are considerably less.

**2.19.5 Well Drilling**

North Canterbury Catchment Board and Regional Water Board 1989:

In 1989 irrigation wells cost about \$230/m to sink, about \$600 for a stainless steel screen, about \$500 to develop the well and from \$1500 for a 4l/sec submersible pump to \$7500 for a 20L/sec pump and rising main.

McMillan Water Wells Ltd (Canterbury):

			<u>Price/m</u>	<u>Stainless Steel</u> <u>Price per metre</u>
2 inch	(45mm)	Drilled	\$110.00	
		Driven	\$ 90.00	
3 inch	(60mm)	Drilled	\$130.00	

**Prices Exclude GST**

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		Driven	\$100.00	
4 inch	(95mm)	Drilled	\$150.00	\$250.00
		Driven	\$130.00	
5 inch	(125mm)		\$170.00	\$280.00
6 inch	(150mm)		\$212.00	\$300.00
8 inch	(200mm)		\$252.00	\$380.00
9 inch	(225mm)		\$266.00	\$400.00
10 inch	(250mm)		\$280.00	\$500.00
12 inch	(300mm)		\$350.00	\$550.00

Developing, screening and test pumping for 6" well up to 10 h.p. pump is at an hourly rate of \$115/hr.

If over 10 h.p. pump is used there will be an additional charge of \$10/hr per 10 h.p. of pump.

### 2.19.6 Well Liners

Humes:

Well liners are priced at \$228.41 per metre.

### 2.19.7 Pumps and Windmills

Onga (NZ) Ltd - Davies Pumps:

Prices for various pressure systems vary according to tank size.

#### **Domestic**

##### Shallow Well Pressure Systems

Model	443 400W 20psi AP 10 tank	\$450
	444 550W 20psi AP 18 tank	\$630
	445 750W 25psi AP 50 tank	\$775
	543/544 1100W 30/40psi AP 50 tank	\$940/\$990
	545/546 1500W 30/40psi AP 50 tank	\$1170/\$1220

Deep Well - add injector prices listed below

Model	503 1100W 20-30psi AP 50 tank	\$990
	4/5/6" injectors	\$225/\$255/\$300

#### **Farm**

##### Shallow Well Jet Pumps

Model	JJ500 750W 20-40psi AP 50 tank	\$995
	JJ600 1100W 20-50psi AP 50 tank	\$1190
	OJ700 1500W 20-70psi AP 80 tank	\$1710
	OJ800 2400W 30-110psi AP 80 x 2 tanks	\$2410

Deep Well - add the following to the above pumps:

	4/5/6" deep well injectors	\$180/\$210/\$280
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##### Engine Driven Jet Pumps

Model	OJ700E 5HP Briggs and Stratton motor	\$1850
	OJ800E 8HP Briggs and Stratton motor	\$2290



### Hi Flow Self Priming Centrifugal Pumps

-Moulded high pressure

Model 413 400W 21psi 240V	\$285
415 750W 31psi 240V	\$360
112 1100W 37psi 240/415V	\$550/\$590
143 2400W 60psi 240/415V	\$1170/\$840

-Moulded high capacity

Model 140/146 1100/1500W 31/35psi 240/415V	\$620 to \$810
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-Cast iron head

Model 182 1500W 50psi 240/415V	\$980/\$950
185 6000W 77psi 415V	\$2070

-Cast iron high capacity

Model 150 1100W 30psi 240/415V	\$960/\$1010
187 2400W 42psi 240/415V	\$1600/\$1320

-Sump pump Series 12

Model 120 550W 19psi 240V	\$480
122 1100W 30psi 240/415V	\$750/\$790

-Submersible sump pump with level switch

Model S1300 550W 18 l/min up to 3.8m head	\$300
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### Power Equipment Ltd:

Honda Pumps

Model RPP 2 (water) 2 inch dia.	600 ltr/min.	\$1095.00
Model WB 30 (water) 3 inch dia.	1100 ltr/min.	\$1195.00

Ajax-Southern Cross (NZ) Ltd:

Ajax 3MS Bare shaft packed gland	30-40 ltr/sec	\$3028.00
Ajax 4MS Bare shaft packed gland	50-70 ltr/sec	\$3740.00
Ajax 2000 50-32-160 mechanical seal		
8 ltr/sec to 70m/hd		\$1150.00
Ajax 2000 180-65-160 mechanical seal		
24 ltr/sec to 65m/hd		\$1250.00
Ajax 2000 125-100-250 mechanical seal		
90 ltr/sec to 110m/hd		\$2255.00

MacEwens Machinery Limited:

MacEwens ZLN Series 2 to 740m <sup>3</sup> /hr (7 to 2700 gal./min)	\$970 to \$4200
Multistage pump PHA 34 1P	\$637
PHA 35 1P	\$699
Challenger submersible up to 5m <sup>3</sup> /hr (18 gal/min)	\$766

Salmson Vetical multistage pumps 19m<sup>3</sup>/hr (66 gal/min)

Single phase 0.55 to 1.1 kW	\$730 to \$1151
3 Phase 0.55 to 9 kW	\$889 to \$4034

Tsurumi pumps - submersible

Drainage: Single phase 0.1 to 0.4 kW	\$233 to \$2883
3 phase 0.8 to 11 kW	\$754 to \$9055

Sewage: various models	\$807 to \$7021
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Prices Exclude GST

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Greenhouse Distributors Ltd:

Kerada submersible pumps	25 ltr/min	\$174
	75 ltr/min	\$246
	123 ltr/min	\$295

Ag-Equipment Specialists Ltd:

Hawk high pressure pumps	1750 psi 8 to 11 ltr/min	\$670
	3000 psi 12.5 to 30 ltr/min	\$875 to \$1320

**Windmills**

Jolly Windmill Company:

Windmill and pole, pump, footvalve, filter.

Diameter(m)	Price	Bore(mm)	Price
1.8	\$1,200	40 Household	\$490
2.4	\$2,900	50 High Pressure	\$750
3.0	\$4,200	65 High Pressure	\$950

**2.19.8 P.V.C. Pipe**

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 (130psi)	15	\$ 66.93
800 kpa (116psi)	20	\$118.46
650 kpa (90psi)	25	\$150.62
500 kpa (75psi)	32	\$186.64
450 kpa (65psi)	40	\$215.64
300 kpa (50psi)	50	\$276.74

High Density Polythene Pipe (Price per 100 metre coil) -

Class C

<u>Size(mm)</u>	<u>900kpa(130psi)</u>	<u>Size(mm)</u>	<u>900kpa(130psi)</u>
15	\$ 69.18	32	\$229.94
20	\$112.02	40	\$305.28
25	\$162.16	50	\$568.30

**2.19.9 Irrigator Models and Equipment**

Rainer Irrigation Limited:

**Travelling Irrigators**

Briggs Model	250 Roto Rainer & Hose Trailer	\$33250
	With Turbine Drive	\$38950
Briggs Model	250 Linear Rain Turbine Drive plus	
	5in Hose Trailer	\$41275
Briggs Model	125 Roto Rainer & 4.5in Hose Trailer	\$25987
Briggs Model	80 Roto Rainer & 3.5in Hose Trailer	\$21940
Briggs Model	80 Linear Rain & 3.5in Hose Trailer	\$26840

Briggs Model 50 Diesel Drive Roto Rainer & Linear Rain	\$18400
Briggs Model 25 Roto Rainer & 2.5in Hose Trailer	\$12450
Briggs Model 10 Roto Rainer	\$3495
Briggs Model 10 Hose Trailer	\$2750 to \$3170
Briggs Model 80, 125, or 250 Hose Trailer	\$5000

N.B. Hose lengths vary according to water supply and farm layout.

**Southern Cross Machinery:**

Irrigator complete with sprinklers, hose (Angus), hose ends, starting coupling.

PCC (Model 30)	45 mm x 100 m Angus Hose	\$6500
	Powerwinder with engine	\$1235
TCD 2000	65 mm x 150 m with SR 100 gun	\$15000
TCE 3000	89 mm x 150 mm	\$21000

**DML Rain-Beau Irrigators:**

Mark I, II and III	\$2250 to \$2630
Hose winder reels (4 wheel type)	\$784
Stock unit with 100m of 25mm hose or reel	\$4890

Sprinklers (each)

Naan 223/96	11 to 62 litres/min	\$ 28
2033/96	42 to 76 litres/min	\$ 34
254/96	18 to 124 litres/min	\$ 43
5033/91	14 to 42 litres/min (plastic)	\$ 18

Pump Units Complete With Motor

40 x 32 - 230	11 kW (8hp)	9 lps (120g/min) @ 70m	\$3,740
65 x 50 - 230	18.5kW (14hp)	20 lps (264g/min) @ 60m	\$4,297
80 x 65 - 230	30 kW (22hp)	28 lps (370g/min) @ 70m	\$4,884
80 x 65 - 280	37 kW (28hp)	25 lps (330g/min) @ 90m	\$5,800
100 x 80 - 280	45 kW (34hp)	40 lps (529g/min) @ 75m	\$7,030
125 x 100 - 280	75 kW (56hp)	65 lps (859g/min) @ 90m	\$8,250

Micro Irrigation

Microjets	\$ 0.36
7102 Mini Sprinkler c/w stake and tube	\$ 3.00

Feco: Baars Irrigation Systems \$22900

**MICO Wakefield S.I.Ltd:**

Lateral Tubing (100m Coils)

Diameter	
13 mm	\$38.24
16 mm	\$49.17
19 mm	\$73.50

Micro Tubing (200m Coils)

Diameter	
0.7 mm	\$31.68
0.9 mm	\$34.42

**Prices Exclude GST**

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Dynex Extrusions Ltd:

Micro-irrigation

Diameter	Length	Price	Diameter	Length	Price
0.9 mm	200 m	\$ 6.60	16 mm	100 m	\$25.88
10 mm	100 m	\$15.73	19 mm	100 m	\$34.01
13 mm	100 m	\$21.52			

### 2.19.10 Irrigation Charges - Canterbury

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.

Water charges for the 1989/90 season for community irrigation schemes in Canterbury are as follows:

<u>Scheme</u>	<u>Charges</u>
Ashburton Lyndhurst	\$18.00 per ha (Provisional, as figures not yet finalised).
Mayfield Hinds	
Waiau	\$28.00 per irrigated hectare.

### Scale of Charges for Administration, Monitoring and Supervision of Water Rights - Canterbury Regional Council:

(i) Water Right Application Costs : The basic fee is \$200 for the first water right and and subsequent applications are at the rate of \$75 per water right.

(ii) Annual Charges: Where a water right is already held, an approximate charge of between \$50-\$110 per annum is levied. Where water is abstracted for community irrigation schemes, the annual charge ranges from approximately \$440 to \$1370 per annum, depending on the quantities of water obtained.

### 2.19.11 Border Dyke Irrigation

#### 1. Earthworks

Average cost for Canterbury conditions would be \$1100 to \$1300/ha.

However the range would be \$700/ha (Mid Canterbury) to \$1700/ha (North Canterbury/Waiau)

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 \$220.

**Sills**

Standard sills (2.5 m boards) cost between \$50 and \$65 each.

There are various other designs which would generally be more expensive.

**Weirs**

Average \$415 each.

**Access Crossings**

Consisting of 3 pipes plus head walls

Installation	\$ 380.00
Pipes	\$ 265.00
Head walls	\$ 410 each

**2.19.12 Drainage Costs**

The cost of intensive pipe/tile and mole drainage depends on a very large number of variables, and may range from \$1600 to \$2000 or more per hectare, depending on the farm.

**Field Tiles:**

Boyes:

100 mm	\$ 3.20/metre
150 mm	\$ 5.40/metre
250 mm	\$15.40/metre

Marley:

Drainflo Land Drainage (corrugated punched or unpunched)

<u>Diameter</u>	<u>Coil Length</u>	<u>\$ per Metre</u>
65 mm	30 and 150m	\$ 1.52
110 mm	50 and 100m	\$ 2.60
160 mm	45 m	\$ 4.92

**Fittings**

	<u>Diameter</u>	<u>Price</u>
Junctions	110 and 160mm	\$6.62 and \$9.16
Reducers	110 and 160mm	\$8.90
Straight Couplings	110 and 160mm	\$2.96 and \$4.26

Regions north of Christchurch pay freight. Regions south of, and including, Christchurch freight paid.

**Concrete Culvert Pipes**

McKendrys:	150 to 375 mm x 900	\$20.00 to \$34.00
	450 to 900 mm x 900	\$40.00 to \$86.00

Cement Products Ltd:	150 to 300 mm x 915	\$11.56 to \$18.22
	380 to 600 mm x 915	\$28.44 to \$48.89

**Backfill Shingle**

(Per cubic metre) \$12 to \$15 in the trench.

One cubic metre backfills approximately 15 metres of drain.

**2.19.13 Septic Tanks**

McKendrys: 3300 litres	\$520.00
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Humes: 2730 to 3300 litres plus fittings	\$590.63 to \$853.96
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Cement Products Ltd: 2700 litres	\$617.78
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## 2.20 FENCING COSTS

### 2.20.1 Guide to Fencing Costs (1989/90)

**N.B** All prices are GST exclusive.

#### **Labour:**

Fencing contractors charge out at around \$25/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.

#### **Contract:**

One Canterbury contractor charges the following: (labour & materials)

To erect a standard 8 wire fence on hill country	\$8.00/m
To erect a 7 wire fence on flat country	\$7.60/m
To erect a 5 wire electric fence on hill country	\$3.10/m
To erect a deer fence	\$11.00/m

#### **Cost of Materials for standard fences:**

(see also sections 2.20.2, 2.20.3 and 2.20.8 onward)

- (i) 10 wire conventional fence on undulating to hill country, using No. 2 strainer posts every 100 metres and No. 2 round posts at 3 metres apart  
Cost per Km = \$2,980  
With 5 battens per post  
Cost per Km = \$4,937
- (ii) 5 wire fibreglass fence on undulating to hill country, spacing 1 x 13mm rod and 3 x 10mm rods per 16 metres.  
Cost per Km = \$1,989  
Note: this cost does not include the Energizer unit and accessories.  
(see section 2.20.8)
- (iii) 5 electric wire, batten and insulator fence on undulating to hill country, at 5 metre spacings  
Cost per Km = \$1,320  
Note: this cost does not include the Energizer unit and accessories.
- (iv) 5 wire (electric) insultimber fence on undulating to hill country. 1 post and 3 droppers per 16 metres.  
Cost per Km = \$2,052  
Note: this cost does not include the Energizer unit and accessories.
- (v) 5 wire electric, No. 2 quarter round posts with insulators and insultimber droppers on undulating to hill country. Spacings - 1 quarter round post and 3 droppers per 16 metres.  
Cost per Km = \$1,831  
Note: this cost does not include the Energizer unit and accessories.

Source: Gallagher Electronics Ltd.

**Cost of Materials for Deer Fences:**

(see also section 2.20.2 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 @ \$14.75	\$1180.00
Strainers 2.7m x 175mm	3 @ \$26.89	\$ 80.67
Stays 2.7m x 115mm	3 @ \$8.84	\$ 26.52
Stay blocks 200mm x 50mm x 0.5m	3 @ \$3.11	\$ 9.33
2.5mm H.T. wire	1200m at \$0.0813/m	\$ 97.56
150mm x 1900m netting 13 line	400m @ \$293/100m	\$1172.00
Gate 3.66 x 1900mm	1 @ \$154.54	<u>\$ 154.54</u>

per 400 metres \$2720.62

**Cost per metre \$6.80**

**(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 @ \$14.75	\$442.50
Droppers 1000mm x 40mm x 50mm	100 @ \$1.28	\$128.00
Strainers 2.7m x 175mm	9 @ \$26.89	\$242.01
Stays 2.7m x 115mm	9 @ \$8.84	\$ 79.56
Stay blocks 200mm x 50mm x 0.5m	9 @ \$3.11	\$ 27.99
2.5mm H.T. wire (1 coil = 648m)	9.4 coils @ \$50.82	\$477.71
Plastic strain insulators	48 @ \$0.52	\$ 24.96
Joint Clamps	24 @ \$0.55	\$ 13.20
Cut-out switch	1 @ \$6.60	\$ 6.60
Gate breaks (flexible connectors)	4 @ \$1.48	\$ 5.92
Gates	4 @ \$154.54	<u>\$618.18</u>
	cost per 1000 m	\$2066.63

**Cost per metre = \$2.07**

**Fence Design B:**

Consists of 3 live wires above 800m 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 above fence.

**Materials required for 1000 metres**

Posts 2.7m x 125mm	30 @ \$14.75	\$442.50
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Droppers 1.52m insultimber	100 @ \$7.06	\$706.00
Strainer posts 2.7m x 200mm	9 @ \$26.89	\$242.01
Stays 2.7m x 115mm	9 @ \$8.84	\$ 79.56
Stay blocks 200mm x 50mm x 0.5m	9 @ \$3.11	\$ 27.99
2.5mm H.T. wire (648m/coil)	4.7 @ \$50.82/coil	\$238.85
Wire netting (800mm x 300mm, 7 line)	1000m @ 127.1/100m	\$1271.10
Plastic strain insulators	24 @ \$0.52	\$ 12.48
Joint clamps	12 @ \$0.55	\$ 6.60
Cut-out switch	1 @ \$6.60	\$ 6.60
Gate breaks (flexible connectors)	4 @ \$1.48	\$ 5.92
Gates 3.66m x 1900m	4 @ \$154.54	\$618.18
	cost per 1000 m	\$3657.79
		<b>Cost per metre = \$3.66</b>

### 2.20.2 Wire

	<u>Gauge of Wire</u>	<u>Length of 25 kg coil</u>	<u>\$ per coil</u>
Plain Wire	4mm (no.8)	253m	\$49.43
	3.55mm (no.9)		\$60.61
High Tensile	2.0mm/2.5mm/3.15mm (ie smaller the gauge the higher the price).		\$61.33/\$50.82/\$46.82
Barbed Wire	2.5mm x 75mm/100mm barbs	240m	\$65.33
Lacing Wire	1.6mm/2mm galvanised	10 kg coil	\$33.34/\$29.61

### 2.20.3 Posts/Strainers/Droppers/Battens/Stays (see also section 2.20.11)

McVicar Timber Group Ltd:

Fencing Posts / Stays -

1/2-Round	1.8/2.4/2.7 m	\$5.96/\$8.22/\$9.47
Posts	75 to 150 mm x 1.8 m pointed	\$5.29 to \$ 7.91
Deer Posts	125 mm x 2.7 m pointed	\$14.75
Stays	75 - 100 mm x 2.4 m	\$ 8.36
	75 - 100 mm x 2.7 m	\$ 8.84
Hort. posts	1.8m/2.4/2.7m	\$4.35/\$6.71/\$6.98

Strainers -

175mm to 200mm x 2.1 m pointed	\$15.91 to \$17.86
175mm to 225mm x 2.4 m pointed	\$19.91 to \$23.87
200mm x 2.7 m pointed	\$26.89

Stay Blocks -

200 mm x 75 x 0.5 m	\$ 4.66
200 mm x 50 x 0.5 m	\$ 3.11
150 mm x 50 x 0.5 m	\$ 2.26

**Prices Exclude GST**

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Droppers -		
50mm x 40mm x 1m		\$1.11
50mm x 40mm x 1.2m		\$1.28

**R.A.Shearing Contractors Ltd:**

Corner Posts	1.8/2.4/2.7 metres	\$15.66 to \$21.38
Droppers -	7 and 8 wire	\$1.05 to \$1.14
Intermediates	5'6" to 6'	\$8.48 to \$8.74
Pailing Posts	1.8/2.4/2.7 metres	\$11.50 to \$17.23
Gate Posts -	sheep yards	\$13.99
Stays	8' and 9'	\$13.25 to 13.61
Stayblock	small/large/extra large	\$4.38 to \$6.24
Strainers	various sizes	\$27.99 to \$41.95

**Gallagher:**

Insultimber -		
Post, No. 1	1520 x 38 x 38mm	\$7.06
Droppers	940 x 38 x 26mm	\$3.39
Tie Downs	700 x 38 x 26mm	\$1.87
Deer post	2100 x 50 x 50mm	\$6.47
Deer post dropper	1520 x 38 x 26mm	\$4.60

**McAlpines:**

Posts -		
1.8m x 100-145 SED		\$6.00
2.4m x 90-115 SED		\$7.24
2.4m x 140-160 SED		\$12.89
2.7m x 115-140 SED		\$13.02

**Cyclone:**

Battens - 914mm to 1003mm	\$76.60 to \$84.57/100
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**2.20.4 Gates**

**Wooden**

**McVicar:**

Hurdles and Gates :	1.8m and 2.1m Hurdles	\$29.82 and \$31.82
	3.6m and 4.2m Gates	\$81.60 and \$85.56

**McAlpines:**

Hurdles	1.8/2.1/2.4/3.0 m x .99m	\$28.98 to \$32.00
Gates	2.4/3.0/3.6/4.2 m x .94m	\$72.89 to \$98.53

**Aabaas Bros.:**

**Angle iron barred gates**

16 ft	\$175.54
14 ft	\$169.78
12 ft	\$153.33

Sheep yard gates	
10 ft	\$132.09
8 ft	\$110.49

10 ft	\$140.18	6 ft	\$ 91.02
8 ft	\$117.69		
6 ft	\$ 97.59		

**Galvanised Steel**

	<u>Length (metres)</u>			
	<u>3.05</u>	<u>3.35</u>	<u>3.66</u>	<u>4.27</u>
Standard	\$ 86.67	\$91.11	\$103.55	-
Special	-	-	\$113.60	-
Special Heavy	-	-	\$136.00	\$146.67
180 Barred	\$124.44	\$131.56	\$129.78	\$156.44
Stressmaster	-	-	\$116.32	\$140.64
Stressmaster heavy	-	-	\$132.68	-

Economy Farm Gates 3.66/4.27 m length \$75.55 to \$78.67

Deer Gates	
3.05 m x 1900 mm	\$147.45
3.66 m x 1900 mm	\$154.54
4.27 m x 1900 mm	\$168.89

**2.20.5 Wire Netting**

<u>Type</u>	<u>Height</u>	<u>Stay Spacing</u>	<u>Price/100m</u>
<b>Twinlock Hinge - Joint Boundary - High Tensile</b>			
8 line	900/800 mm	300 mm	\$130.22/\$146.67
7 line	900 mm	150 mm	\$198.22
7 line	800 mm	300 mm	\$127.11
<b>Electric</b>			
5 line	525 mm	300 mm	\$ 92.44
<b>Tightlock Stiff Stay Boundary - High Tensile</b>			
7,8,9 line	900 mm	300 mm	\$138.56 to \$147.56
<b>Deer Fence -</b>			
13/17 line	1900 mm	150 mm	\$360.89/\$422.22
13 line	1900 mm	300 mm	\$216.89
11 line	1550 mm	300/150 mm	\$187.11/\$293.33
Farm Mesh 75mm x 150mm x 4mm diameter galvanised wire			\$2.57/m
<b>Silo Mesh -</b>			
75mm x 75 mm x 4mm diam 16m x 2365mm roll size			
Standard silo of 5m diameter x 2354mm high			\$22.40/m <sup>2</sup>

**Prices Exclude GST**

**B-104**

Galvanised (prices per square metre) - Chain Link Netting

<u>Mesh Size</u>	<u>Wire Diameter</u>		
50mm	x 2.5mm	x 900/1800mm	\$4.89 & \$9.78/m

**2.20.6 Fencing Tools and Equipment**

**Straining Equipment**

Wiremakers: Chain Wire Strainer \$ 56.44

**Post and Standard Drivers**

Hayes:

Standard Driver 352 Tubular \$ 45.04

Hydes:

Hydraulic Post Drivers 200kg monkey \$2980.00

Hydradrive 600 Heavy Duty Post Drivers \$8920.00

Winch Post Drivers \$2975.00 to \$3675

Gallagher:

Insultimber Driver \$96.25

**Post and Standard Removers**

Donalds: "Muscle Mate" post puller \$90.00

Hayes: Standard Lifter \$74.67

**Wire Reels**

Donalds: Wire Dispenser (1988 price) \$97.00

Hayes: Wire Reels \$ 44.99

**Post Hole Diggers**

Aitchison Industries:

Mate Post Hole Diggers

85 cc motorised powerhead \$ 985.00

100 cc motorised powerhead \$1095.00

Auger (Length 76 cm)

Single blade 1500 series and Double blade 1700 series

Size

50.8/76.2/101.8/127.0 mm Retail Price \$112.42 to \$155.04

152.4/177.8/228.6/254 mm \$159.98 to \$193.75

Solo:

Solo Post Hole Digger \$802.55

### 2.20.7 Cattle Stops

Humes:

2330 mm x 1220/1800 mm \$314.42 to \$419.23

C & F Industries:

Type 50, 3.6 m x 2.1 m Heavy Duty \$1223.00

3.6 m Concrete Surround \$ 474.00

McKendrys:

2.25 m x 1.2/1.5/1.8m \$350.00 to \$520.00

### 2.20.8 Electric Fence Energisers

Gallagher:

Mains Powered Energiser m1500 \$489.73

Battery Powered G334 Super Battery \$442.44

Solar Powered B150 Solar Kit 10 Watt \$710.12

Donaghys:

Mains Powered Stafix Model SM80 - Super 240V \$690.00

Stafix Model SM40 - High Power 240V \$440.00

Stafix Model SM800 - Dual Purpose 230V \$725.00

Stafix Model SB15 High Power - 12V external battery \$446.00

Stafix Model SB5 Strip Controller - 12V ext.battery \$140.00

### 2.20.9 Insulators

Gallagher:

Wooden Post, Long Life \$0.42

Super Strain (White) \$0.97

Pin Lock Wooden Post \$0.36

Donaghys:

Plastic - 10mm (For Livestrand) \$ 0.29

Nail Insulators - 1000 per outer \$227.00

- 250 per inner \$ 59.50

Watershed Insulators - 1000 per outer \$189.00

Insulock - 1000 per outer \$250.00

Stafix S200 Strainer Insulator \$ 0.52

Porcelain Insulators, Style 107 \$ 1.55

### 2.20.10 Electric Fence Reels and Wire

Donaghys:

'Stafix' Self Insulated Reel \$ 27.85

Reels (Self Insulating) -

200/350/500 m prewound livestrand \$42.25 to \$63.18

Three in one Reel prewound 3 x 200 6 wire live strand \$123.15

Mounting Post (Self Insulating) 1-4 reels \$15.65 to \$18.00

Power winder complete, 12 Volt battery drive \$ 95.00

**Prices Exclude GST**

**B-106**

6 wire 'Livestrand Super 6' 200/350/500m spools		\$14.40 to \$35.33
Hottape 200 m reel		\$ 23.55
'Flexinet' (50 yd coils)	Sheep Netting	\$111.50
	Horse/Goat/Deer netting	\$124.00

Gallagher:

Reel Strip Grazing - Small/Medium		\$24.58 to \$40.46
Reel Stand - Deer (1-4 reels)		\$18.54 to \$23.85
Lead connectors Single/Multi reels		\$3.18 to \$8.61

**2.20.11 Electric Fence Standards**

Donaghys:		Each
Double Foot Rod Standard	10 mm - 10 per bundle	\$2.55
Self-Insulated Electric Fence Standard	Moulded footing grip(100/ctn)	\$2.60
	Spike footing (100/ctn)	\$2.75
Pigtail Standard H Type	10 per packet	\$2.60

Gallagher:

Tread in polymer multiwire	each	\$2.69
Fibreglass -		
Post 1200 x 10 mm (Orange)		\$2.41
Post 1370 x 13 mm (White)		\$4.48
Quick Clips		\$0.16 to \$0.18
Pressure Plate (for 10 and 13 mm)		\$0.48
Cap, Driver		\$7.33

**2.20.12 Electric Fence Cable**

Gallagher:		
Cable, Undergate 1.6 mm, 50 m Double Insulated		\$ 18.44

**2.20.13 Electric Fencing Accessories**

Gallagher:

Testers -		
Meter, Digital (D.V.M.)		\$95.33
Live lite tester		\$28.88
Batteries -	Dry Cell	\$ 51.62
	Rechargeable 2 per unit required	\$ 27.05
	Low loss	\$318.62
Earthing Equipment:		
Stake, Earthing, Galvanised pipe, 2m		\$15.36
Cut out switch		\$6.66

Donaghys:

Cut out switches 10 per box	each	\$7.50
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## **2.21 FARM MACHINERY AND EQUIPMENT COSTS**

**Note:** In the current economic situation, many manufacturers and importers of farm machinery do not have fixed price lists for a range of models, as was the case in the past. 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.

### **2.21.1 Average Prices for Farm Vehicles**

**N.B.** Please refer to later sections for details of specific models.

	<u>Average Price</u>	<u>Range</u>
<b>Tractors</b>		
30 to 37 kW (40 to 50 HP)	\$27,000	\$17,800 to \$35,300
37 to 52 kW (50 to 70 HP)	\$35,200	\$30,700 to \$40,000
52 to 75 kW (70 to 100 HP)	\$55,000	\$37,400 to \$75,000
Over 75 kW (100 HP)	\$74,600	\$63,000 to \$83,000
<b>Combine Harvesters</b>		
Many now are imported only when required		\$130,000 to \$170,000
<b>Forage Harvesters</b>		
Depending on size and capacity	\$ 6,000 to \$35,000	
Precision chop models	\$28,000 to \$52,000	
Loader Wagons	\$34,000 to \$62,000	
<b>Trucks and vans</b>		
There are a range of models with differing cab/deck arrangements, mostly with a choice of fuel type and 4WD option.		
1.5 to 3.0 tonne	-	\$21,000 to \$41,000
3.5 tonne	-	\$31,200 to \$34,000
4WD vehicles (Landrover)	-	\$35,000 to \$41,000
<b>Farm Bikes</b>		
2 wheel	-	\$2,600 to \$4,300
4 wheel	-	\$3,300 to \$7,500

### **2.21.2 Average Prices for Farm Equipment**

**N.B.** Please refer to later sections for details of specific models.

	<u>Average Price</u>	<u>Range</u>
<b>Ploughs</b>		
Depending on the number of furrows and tractor mounting	\$14,700	\$4,000 to \$39,100
<b>Discs</b>	\$5,500	\$2,500 to \$9,300

**Prices Exclude GST**

**B-108**

**Cultivators**Depending on the number of tynes,  
and tractor mounting

	\$6,000	\$2,000 to \$17,200
Rotary models	\$9,700	\$2,800 to \$13,800

<b>Harrows</b>	\$300	up to \$750
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**Rollers**

Heavy rollers	\$9,500	\$6,000 to \$16,000
Cambridge rollers	\$11,000	\$2,200 to \$25,000

<b>Drills</b>	\$13,400	\$8,000 to \$28,000
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**Mowers**

Drum or Disc	\$7,200	\$2,500 to \$27,500
(these may have a conditioner attached or as an optional extra)		
Sickle bar	\$3,200	-

<b>Hay Rakes</b>	\$5,000	\$1,800 to \$11,000
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**Hay Balers**

Conventional	\$23,000	-
Big balers	\$45,000	\$30,000 to \$130,000

**2.21.3 Tractors****Ford New Holland:****Agricultural-****2 Wheel Drive**

37.0 kW (50 HP) to 57.0 kW (76 HP)	\$25,778 to \$37,851
64.0 kW (86 HP) to 75.8 kW (105 HP)	\$41,479 to \$73,469

**4 Wheel Drive**

42.0 kW (57 HP) to 57.0 kW (76 HP)	\$34,529 to \$44,393
64.0 kW (86 HP) to 75.8 kW (105 HP)	\$47,174 to \$79,895

**Horticultural-****2 wheel drive**

	\$22,483 to \$25,250
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**4 wheel drive**

	\$27,135 to \$27,607
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**J.I. Case:**

2 wheel drive	52 to 72 HP	\$28,736 to \$37,811
	72 to 105 HP A/C Cab	\$47,187 to \$62,980
4 wheel drive	52 to 72 HP	\$35,259 to \$43,789
	72 to 105 HP A/C Cab	\$52,165 to \$71,750

**Massey Ferguson:**

MF 240/2A	(11 x 28), (47 HP)	\$25,134
MF 365	2WD, (68 HP) 12 speed	\$34,825
MF 375	4WD, (75 hp), 12 speed,	\$41,889



MF 390	2WD, 4WD (83 hp), 12 speed, cab	\$37,548 to \$51,143
MF 398	4WD, (100 hp), 12 speed, cab	\$58,818 to \$62,275
MF 3060	4WD, (86 hp)	\$63,754
MF 3080	2WD and 4WD (105 hp)	\$75,935 to \$79,505
MF 3090	4WD, (120 hp)	\$82,734

**Kubota:**

49 to 62 HP 4WD	\$31,316 to \$37,541
75 to 95 HP 4WD	\$42,990 to \$50,917

All have safety frames, cabs are available for some models for an extra \$10-13,000 with air conditioning.

**John Deere:**

	<u>2WD</u>	<u>4WD</u>
33 to 59 HP	\$17,727 to \$32,167	\$17,733 to \$39,508
66 to 106 HP	\$35,154 to \$65,657	\$42,276 to \$75,128

Air conditioned cabs \$10-11,000 extra

**Power Equipment Ltd:**

**Lawn and utility tractors:**

HT 4213 SU	13 HP 42 inch cut	\$ 6,750
RT 5000 A	11 HP 46 inch cut	\$10,690

**2.21.4 Farm Bikes and Bike Trailers**

**Honda:**

2 Wheeler 110 to 200cc	\$3,696 to \$4,400
4x4/4x2 Wheelers	\$6,795 to \$7,795

**Suzuki:**

Farm- "Mudbug" models	\$2,563 to \$3,393
LT F250 4W/4WD	\$6,177 to \$7,460
Dual Purpose- 185 to 250cc	\$2,474 to \$3,924

**Yamaha:**

2 Wheeler	\$2,893 to \$3,993
4 Wheeler	\$5,291 to \$7,282
YFM 350F 4WD	\$8,195
BW 200E 2Wheeler, Big Wheels	\$3,685

**Farm Bike Trailers**

**Smith Attachments - (freight paid)**

4' x 3' to 6' x 4'	\$820 to \$1115
Stock Crate	\$244 to \$898
5' x 3'8" Hay Trailer	\$997 (plus stock crate \$238)
6' x 4' Trailer	\$1115 (plus stock crate \$343)
Motorcycle drawbar	\$64.00

N.B. All trailer prices include balloon tyres and ball coupling.

### 2.21.5 Mowers and Toppers

#### Kuhn:

GMD 44 Multi-Disc Mower	-Manual or Hydraulic	\$5,790 to \$6,460
GMD 66 Multi-Disc Mower	- Hydraulic	\$7,995 to \$8,430
FA367 Sicklebar Mower	- 5ft, 6in	\$3,220

#### Claas:

WM165N2 Drum each 3 knives	1.65 m	\$ 5,590
WM185N2 Drum each 3 knives	1.85 m	\$ 7,290
With Conditioner		\$10,540
WM210N2 Drum each with 4 knives 2.1m width		\$9,375
with conditioner		\$12,665

#### Gallagher:

Rotomow/Pulveriser 1.85m/2.15m width \$5,945 to \$6,490

#### Lely:

Cutting width 1.65/2.08 m 31/47 HP \$ 5,490 to \$ 9,290

#### Feco: PZ Haymowers -

Drum mowers \$ 5,650 to \$20,965  
Falazet 230 Disc & Drum Mower \$ 9,990

#### Reese Engineering:

Standard Twin 2.07m/2.4m Cut \$ 4,990 to 6,180  
Extended Frame Model \$ 5,130

#### Power Farming:

Rotary Grass Mowers Hi Speed 1520mm 60"cut \$ 2,390  
Turfmaster Parkmowers Mid-Mow 1520mm 60"cut \$ 3,565  
Turbo Orchard Mowers (Hort. use) 72"cut \$ 5,650  
Heavy Duty Rotary Slasher 60HP PTO,60"cut,4 blades \$ 3,280

#### Giltrap: (Incudes freight)

	South Is.	North Is.
1.2m to 1.5m cutting width	\$1970 to \$2920	\$1770 to \$2720
2.3m to 3.0m cutting width	\$5950 to \$7540	\$5700 to \$7190

#### Howard:

LD Rotoslasher (2 blade)	\$1839 to \$2042
MD Rotoslasher (4 blade)	\$2992 to \$3173
HD Rotoslasher (4 Blade)	\$3680 to \$3986
EHD Rotoslasher (2 Blade)	\$5014 to \$7691

**Mower Conditioners**

Taarup: T307 Mower Conditioner	\$29,359
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Kuhn: FC 202 - 300	\$12,550 to \$27,514
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## Claas:

WM275C trailed 2 drum 4 knives per drum 2.75m width	\$22,050
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Lely: 240C 2.4m width power requirement 41HP	\$12,650
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Feco: Trailed	\$25,990 to \$28,950
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Reese Engineering: 2.07m cut	\$6,570
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**2.21.6 Hay Making Equipment**

(see section 2.21.10 for silage wagons etc.)

**Hay Rakes and Tedders**

Lely Lotus Tedder: 3 to 6m working width	\$ 4,485 to \$9,900
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Kuhn: Gyrotedder	\$3,575 to \$6,750
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Feco: Haybob and Grassbob models	\$4,650 to \$5,350
Grasspa and Maxibob models	\$5,990 to \$10,990

## Tulloch:

JF RS 335S	3.35m, single rotor, fully mounted	\$6,550
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JF CR 320	3.2 m, twin rotor , V belt drive	\$4,680
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Gehl PR 414	9' 6" parallel bar rake, ground drive	\$9,880
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## Tulloch-Kverneland:

Standard Buckrake	1100/1400 mm tines	\$ 1,760 to \$ 1,905
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Heavy Duty push off model	1400mm tines	\$ 4,485
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## Reese Engineering Ltd:

UFO tedder/rake & Hayzip tedder rake	\$5,720 and \$4,650
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**Conventional Balers**

Ford New Holland: NH 326 Rectangular Baler	\$ 26,108
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## Tulloch:

Jones 155/160	14" x 18" baler	\$20,570 to \$22,825
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## Claas:

Markant 55/65 pickup	width 1.65 to 1.85m	\$18,500 to \$21,500
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## Big Balers - Square

Claas:		
Square Baler pickup width 2m requires 100HP		\$130,000
Vicon: MP 800 c/w hydraulic brakes		\$107,000
Ford New Holland: Medium Rectangular NH D1000		\$107,000

## Round

John Deere: 435 Round Baler		\$36,500
Vermeer: (1989 Price)		
504I 5' x 4' Round Baler		\$ 32,769
Ford New Holland: NH 848 and NH855 models		\$29,750 and \$ 39,305

## Tulloch:

Krone KR 160	Round Baler	5ft x 4ft bale	\$34,550
Gehl RB1465	Round Baler	4ft up to 5ft bale	\$32,700
Gehl RB1865	Round Baler	5ft up to 6ft bale	\$39,750

## Claas Round Balers:

Rollant 46, Bale chamber 1.2 m x 1.2 m		\$29,900
Rollant 66, Bale chamber 1.5 m x 1.2 m		\$33,000
Rollant 85, Bale chamber 1.8 m x 1.5 m		\$37,300

## Baling Twine

Donaghys:		
Heavy/Medium Sisal		\$136.80 to \$164.96 /Bale
Big Round Super Film Baler Twine		\$149.20/Bale
Bulky/Contractor		\$164.20/Bale and \$174.60/Bale

## Hay Handling Equipment

Duncan:		
Read Sidewinder	- 3 Point Linkage 1.52m	\$5,750
Mark 111	- 2 Bale Trailing 1.61m/1.83m	\$7,995 & \$8,390

Giltrap Engineering:	North Island	South Island
Round Bale Feeder	\$3,950	\$4,180

Duncan Industries Ltd:		
FM1200 Single bale side feeders	\$4,468 to \$ 5,045	
Multi-bale feeders 2-3 Bales	\$7,330 to \$7,925	

Hydes Distributors Ltd:	Big Bale Forks	From \$858
	Big Bale Impaler	From \$889

**Hay Moisture Tester**

P.D.Q. Products Ltd: Delmhorst

\$320

**2.21.7 Spray Equipment****Cropliner Range of Trailed Sprayers -**

620 to 920 mm fan, 90 to 150 l/m pump, 1000 to 2000 litres		\$10,329 to \$12,783		
	Tank size:	2000 L	1800 L	1000 L
Braglia	AR 90 litre/m	\$ 8795.00	\$ 8150.00	\$ 7709.00
Nil	AR 150 litre/m	\$ 8727.00	\$ 8108.00	\$ 7667.00
Nil	AR 120 litre/m	\$ 8467.00	\$ 7858.00	\$ 7417.00
Nil	AR 90 litre/m	\$ 7821.00	\$ 7212.00	\$ 6771.00

**Croplands Equipment Ltd:**

Fieni Airblast-Standard Fieni 620 to 920 mm \$2,979 to \$4,273

**Mini-Trailed Sprayers (non-motorized) -**

Attachment	Pump	500 litres	700 litres
Nil	AR 90 lt/m	\$3753.00	\$4003.00
	AR 70 lt/m	\$3589.00	\$3839.00
Braglia	AR 90 lt/m	\$4558.00	\$4808.00
	AR 70 lt/m	\$4394.00	\$4644.00
620mm Fan	AR 90 lt/m	\$6705.00	\$6955.00
	AR 70 lt/m	\$6541.00	\$6791.00

**Cropspray -**

Attachment	Pump	500 litres	700 litres
Nil	AR 90 lt/m	\$2950.00	\$3100.00
Braglia	AR 90 lt/m	\$3755.00	\$3905.00
620mm Fan	AR 90 lt/m	\$5902.00	\$6052.00
720mm Fan	AR 90 lt/m	\$6417.00	\$6567.00
820mm Fan	AR 90 lt/m	\$6935.00	\$7085.00

**C.B. Norwood:****T-Bar Horticultural Sprayers -**

Compakt	280 lt, 580psi	-Tractor(3pl)	\$2242.00
		-Trailer	\$3217.00
Farmpak	540 lt, 725psi	-Tractor(3pl)	\$2845.00
		-Trailer	\$3282.00

**Handgun Sprayers****C.B. Norwood:****Spray Rider ATV Handgun Sprayers -**

Sprayers -	45 litre, 4 wheeler	\$667
	70 litre, 3 & 4 wheeler	\$686
Accessories -	Base plate to hold tank	\$ 33
	Wet Boom to match Sprayrider	\$247
	Single Nozzle bandsprayer	\$161
	Atomiser Boom kit for pasture spray	\$997

Prices Exclude GST

B-114

12 Volt electric models-

	Tractor(3PL)	Flatdeck	Trailer
Compakt (280 lt) 4m boom	\$1,992	\$1,549	\$2,059
Farmpak (540 lt) 6m boom	\$2,680	\$2,950	\$3,084

Mini Electric Sprayers -

DEH Economy Handgun Sprayer			\$535
DSP100 Wheeled Boom and Handgun Sprayer complete			\$973

Micron Handheld CDA Applicator -

Microfit Herbi-Herbicides, sprayer width 1.2m			\$217
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**Waterblasters**

Ag-Equipment Specialists:

Hurricane Complete, tractor driven, 200/500 litre			\$2,395 to \$2,990
Tornado HC45 Complete, 11 hp Honda Petrol Engine			\$3,895
Wet Sandblast Attachment			\$245

**2.21.8 Tractor Trays**

Giltraps:	Tray Only	Complete
1.980 m x 1.220 m (6ft 6in x 4ft)	\$800	\$1050
2.130 m x 1.370 m (7ft x 4ft 6in)	\$840	\$1090

**2.21.9 Trailers**

Giltraps:	North Island	South Island
1.5 t trailer 2.40 x 1.83 deck	\$3,300	\$3,980
2 t tip trailer 2.75 x 1.83 deck	\$3,750	\$4,400
3 t tip trailer 2.75 x 2.3 deck	\$4,430	\$5,130
5 tonne tip trailer 3.65 x 2.3 deck	\$5,440	\$6,140
5 tonne tip trailer - on tandems	\$7,260	\$7,960

**2.21.10 Silage Wagons/Forage Harvesters/Covers**

**Silage Wagons**

Giltrap Engineering: (Freight Included) add \$800 to South Island purchases

Front-centre Feed Wagons -

Pto or hydraulic - 4.0/5.5/7.5 cu.m		\$ 8,600 to \$10,200
Hydraulic only - 5.5/7.5/9.5 cu.m		\$10,700 to \$14,960
Pto only 7.5/9.5 cu.m		\$10,320 to \$14,150

	<u>North Island</u>	<u>South Island</u>
Loader Wagons 1,37m cut		
8.25 m <sup>3</sup>	\$23,725	\$24,575
10.25 m <sup>3</sup> cross conveyor	\$27,355	\$28,205
11.5 m <sup>3</sup>	\$24,565	\$25,415
15 m <sup>3</sup>	\$28,925	\$29,825

**Claas:**

**Silage loader wagons**

Model 300T 18 Cu M Bin, 55mm cutting length	\$33,750
Model 330P 20 Cu M Bin, 45 mm cut length	\$43,750
Model 445P and 445S 33 Cu M Bin 45mm cut length	\$46,775 and \$61,725

See also section 2.22.14, concrete slabs for silage pits

**Forage Harvesters**

**Gallagher:**

Fine Cut 1.35 to 1.85 m	\$7,625 to \$10,315
Multicut 1.35 to 1.85 m	\$8,175 to \$10,700

Prices depend on capacity and differing chute types.

New Holland: NH 719 \$30,740

PZ Machines: PZ Schylla flywheel type, high capacity \$39,980

**Precision-chop Forage Harvesters**

**Tulloch:**

JF FC80	Side mounted,electric controls,40-80 HP	\$15,190
JF FC800	Side mounted,electric controls,50-100 HP	\$28,090
JF FCT900	Trailed Forage Harvester,electric controls 1000rpm, 1.8m pickup, 68-122 HP	\$34,985
Gehl CB860	Trailed High Capacity Harvester, 8 tungsten carbide knives, 6 ft pickup 60-150 PTO HP ,metal stop METAL DETECTOR	\$50,810

**Claas:**

Jaguar 75	1.75 m pickup, 85 to 150 HP	\$38,950
Jaguar 51	1.62 m pickup, 75 to 100 HP	\$29,900

**Silage/Hay Covers**

(see also Section 2.21.22)

**Agpac Plastics Ltd:**

Agtof - extra wide, super tough polythene film	
6m x 40m Black	\$236.00
12 m x 50m Black/White	\$590.00 and \$714.00
Agtof - one piece silage covers Black/White	\$1.85 and \$2.30/sq.m
Agtof - Balage Tubing 4.46m x 65mm (1.3m Round bale width)	\$282.50

**Permathene Plastics Ltd:**

**Silothene Hay/Silage Covers -**

6 m x 8 m x 150 µ	\$138.24
8 m x 15 m x 150 µ	\$345.60
10 m x 25 m x 150 µ	\$720.00
8 m x 15 m x 250 µ	\$526.80
10 m x 25 m x 250 µ	\$1097.50

**Prices Exclude GST**

**B-116**

### 2.21.11 Grain and Other Feedout Equipment

Smiths Attachments:	Small Grain Feeder for motorcycle	\$1080
	Mini silage feeder for motorcycle	\$4180

Hayes:	Sheep and Goat feeders	\$614.56 to \$666.36
	Grain Bin for Feeder	\$252.50

Dan Cosgroves:		
	Feed silo grain trailer 5.5 to 8 tonnes	\$2,150 to \$2,538

### 2.21.12 Fertiliser and Manure Spreaders and Topdressers

Kuhn: Fertiliser Spreader c/w Agitator ZN 600		\$3,560
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Aitchison Industries:(ex Wanganui) freight paid to North Island orders, add \$50 for South Island purchases.

Oscillating Pipe-Mounted Capacity 350 to 1130 kg		\$2,409 to \$3,545
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Precision Spinner, Mounted		
Capacity 350 to 1130 kg		\$1,300 to \$3,128
Trailing Trolley		\$453

	North Is.	South Is.
Ground trailed towed by 3 or 4 wheeler		
100 kg capacity \$1060	\$1150	
Garden Maxi - PTO drive 100 kg	\$ 928	\$ 978
- Electric drive 100 kg	\$ 818	\$ 868

#### Power Farming:

Spun Steel Hopper -		
Eurospand 403L	420 kg 350 lt.capacity, 6 - 12 m spreading width	\$ 995
Eurospand HD	780 kg 650 lt.capacity, 6 - 18 m spreading width	\$1,980
Superzip	505 kg 420 lt.capacity, 10 - 12 m spreading width	\$1,520
Oscillator -		
Model 505	420 lt. 505 kg	\$2,130
Model 775	645 lt. 775 kg	\$2,650

#### Feco:

Spectra 1000	TPL 1000 litre	\$ 6,590
Spectra 1500	Trailing 1500 litre	\$10,600

#### Vicon:

PS 202M	(200 litre/4cwt capacity)	\$1,999
PS 403M	(400 litre/8cwt capacity)	\$2,990
PS 603M	(600 litre/12cwt capacity)	\$3,450

Lely:	Capacity	Spreading width	
1400 CH	600kg	6-20m	\$3,575
2400 CBH	1300kg	6-30m	\$5,500



### 2.21.13 Trucks

#### Daihatsu:

##### Diesel Delta Trucks

1.5 to 3.5 tonne 2 and 4 WD with single or double cabs	\$20,913 to \$31,200
4WD SWB Ferroza/Rocky 5 speed	\$23,373 to \$28,440

#### Ford:

Courier Petrol or diesel	\$16,262 to \$24,884
Falcon Models	\$22,929 to \$23,262
Econovan Models	\$19,196 to \$22,484

#### Mazda:

	Cab & Chassis	Pickup
2WD B2000	\$18,400	\$20,040
2WD B2200	\$22,495	\$23,925
4WD B2600 P/Steering	\$27,610	\$29,655

	Price \$
T3500 2 Tonne cab/chassis	\$30,190
T3500 3.5 Tonne	\$33,490
T3500 2.75 Tonne Double Cab 7 Seater	\$40,990

#### Nissan:

Navara Models .75 to 1 tonne	
2.5 and 3.0 litre, 2WD and 4WD 5 speed	\$18,130 to \$28,240
Patrol SWB Hardtop Pathfinder	\$37,995

#### Land Rover:

2.5 to 3.5 litre, range of cabs	\$34,900 to \$40,900
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#### Toyota:

4WD Hi-Lux models 2.2 and 2.4 litre	
Choice of cab types, petrol or diesel	\$24,440 to \$39,107
Landcruiser SWB petrol or diesel	\$34,222 to \$37,778
Landcruiser LWB petrol or diesel	\$33,333 to \$40,444
2WD Hi-Lux models 1.6 to 2.4 litre	
Choice of cab types, petrol or diesel	\$14,840 to \$23,284

#### Suzuki:

4WD Vitara	\$16,385
SJ 413P Cab & Chassis, 4X4	\$17,400

#### Isuzu:

NKR 55E 2 tonne/55EW 1.75 tonne	\$25,000 to \$30,500
NKR 57L 2.5 - 3 tonne	\$27,000
NPR 57LW 3.3 litre Cab	\$34,000
NPR 57L/59P 3 - 4 tonne	\$30,000 to \$32,500

**2.21.14 Cultivation and Planting Implements**

**Ploughs**

**Belgrave Implements:**

Trailing Mouldplough/Swivelling Mouldplough Combination		\$767 to \$917 \$1,039
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**Duncan:**

535 Royale Mounted Plough	3/4 furrow c/w landwheel Single furrow extension	\$ 4,865 to \$ 5,440 \$ 1,140
562 Semi-trailed Plough	6-8 Furrow c/w rigid skeith Single furrow extension c/w rigid skeith c/w cushion skeith	\$13,000 to \$15,331 \$ 1,555 \$ 1,630

**Clough:**

2000 TRI-LINE Series		
4 to 6 Furrow (In-furrow)		\$10,602 to \$13,166
7 to 9 Furrow (On-land)		\$17,218 to \$20,144
1000 TRI-LINE Series		
3 to 5 Furrow		\$4,279 to \$6,046

**Klough:**

Multi Plough -	3 and 4 Furrow	\$5,773 to \$7,235
Semi-mounted Auto Reset	5 and 6 Furrow	\$12,898 to \$14,680
Model 850 Plough Mounted	3 and 4 Furrow	\$4,093 to \$4,900
Model 850 Plough Semi-mounted	4 to 6 Furrow	\$8,086 to \$10,400
Model 860 Plough Semi-mounted	5 to 8 Furrow	\$10,164 to \$15,103

**Tulloch:**

**Kverneland Ploughs**

AD	4 furrow mounted plough, vari-width	\$22,100
BB	5 and 6 furrow semi-mounted plough, vari-width, spring loaded coulter	\$29,750 to \$37,450
EG	4 furrow, mounted reversible plough vari-width, hydraulic memory turnover	\$39,100

**Chisel Ploughs and Subsoilers**

**Clough:**

Goliath Chisel plough/cultivator		
7 tine (2.7 m) to 15 tine (4.3 m)		\$5,511 to \$8,057
960 3 Row Ridger		\$1,698
300 Panaerator subsoilage plough	3 to 7 legs	\$5,019 to \$9,088

**Howard:**

-Chisel plough, Heavy Duty	5 tine	\$2,540
-Paraplow		

1100 Series	3 leg standard legs and disc assembly	\$ 7,506
	trash legs and disc assembly	\$ 7,982
1800 Series	6 leg standard legs and disc assembly	\$18,475

**Aitchison:**

Prices are for the North Island, add \$100 for South Island purchases to cover the cost of freight.

	<u>Type</u>	<u>Ex Wanganui</u>
Frame 1.7 m	2 Subsoiler Tines	\$2,698
Frame 2.44 m	3 to 7 Low Draft Tines	\$2,643 to \$4,555
	3 to 7 Cushion Tines	\$2,708 to \$4,907
Frame 1.98 m	5 and 7 Low Draft Tines	\$3,929 to \$4,940
	5 and 7 Cushion Tines	\$4,038 to \$5,137
Frame 3.05 m	7 to 11 Low Draft Tines	\$5,251 to \$7,364
	7 to 11 Cushion Tines	\$5,403 to \$7,604
Attachments	Low Draft Tine/Cushion Spring Tine	\$714 to \$730
	Subsoil Tine/Depth Wheel (Pair)	\$1242 and \$806
	Subsoiler Wing Assembly/Mole plug with shackle	\$251 and \$169

**Klough:**

Soil aerator	Tines	With Coulters	Without Coulters
	3	\$2,640	\$3,500
	5	\$3,850	\$5,290
	7	\$5,039	\$7,055

Leg assembly \$495

**Discs**

**D. Cosgrove:**

Trailing Discs	- 32 and 36 Blade	\$8,325 to \$9,320
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**Duncan:**

Standard Century Disc 8' and 9'	\$5,190 to \$5,620
800 Mounted Disc 7' to 9'	\$4,900 to \$5,220

**Klough:**

Disc plough Standard 26" Disc blades 2 to 5 furrow	\$3810 to \$6865
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**Cultivators**

**Duncan:**

634 Rotacumbler 2.53m to 4.13m, 22 to 38 tines c/w crumbler	\$2,289 to \$3,062
635 Contura 4.25m to 6.20m, 42 to 62 Tines	\$5,468 to \$6,499
630 Single Bar Cultivator 3.0m to 3.6m, 11 to 17 tine	\$2,890 to \$3,630
630 2 Bar Cultivator 3.5m and 5.0m, 17 and 25 tine	\$4,080 to \$5,291

**Tulloch:**

Tulloch Cultiveler	Levelling frame with 19 cultivator tines	\$ 8,265
TKC920	3m cultivator 29 springtines crumbler	\$ 2,300

**Prices Exclude GST**

**B-120**

**Clough:**

**Standard Frame 925 Mini-Till Models.**

	<b>With Crumbler</b>	<b>Less Crumbler</b>
1.6m to 2.6, 13 to 17 tine	\$1,563 to \$1,881	\$1,056 to \$1,229
Helper Tines	extra \$12.18	
<b>923 Wide Line Trailing Maxi-Till</b>		
5.5 to 7.8m, 54 & 82 tine	\$13,243 to \$15,216	\$10,819 to \$12,531
<b>920 Mounted Maxi-Till Standard Models</b>		
2.4 to 4.0m, 22 & 38 tine	\$2,289 to \$3,062	\$1,685 to \$2,324
<b>929 Contura - Foldup mounted Maxi-till</b>		
4.25 to 6.2m, 42 to 62 tine comes with crumbler		\$5,468 to \$6,499

**Aitchison Industries:**

Includes freight in North Island, add \$100 for South Island purchases.

**Easyflow Cultivators -**

1.83m, 4 tool bars, 17 tines/ with crumbler roller	\$1,461/\$2,008
3.05m, 4 tool bars, 29 tines/ with crumbler roller	\$1,996/\$2,746
4.26m, 4 tool bars, 43 tine (3 crumbler rollers fitted)	\$ 5,093

**Soil Aerators**

<b>Standard Subtill</b>	<b>with disc</b>	<b>without disc</b>
1.04m, 1 tine	\$1,116	\$ 929
1.65m, 3 tine	\$2,758	\$2,043
2.40m, 7 tine	\$5,197	\$3,528
<b>Orchardised Frame Subtill</b>		
1.24m, 1 tine	\$1,166	\$ 929
1.24m, 3 tine	\$2,793	\$1,566
<b>Orchard Root Pruner DR 100 single tine</b>	\$1,525	

**Lely:**

**Roterra**

1.5m to 2.5m, 60 to 100 HP required	\$5,640 to \$9,900
3.0m to 4.0m, 100 to 180 HP required	\$10,700 to \$17,200

**Belgrave Implements:**

<b>Griffin Slicer - ground aerator</b>	<b>6" Knives</b>	<b>9" Knives</b>
1.42m (3 ft) wide	\$1,640	\$1,743
1.83m (6 ft) wide	\$2,560	\$2,707

**Gallagher:**

<b>Subsoiler and Shakeaerator 1.4m to 2.4m, 2-4 shank</b>	\$2320 to \$4550
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**Rotary Cultivators**

**Howard:**

<b>HR30 Rotaharrow</b>	<b>2.55 m</b>	<b>3.05 m</b>
Trash Rotor, 67kw 540 or 1000pto	\$12,495	\$12,838
<b>Rotovator models</b>		\$ 2,772 to \$13,810

Duncan:  
 636 Wideline Trailing Rota Crumbler  
 5.5m, 54 Tine, with crumbler \$13,242, less crumbler \$10,819  
 7.1m, 64 Tine, with crumbler \$14,043, less crumbler \$11,540

Central Equipment Co.:  
 Vibratiller 2.4m with soil crumbler \$3000

Kuhn:  
 EL 25 105 and 130 cm cut \$3,350 to \$3,850  
 EL 80 230 cm cut \$9,870

Power Equipment:  
 Self propelled rotary hoe 7 HP \$2,670

**Power Harrows**

Vicon:  
 SE 300 3m and 4.5m width \$7,784 to \$11,480  
 Kuhn: HR 301M models \$14,250 to \$16,995

Howard:  
 HK 20 2.5m/HK 30 3.05m width \$13,258 to \$17,263

**Harrows (conventional):**

Duncan:  
 Zig-Zag Harrows 1 leaf (less drawbar) \$310  
 4 leaf bar \$229  
 Self-clearing Harrows 1 leaf (less drawbar) \$194  
 3 leaf bar only \$226  
 5 leaf bar only \$339  
 Drill Covering Harrows Single leaf (less bar) \$129  
 4 leaf bar and sliders \$ 80  
 3/4/5 leaves - bar and sliders \$460 to \$752

Hydes Distributors Ltd:  
 Tyne harrows per leaf \$344

**Rollers - Cambridge Rollers**

Belgrave Implements: \$2,650 to \$3,400

Tulloch-Vaderstad:  
 6 to 10m hydraulic folding to 3m width \$16,480 to \$28,950

**Field Rollers**

Duncan:  
 2.7m/3.0m (9'/10') Standard Rings (630 mm/26") \$3,547 to \$3,814  
 3.0m (10') Deep 'V' Rings \$4,286

**Prices Exclude GST**

**B-122**

Belgrave Implements:  
 3 pt linkage ground roller, 3 drums \$3,239

**Heavy Rollers**

Hydes:  
 Water Ballast Heavy Rollers from \$6,000 to \$16,000

**Drills and Seed Boxes**

Duncan:  
 712 Agvance 15 to 23 Run Hoe Coulter \$13,030 to \$15,9607  
 34 Multiseeder Triple Disc STD  
     15 Run to 23 Run \$20,780 to \$28,150  
 750 Tillseeder 11 Run and 15 Run \$7,990 to \$8,990  
 Eclipse Sowing Box 15 Run Front/Rear \$ 2,094 to \$ 2,278

Aitchison Industries: (freight included) add \$100 to South Island purchases.

Seedmatic 1000 Series Linkage Drill -Seed Only  
 12, 16, and 20 row 1.8/2.44/3.0m \$7,964 to \$9,255

Seedmatic 1100 Series Linkage Drills - Seed and Fertiliser  
 12 to 20 row, 1.8m to 3.0m \$ 9,448 to \$11,193

Seedmatic 1100 "T" Trailed Series - Seed and Fertiliser  
 12, 16, and 20 row, 1.8m to 3.0m \$11,842 to \$13,587

Seedmatic 1100 Coulter Trailed Drill - Seed and Fertiliser  
 12 to 20 row, 1.8m to 3.0m \$13,694 to \$16,674

Tulloch:  
 Air Seed Drill  
 DL 4.5m working width, 32 coulters, row spacing 140mm \$24,200  
 DT 6 m working width, 48 coulters, row spacing 140mm \$34,620

Vicon:  
 LZ 301 (3m, 24 run, 125mm spacings) \$12,990  
 LZ 451 (4.5m, 32 run, 140mm spacing) \$16,750

Lely: Polymat pneumatic drill 300N \$15,300

**Precision Drills**

Howard:  
 Stanhay Precision Drill  
 S981 Single unit \$1,688  
 S981 3 to 6 Row \$7,466 to \$11,329  
 SV255 6 Row complete drill \$17,474

## **Transplanters**

Howard:

Super Prefer Transplanter 1 or 2 row machine \$2,307 or \$4,015

## **Tree planting auger**

Aitichison Industries:

152mm to 304mm diameter, adjustable from 0.43m to 0.61m long, replaceable cutter and

Tungsten Carbide tip \$140.10 to \$182.50

38 cm extensions to fit all above \$52.19

## **2.21.15 Combine Harvesters/Headers**

Claas:

DOM 86 15' Cutter Bar 120 HP Mech. Drive \$130,000

DOM 96 17' Cutter Bar 150 HP Hyd. Drive \$150,000

DOM 115CS 20' Cutter Bar 250 HP Hyd. Drive \$170,000

John Deere: JD 107 \$148,000

## **2.21.16 Windrowers**

Claas:

3.2/3.3m width \$5,320 to 5,680

3.8/6.6m width \$6,880 to \$12,400

Lely: Rotonde 510 Any width from 3.85 to 5.1m \$7940

## **2.21.17 Maize Choppers**

Feco: Model MH 805 and 1060su \$8,950 to \$26,950

Claas: Single Row Maize Choppers (Jaguar 35) \$ 16,625

## **2.21.18 Farm Bulldozers**

Gough Gough and Hamer: Caterpillar range

D3C 54kw (73HP)/D4C 63kW (84HP) \$98,000 and \$118,000

AG4/AG6 72kw(125 HP) to 179 kW(240 HP) \$150,000 and \$270,000

Challenger 65 201kw/270 gross HP \$260,000

## **2.21.19 Chainsaws, Welders and Other Equipment**

See also section 2.20.6, fencing equipment.

### **Chainsaws**

Where chainsaws have variable bar lengths available, price quoted is for smallest bar.

Russell Thomas Engineers:

Sachs-Dolmar Bar Size

33cc/43cc 14"/15" \$408.00 to \$621.33

52cc/68cc 18"/21" \$710.22 to \$861.33

McCulloch

32 to 50cc 14 to 20" \$265.78 to \$621.33

57 to 82cc 16 to 24" \$576.89 to \$799.11

Electric 1250/1300W 14" \$212.44 to \$230.22

**Prices Exclude GST**

**B-124**

### Brushcutters/Trimmers

Russel Thomas Engineers:

McCulloch	Brushcutter 21cc to 38cc	\$408 to \$684
	Hedge trimmer 21cc	\$443.56

Quinn-Baleboys Ltd:

Vine Trimmer	Unit Only	Fitted to tractor
	\$4,700 to \$12,650	\$5,200 to \$14,460

### Forklifts

Quinn-Baleboys:

Lift Height	Lift Capacity	
1.5m	750-1250kg	\$2,350 to \$2,700
2.0m	450-2000kg	\$1,790 to \$4,300
>2.4m	750-2000kg	\$2,480 to \$4,600

### Portable Generators and Welders

Lincoln Electric:

140 MS/AC225S (415 volt)	\$440 to \$977
Tractapac (basic)	\$1,685
Weldanpower 175/225 Petrol	\$ 3,123 to \$5,582
Weldanpower 175/225 Diesel	\$ 4,816 to \$8,066

Howard:

#### Multiwork Welder/Generator

Multiwork B/130 c/w welding kit	
2 kw Generator at 220v A.C. 130AMP D.C. welder.	\$2,201

Honda Power Equipment:

EM 650	550v AC output	12v DC 8.3 Amps	\$1,090
EG1900	1900v AC output		\$1,560
EB3000	3000v AC output		\$2,290
EB4500	4500v AC output	12v DC 8.3 Amps	\$2,890
HA4000	5500v AC output		\$2,480

#### 2.21.20 Safety Equipment

Croplands Equipment Ltd:

Air Hood c/w Arbin Tractor Mounted Filter and Portable Filter	\$2,050
Air Hood c/w Arbin Tractor Mounted Filter	\$1,490
Air Hood c/w Portable Filter	\$ 974
Klean Air Hood only	\$ 420
Arbin Tractor Mounted Filter only	\$ 930

Wormald:

Chemical spray suit (polyaminated, elastic cuff, with hood)	\$69.40
-Crop spraying helmet	
Dust master (tyvek mask) flexible hose,filter motor unit	\$446.82
AH50 Airstream Helmet (Racool product)	
Complete respiratory protection	\$831.90

B-125

Prices Exclude GST



**Fire extinguishers:**

3 classifications

- A (solids-wood, paper, textiles)
- B (burning liquids - gas fuel oil etc.)
- C (electrical - motors, switches, appliances)

Dry powder (A, B, and C classification)

0.9kg/2.5kg/4.5kg

\$56.50/\$191.00/\$314.00

BCF range (B and C classification)-1kg to 5.45kg

\$181 to \$559

Antiexplosive containers

Explosafe for liquids (petrol and diesel)

4.5 litre

\$54.46

11.24 litre

\$84.49

22.50 litre

\$130.27

**2.21.21 Protection (Crop)**

Frost Alarm - No longer manufactured but can be constructed with separate components for around \$400.00.

Permathene Plastics Ltd: Birdnetting

3m x 50m

\$144.00

3m x 100m

\$273.00

Carnation and flower netting - quoted to requirements.

Marix frost protection

2m x 100m

\$250.00

Marix thermal screening

2m x 100m

\$494.00

Croplands Equipment Ltd:

Purivox Bird Scarers - Operate from propane gas.

Triplex c/w Timer (protecting 1 to 2 ha.)

\$793.00

Triplex Caroused c/w Timer (protecting 4 to 5 ha.)

\$1095.00

**Tarpaulins**

Straightline Canvas:

Hay Covers - PVC

\$ 9.60/ sq. metre

Trucks - PVC/Canvas

\$18.90 to \$22.20/ sq. metre

## 2.22 BUILDINGS

### 2.22.1 Building Permit Charges

Palmerston North City Corporation Charges:

Permit Value (Up to and including)	Fee	Permit Value	Fee
\$1,500	\$48	\$80,000	\$760
\$3,000	\$96	\$100,000	\$841
\$5,000	\$144	\$120,000	\$922
\$10,000	\$225	\$140,000	\$1,003
\$20,000	\$355	\$160,000	\$1,084
\$30,000	\$436	\$200,000	\$1,165
\$40,000	\$517	\$250,000	\$1,246
\$50,000	\$598	\$300,000	1,327
\$60,000	\$678	Every Additional \$50,000	\$81

### 2.22.2 Bridges

C. & F. Industries: ( Ex Depot Carterton )

3.6m x 3.3m wide	\$ 1,207	15 m x 3.8m wide	\$14,395
6.0m x 3.8m wide	\$ 4,908	18 m x 3.8m wide	\$18,434
9.0m x 3.8m wide	\$ 7,081	21 m x 3.8m wide	\$22,485
12 m x 3.8m wide	\$10,134	24 m x 3.8m wide	\$28,780

### 2.22.3 Dairy Sheds

The cost of building dairy sheds varies considerably depending on type of dairy operation, 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.

Alfa-Laval:

#### **Rotary Dairies**

Ardco - Milking systems from Alfa-Laval (without platform)

	HP102	EP100
	\$	\$
16 Unit	15 183	19 585
20 Unit	17 125	22 069
24 Unit	19 550	25 317
28 Unit	21 810	28 107
32 Unit	33 568	37 452
36 Unit	35 910	40 161
40 Unit	38 182	42 784
48 Unit	42 996	48 834

## Turnstyle

Conventional platform milking systems (with platform)	HP102 \$	EP100 \$
16 Unit	16 572	20 939
20 Unit	18 785	23 681
24 Unit	21 327	27 047
28 Unit	24 234	30 637
32 Unit	26 730	33 662
36 Unit	29 025	36 499
40 Unit	31 544	39 559
Open centre milking systems		
	\$	\$
28 Unit	26 647	32 885
32 Unit	28 742	35 522
36 Unit	31 143	38 464
40 Unit	37 170	44 431
50 Unit	43 196	51 941
60 Unit	49 669	59 733

### Turn-Styles: Standard Prices -

#### 1. Turn-Style platforms, sizes 20 to 60 bails

Price varies with number of bails \$1340 to \$1159 (60 bails)

This is the installed price including all rollers, dial a speed controller, drive unit and standard bails.

#### 2. Turn-Style Flexitop (TM)

The Flexi-top can be purchased as a complete package including yards, office, store, platform, roof, walls and all concrete or any of the individual components.

	\$/Bail		
Number of Bails	20	40	60
Complete Package	\$3,947	\$3,747	\$3,315
Flexi-top Platform, Roof and Walls	\$1,840	\$1,836	\$1,739

Complete packages which involve all buildings, platform, and yards generally are in the range of \$4,200 to \$4,600/bail.

#### 3. Turn-Style components

Turn-Style Drive	Standard	\$4,450
	Heavy Duty	\$5,590
Dial a speed controller		\$1,395

#### 2.22.4 Deer complex building costs:

Includes pen \$7,500 - \$15,000

### 2.22.5 Fertiliser Bins

C. & F. Industries: Sliding Arch Fertiliser Bins

2 Bays 50 tonnes capacity	\$10,494
3 Bays 80 tonnes capacity	\$12,808
4 Bays 110 tonnes capacity	\$15,128

McKendrys: Modular Construction Concrete Bins

2m x 2m Concrete Slabs including brackets	\$200
Columns	\$125

### 2.22.6 Garages

Profile Buildings Ltd:

Garage / Workshop and Office

- Notes: 1. Prices provide a timber framing, colorsteel cladding, windows, side door 2.6m Tilda door and concrete floor which is based on the site being clear of all vegetation and level.
2. The 9.0 x 6.0 (side entry) Deluxe includes a lined and insulated room of 18 square metres with aluminium joinery. Suitable for a farm office, workshop or living quarters.

		Galvanised	Coloursteel
6.0 x 3.6m	Single Garage	\$ 3,145	\$3,794
6.0 x 6.0m	Double Garage	\$ 4,436	\$5,259
9.0 x 6.0m	(Side Entry) Deluxe		\$7,978

Ahead Farm Buildings:

Ideal large garage 6.0 x 7.2m 2 doors	\$4,310
Packing Shed/Garage 6.0 x 9.6m 1 door	\$4,881

### 2.22.7 Grain Silos

Refer also to section 2.20.5, Silo Mesh.

Dan Cosgrove Ltd: (Silos must be bolted to concrete base.)

Model	Diam (m)	Ovrall Hght (m)	Bushel Capcty	Metric Tonnes		Wholesale Price
				Wheat	Barley	
12/3	3.66	3.51	837	22	19	\$2,386
12/6	3.66	5.95	1566	42	36	\$3,115
15/4	4.58	4.59	1733	46	39	\$3,107
18/5	5.49	5.67	3102	83	71	\$4,495
21/6	6.41	6.74	5049	136	116	\$6,463

Note: Price includes FREE DELIVERY 80 kilometres FROM TIMARU ONLY. \$2.20 per kilometre thereafter.

Transportable Silos

121	3.66	3.31	452	13	10	8	12	\$3,360
122	3.66	4.21	695	20	15	13	18	\$3,532
123	3.66	4.93	938	27	21	17	24	\$3,831

124	3.66	5.74	1191	33	27	22	30	\$4,266
125	3.66	6.55	1424	40	32	26	37	\$4,499
126	3.66	7.36	1667	46	38	31	43	\$4,835

Note: Price includes FREE DELIVERY. 80 km from Timaru to Rakaia. \$2.20 per kilometre thereafter.

When a pilot vehicle is required it is to be supplied by client.

Silos come complete with external wall ladder and bagging-off chute.

### 2.22.8 Greenhouses and Growing Tunnels

#### **Glasshouse**

Tunnel World Ltd: Kitsets (including freight)

Caps	- 2.9m width x 2m to 30m length	\$270 to \$2,085
	- 3.9m width x 2m to 30m length	\$304 to \$2,763
Units	- 5m width x 2.7m height x 8m to 30m length	\$2,776 to \$7349
	- 7m width lifted 900mm x 10m to 30m length	\$4,941 to \$10,424

Greenhouse Distributors Ltd:

4.3m x 16m to 24m twin skin with side winder	\$4,008 to \$5,390
6m x 9m to 24m twin skin lock strip fitted	\$3,704 to \$7,296
8m x 24m twin skin with side winder	\$7,224
16m x 24m twin skin with side winder	\$12,983

#### **Greenhouse Film**

Permathene Plastics Ltd:

Greenhouse ducting Film	305mm x 100m x 80 $\mu$	\$ 53.19
	460mm x 100m x 80 $\mu$	\$ 80.26
	610mm x 100m x 80 $\mu$	\$106.38

Agpac Plastics Ltd:

Infrasol 266 3 layer co-extruded Greenhouse Film (150 $\mu$ )

Width	Length	
6m/8m/10m/12m x	50m	\$658.35 to \$1,316.70
Cut length price = \$2.80/m <sup>2</sup>		

Agphane 101 -

2m x 50m rolls	125 $\mu$ to 200 $\mu$	\$157.30 to \$255.50
4m x 50m rolls	125 $\mu$ to 200 $\mu$	\$314.30 to \$511.00
Cut price length 125 $\mu$ \$2.44/m <sup>2</sup> ; 150 $\mu$ \$2.94/m <sup>2</sup> ; 200 $\mu$ \$4.15/m <sup>2</sup>		

Infrane X30 -

2m and 5m width, 100m length	\$112.20 to \$372.70
Cut price length	\$1.32/m <sup>2</sup>

#### **Glasshouse Equipment**

Exal Glasshouse Equipment Ltd:

Irrigation Controllers

8 station, twin programme, battery backup	\$475.00
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Prices Exclude GST

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<b>Soil Warming Cables</b>			
20', 75 watt, suit 5 sq.ft. / 40', 15 watt, suit 10 sq.ft			\$51.00/\$73.87
160', 600 watt, suit 40 sqft			\$219.38
<b>Fan Electric Air Heaters</b>			
10 to 20 kW standard 12 to 15" blade			\$800 to \$1250
30 to 60 kW standard 15 to 18" blade			\$1450 to \$2300
<b>Ventilation Fans</b>			
EM 30	30 inch	10,500 cfm	\$1250
EM 48	48 inch	21,500 cfm	\$1590
Fanjet EC 30	Fresh air or recirculating		\$1670
<b>Exal Ventilation Fansets</b>			
18 inch	5000 cfm	Fresh air or recirc.	\$530
24 inch	6500 cfm	Fresh air or recirc.	\$825
<b>Thermostats</b>			
PRIVA PTO 50 waterproof			\$96
Capillary tube soil warming			\$72
Capillary tube with phase interrupt plug			\$80
Humidity Gauges Wet bulb, Dry bulb with easy chart			\$51
<b>Environment Controllers</b>			
Auto control of wind/leeward vents, heating control			\$1100

### **2.22.9 Haybarns/Implement Sheds**

#### **Ahead Farm Buildings: (Kitsets)**

Haybarn/Implement Shed 6m x 7.2m \$3,254 to \$3,553

Multipurpose Buildings 6m Span \$3,829 to \$6,880

2/3/4/5 Bay

#### **P & T Holdings:**

<b>Gable Haysheds</b>	<b>Bale Capacity</b>	<b>Kitset</b>	<b>Erected</b>
3 Bays	2100	\$ 5,800	\$ 6,400
4 Bays	2800	\$ 7,100	\$ 8,100
5 Bays	3500	\$ 8,700	\$ 9,800
<b>Half Round Haysheds</b>			
2 Bays	1300	\$ 4,000	\$ 4,650
3 Bays	1900	\$ 5,650	\$ 6,400
4 Bays	2600	\$ 7,200	\$ 8,350
5 Bays	3300	\$ 9,000	\$10,500
6 Bays	4000	\$10,700	\$12,450

**Brownbuilt:**

Implement Sheds - Wide span lean-to  
 single bay 9.8m x 7.7m x 3.3m  
 3 bay 29.5m x 7.7m x 3.3m

\$ 8043 (kitset)  
 \$17826 (kitset)

**-Multi-purpose Gable**

3 bay 14.52m x 9.3m x 3.52m (tot. encl.)  
 3 bay 14.52m x 11.4m x 4.32m (tot. encl.)  
 3 bay clear span steel building  
 18.0m x 15.0m x 5.0m (tot. encl.)

\$13743 (kitset)  
 \$17813 (kitset)  
 \$30427 (kitset)

**C. & F. Industries:**  
**Haysheds (Kitset)**

<u>Bays</u>	<u>Bales</u>	<u>Circular</u>	<u>Lean - To</u>
1	500 - 550	-	\$ 3,728
2	1000 - 1100	\$3,521	\$ 5,361
3	1500 - 1650	\$4,966	\$ 6,995
4	2000 - 2250	\$6,417	\$ 8,633
5	2500 - 2750	\$7,848	\$10,265
6	3000 - 3250	\$9,311	\$11,898
EndWall		\$1,080	
Door End Wall		\$2,160	

**Lean - To Implement Sheds**

	<u>Shed</u>	<u>Canopy</u>
1 Bay	\$ 3,253	\$ 334
2 Bays	\$ 4,756	\$ 553
3 Bays	\$ 6,259	\$ 772
4 Bays	\$ 7,773	\$ 991
5 Bays	\$ 9,273	\$1,210
6 Bays	\$10,772	\$1,429

**McAlpines:****Haybarns (Materials only)**

<u>Size</u>	<u>Metres</u>	<u>Capacity</u> (approx bales)	<u>\$</u>
3 Bay (13.5 x 6.0)		1515	\$4,451
4 Bay (18.0 x 6.0)		2025	\$5,652
5 Bay (22.5 x 6.0)		2530	\$6,380
6 Bay (27.0 x 6.0)		3050	\$8,052

**McVicar Timber Group Ltd:****Hay Barn Poles**

125mm x 3.0m/4.2m/5.4m

\$18.89 to \$40.76

**Prices Exclude GST**

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**2.22.10 Houses**

New cost varies considerably but is approximately \$800 per square metre (\$74 per square foot) for an average farm homestead.

**Cottages**

Profile Buildings Ltd:

Sleepouts/Cabins/Singlemans Quarters/Shearers Quarters

1 Self Contained Unit 3.6m x 4.0m		\$7,360
1 Bedroom	Concrete Floor	\$37,347
2 Bedroom	Standard, Concrete Floor	\$45,612
	Budget Home, Concrete Floor	\$37,617
3 Bedroom	Concrete Floor	\$52,602

**Beazley Homes:**

Complete paint and wallpaper, stove, sink, vanity unit etc., woodgrain hardiplank with iron roof, free delivery within 30 km of construction site.

1 Bedroom house (37.8 sq.metres)		\$40,267
2 Bedroom house (67-84 sq.metres)		\$56,356 to \$64,533
3 Bedroom house Budget Homes (73-82.5 sq.metres)		\$53,244 to \$56,178
4 Bedroom house (>125 sq.metres)		\$80,000+

**Framohs Industries: (ex Christchurch)**

Interlocking solid timber homes.

<u>Model</u>	<u>Bedroom</u>	<u>Area</u> Square metres	<u>Kitset 3</u>	<u>Kitset 1</u>	<u>Erected</u>
201	2	52	\$ 30262	\$ 34510	\$ 51809
204	2	75	\$ 42000	\$ 47130	\$ 66160
205	2	88	\$ 51417	\$ 57170	\$ 79620
304	3	99	\$ 53146	\$ 59600	\$ 84100
301	3	132	\$ 66280	\$ 74090	\$107790
314	3	144	\$ 95082	\$107241	\$144941
404	4	164	\$ 91160	\$100544	\$140292
401	4	170	\$ 89035	\$ 97994	\$141093

**Note:**

Kitset 3

Walls. Windows. Exterior and interior doors. Ground floor joists, flooring, sisalation. First joists and flooring (where shown). Verandah flooring, railing and posts (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 1

As Kitset 3, plus:

Kitchen joinery. Plumbing fittings. Wardrobes. Cupboards.

Erected

All kitset 1, erected and painted plus:

Electrical installations. Plumbing installations. An allowance for a stove, drainage and foundations.



### 2.22.11 Killing Sheds

Prices average around \$2,400

### 2.22.12 Piggeries (Circular Arch)

C. & F. Industries:

<u>Bays</u>	<u>length</u>	<u>Price</u>
2/3	6/9 m	\$11,157 to \$13,598
4/5	12/15 m	\$16,030 to \$18,444
6	18 m	\$20,855
Vents - each		\$ 811

### 2.22.13 Shelters (Stock)

C. & F. Industries: Goat/Calf Shelters

\$1,063 to \$1,959

Ahead Farm Buildings: Calf/Goat Shed

\$2,601/\$3,623

### 2.22.14 Silage Pits

McKendrys:

Modular 2m x 2m slabs including brackets \$200

Columns \$125

Note can be used as fertiliser bins

### 2.22.15 Woolshed/Covered Yards

C. & F. Industries:

Crossflo Woolshed

Standard 3 Stand \$38,719

Each Additional Shearing Stand \$ 3,298

Each Additional Woolroom Bay \$ 3,368

Each Additional Yard Bay \$ 3,102

Raised Board \$ 916

Sheep Grating Panels Wooden 2.4m x 1.2m \$63.09 per sq. m

### 2.22.16 Yards

Sheep Vary markedly - guide only: \$6500 - \$12000

Cattle Building costs: 17m x 13.3m approximately \$7,500

Includes portable ramp

### 2.22.17 Building Materials

Cement Products

Firth Industries:

Hydrated Lime \$0.60/ kg

Milburn Cement (Grey) \$11.33/ 40 kg bag

Handicrete/Mortarmix \$8.89/ 40 kg bag

Mortamix \$8.89/ 40 kg bag

Builders Mix \$34.10/Cubic metre

Prices Exclude GST

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Crusher Dust	\$38.36/Cubic metre
Mortar Sand	\$91.27/Cubic metre
White Cement	\$89.60/Cubic metre

Higgins Redimix Concrete: (Ex Palmerston North and Fielding)

<u>MPa</u>	<u>20 mm</u>	<u>14 mm</u>
	<u>\$/Cu.M</u>	<u>\$/Cu.M</u>
10/15/17.5/20	\$99 to \$130	\$104 to \$135
25/30/35/40	\$146 to \$195	\$151 to \$200
Blockfill	\$171.00	
Kerb Mix	\$140.00	

Small load Surcharge	0 Cu.m.- 2 Cu. m.	\$30.00 / load
Rural Delivery	\$5.00/Load/Km one way over 10 km	

## 2.23 SHELTER AND FARM FORESTRY COSTS

### 2.23.1 Shelter Plants

The prices shown below are the approximate cost per 100 for trees commonly grown on the farm. The price does not include planting.

Gibbs Nurseries Ltd: (Dannevirke)	
Abelia (Chinese Floribunda)	\$125/100
Acacia (Black Wattle)	\$ 85/100
Alnus Cordata	\$173/100
Cedrus Deodara (Indian Cedar) 2 year	\$116/100
Chamaecyparis Lawsoniana 2 year	\$107/100
Cupressus all varieties 2 year trees	\$107/100
Cortaderia spp. 2 year (Pampas)	\$ 53/100
Eucalyptus spp. 2 year	\$160/100
Pinus Radiata 2 year	\$ 85/100
Populus spp.	\$116/100
Douglas Fir (Oregon)	\$ 85/100
Salix Matsudana	\$116/100

#### Halketts Nursery: (Christchurch-Freight paid by purchaser)

	Price per 10	Price per 100	Price per 1000
Pinus Radiata 1 year		\$ 27.55	\$133.33
2 year hedging grade		\$ 33.78	\$173.33
Pinus Muricata 2 year		\$ 51.56	
Pinus Coulterii	\$14.67	\$120.89	
Pinus Nigra 2 year		\$ 47.11	\$297.78
3 year		\$ 51.36	\$324.44
Pinus Patula	\$14.67	\$120.89	
Macrocarpa	\$14.67	\$120.89	
Poplar- all cultivars	\$10.66	\$ 66.66	
Douglas Fir/Oregon 2 year		\$ 51.36	\$320.00
3 year		\$ 62.22	\$373.33
Cedrus deodara 2 year	\$ 8.88	\$ 68.44	
Eucalyptus- all cultivars	\$14.67	\$120.89	
Willows - all cultivars	\$10.66	\$ 66.66	
Wattles - all cultivars	\$14.67	\$120.89	
Acer Negundo (Box Elder) 3m tall	\$84.44		
Alnus Glutinosa (Black Alder)	\$14.67	\$120.89	
Betula Pendula (Silver Birch)	\$48.89		
Cortaderia Selloana (Pampas Grass)	\$10.22	\$ 78.22	
Phormium Tenax (N.Z. Native Flax)	\$14.67	\$120.89	
Dononea Viscosa	\$14.67	\$120.89	
Leyland Cypress	\$36.44	\$311.11	

Prices Exclude GST

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Millichamps: (Ashburton)	Price/100
Abies (silver firs) 20-30 cm	\$66.67
Acacia Melanoxyton 70-100 cm	\$222.22
Cedrus atlantica glauca 40-50 cm	\$88.89
Cedrus deodara aurea 30-40 cm	\$75.56
Cupressocyparis Leylandii (not including tubes)	\$231.11
Salix Matsudana (Willow)	\$66.67
Cypress - all cupressus cultivars 40-50 cm	\$57.78
Larix spp. (larches) 50-80 cm	\$66.67
Picea spp. (Spruces) 40-50 cm	\$62.22
Eucalyptus all species (in roottrainers)	\$111.11
Populus spp. depending on height	\$75 to \$80.00
Pinus spp. 30-60 cm	\$23 to 53.33

Appleton's Tree Nursery:	Price/100
Acacia Melanoxyton 25-50 cm	\$54.00
Cupressus lucitanica 25-50 cm	\$54.00
Larix spp 50-75 cm	\$70.00
Pinus Muricata 30-50 cm	\$30.00
Pinus Radiata 20-45 cm	\$21.00

### 2.2.3.2 Shelter and Windbreak Cloth

Donaghys:

<u>Width</u>	<u>Length</u>	<u>Price/Roll</u>
Windbreak Cloth		
3ft (0.91 m)	50 m	\$ 54.00
6ft (1.83 m)	50 m	\$102.00
9ft (2.74 m)	50 m	\$150.00

Shade Cloth (Woven)

<u>Grade</u>	<u>Roll Size</u>	<u>Price/Roll</u>
V. light Shading	6ft (1.83m) x 50m	\$113.00
Light Shading	6ft (1.83m) x 50m	\$124.00
Medium Shading	6ft (1.83m) x 50m	\$150.00
Heavy Shading	6ft (1.83m) x 50m	\$177.00

Shade Cloth (Knitted)

<u>Grade</u>	<u>Roll Size</u>	<u>Price/Roll</u>
Very light Shading	6ft (1.83m) x 50m	\$140.00
Light Shading	6ft (1.83m) x 50m	\$155.00
Medium Shading	6ft (1.83m) x 50m	\$195.00
Heavy Shading	6ft (1.83m) x 50m	\$225.00

Permathene Plastics Ltd:

Solarshade (woven shadecloth)		
	1.83m x 50m - 32% shading	\$263.69
	1.83m x 50m - 50% shading	\$285.81

	1.83m x 50m - 70% shading	\$352.54
	1.83m x 50m - 80% shading	\$506.33
Windstop (windbreak cloth)		
	91cm x 50m	\$ 98.57
	183cm x 50m	\$169.25
	274cm x 50m	\$321.30
Permaclips (solarshade and windstop clips)		
	500 per ctn	\$100.00
Birdnetting	3 m x 50m	\$144.00
Haitex	6.5 m x 50m	\$663.08
Weedtex	0.91m x 50m	\$128.88
	3.85m x 50m	\$490.00

### **2.23.3 Farm Forestry Labour Costs**

The Forest Service Work Study Units have compiled a set of Labour Value Charts giving detailed labour content and costs for a range of forestry operations.

The full document is available from the New Zealand Timberlands Ltd.

## **2.24 COMPUTERS**

### **2.24.1 Farmers Requirements**

An Australian survey gave the following farmer ranking of the future uses of their on farm computer. These are, in decreasing order:

- Farm financial record-keeping/analysis.
- Farm physical record-keeping/analysis.
- 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.
- Games for teaching and family use.

### **2.24.2 Guides for Purchasing a Farm Micro-Computer**

Three questions should be answered before making a final decision to purchase a micro-computer. These are:

- What are the current requirements and problems on the property?
- Can these be best fulfilled or overcome using a micro-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.
- General Criteria.
- Hardware.
- Software.

#### **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?

#### **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 language reduce the usable 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?

**Software**

- Are the programs written in a language which the computer can handle?
- Do the programs meet the requirements of the farm or farmer?
- Are the programs technically correct?
- Are the programs user orientated?
- Is there adequate back-up support if problems occur, or the farmer changes his policy or legislation changes, e.g. tax changes?
- Are the data required to run the programs readily available?
- Can a farmer write the programs himself?

**2.24.3 General Guidelines**

One of the most important criteria is the available memory after loading the operating system: -

1. Require at least 256K for a MSDOS ( or compatible ) computer.
2. Need two disk drives or a hard disc to increase storage.
3. Visual display unit (V.D.U.) with 24 lines by 80 characters.
4. Computer should be IBM compatible.  
Note: A computer with this sort of capability could be expected to cost within the range of \$1,500 to \$6,000.
5. 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 printer for general farming use would cost between \$400 and \$800.
6. A farmer would normally require the following software:
  - Financial Recording system
  - Word processing
  - Budgeting
  - Spread sheet
  - Database packages
 These may be purchased separately or as a collective package in some cases. Cost would be in the vicinity of \$2,500 to \$3,500.

In many cases some software may be included as part of the total price when purchasing the computer itself.

**2.24.4 Hardware Prices**

A very wide range of computers are available, however as long as the computer is an IBM compatible the actual brand is not that important.

As an example the cost of a computer with 20mb hard disk is \$2,555.

Commodore Computers (NZ) Ltd:

PC10-111 Single Drive / Mono Monitor	\$2,225
PC10-111 20MB Hard Disk Drive / Mono Monitor	\$2,555
PC10-111 20MB Hard Disk Drive / Colour Monitor EGA	\$3,830
PC10-111 20MB Hard Disk Drive / Colour Monitor VGA	\$4,250

PC10-111	20MB Hard Disk Drive/Mono Screen/Printer Pack	\$3,195
PC-40 AT	20MB Hard Disk/Mono Monitor/Printer	\$3,390
PC-40 AT	20MB Hard Disk/EGA Graphics/Colour Monitor and printer	\$5,040
PC-40 AT	40MB Hard Disk/VGA Graphics/Colour Monitor and printer	\$5,695
PC-50 AT	1 MB RAM/PVGA Graphics/Colour Monitor	
	3.25" 1.44MB disk drive - 0 MB Hard disk	\$6,080
	- 40 MB Hard disk	\$6,780
	- 100 Mb Hard Disk	\$7,580

**Barson Computers - BBC Archimedes:**

A3000	1 MB RAM/800k Disc Drive/Colour Monitor	\$2,996
410/1	1 MB RAM/800k Disc Drive/Colour Monitor	\$5,747
420/1	2 MB RAM/20 MB Hard Disk/800k Disc Drive	\$7,107
440/1	4 MB RAM/50 MB Hard Disk/800k Disc Drive	\$10,191

**Computerland:**

IBM PS/2 30286	1 MB RAM/30 MB Hard Disk/VGA Graphics/mono monitor	\$4,995
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Printers -	Oki Microline 320 10" wide 9 Pin Dot Matrix	\$995
	Panasonic KX-P1081 10" wide 9 Pin Dot Matrix	\$595
	Panasonic KX-P1124 11" wide 24 Pin Dot Matrix	\$1,295

**2.24.5 Software Prices**

**Kellogg Farm Management Unit: (Lincoln University)**

Breakeven Prices	\$80
Dairy Analysis Mgmt Scheme - Town Supply	\$190
Disk Reort Utility	\$85
Financial Budgeting	\$500
Financial Recording System-MSDOS version	\$880
- GST Module only - extra	\$140
- Debtors Module only - extra	\$140
- Debtors and GST - extra	\$240
- Property Amalgamation - extra, MSDOS only	\$70
Gross Margins	
- Cattle - Breeding	\$120*
- Crop	\$120
- Sheep - breeding replacements	\$120*
- Sheep - buying replacements	\$120*
Investment Analysis	\$ 60
Livestock Recording System - Pedigree	\$870
- Non-pedigree version	\$610
- Electronic Data Interface	\$220
Metric - Imperial Equivalents	\$60
Production Recording System	\$500



Table Mortgage Calculations \$70  
Price includes a User Guide for each package.  
\*If more than one stock gross margin system is purchased the price for the second and third system is reduced to 50% of the quoted price.

Computerland:

Microsoft Works - word processing, spreadsheet, database	\$495
Concept Cash Manager - easy to use	\$740
Concept Stock Records	\$540

Feedplan Systems:

Spreadsheet package for pasture probe	\$995
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**2.24.6 The Kellogg Farm Management Unit** (Lincoln University)

The objective of the Unit is to develop and support computer based management aids which are designed to assist producers and rural communities in the efficient use of their limited resources.

Packages have been designed for recording and analysis of transaction and production data for almost any type of farming system. Budgeting is also a prominent part of computer use.

The Unit also runs educational workshops and seminars for farmers and is generally involved in computer awareness programs.

Any further inquiries should be addressed to:

The Head  
Kellogg Farm Management Unit  
Lincoln University  
Canterbury

**SECTION 3**

**LIVESTOCK, CROPPING and HORTICULTURAL  
GROSS MARGINS**

**ENTERPRISE ANALYSIS**

Prepared by P.H. FLEMING B.Agr.Sc.  
Lecturer in Farm 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 farming 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 farming 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 farms are likely to show differing gross margin returns for identical enterprises, because yields and costs will differ according to each individual farm.

A critical evaluation of the gross margin technique will reveal further limitations with this form of analysis. In many instances, the farmer, consultant or student 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 stock 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 at or about 1 January 1990.

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, crutching and dipping are done by contract.

Assistance in the preparation of these gross margins has been 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	750 @ \$30 =	\$22,500	1.0	750
2 th Ewes	250 @ \$38 =	\$ 9,500	1.0	250
Ewe Hoggets	376 @ \$27 =	\$10,152	0.7	263
Rams	20 @ \$50 =	\$ 1,000	0.8	16
	<u>1,396</u>	<u>\$43,152</u>		<u>1,279</u>

Dollar Investment in sheep per stock unit = \$34

##### Production Parameters:

Lambing 97% survival to sale.

4% Death rate.

34% of hoggets culled (sold as hoggets/2ths)

60% Wether lambs sold prime (f.o.m.)

25% 2th enter flock each year.

Sell genuine 5 year old ewes.

Ewes clip 4.5 kg wool; hoggets 3.0 kg; lambs 1kg.

**Income:**

291 prime wether lambs at \$26	\$ 7,566	
303 store m.s. lambs at \$17	\$ 5,151	
111 cull hogget/2ths at \$30	\$ 3,330	
5 year old ewes, 160 at \$20	\$ 3,200	
50 cull ewes to works at \$10	\$ 500	
(Total 915 head of stock sold at \$21.60 average price per head).		
6240 kg wool at \$4.00(net)	\$24,960	
<b>TOTAL INCOME</b>		<b>\$44,707</b>

**Expenditure:**

<b>Shearing -</b>		
Shear 990 sheep @ \$135 a 100	\$1,337	
Shear 370 hoggets @ \$135 a 100	\$ 500	
Shear 690 lambs @ \$125 a 100	\$ 863	
Tup crutch 1010 ewes @ \$39 a 100	\$ 394	
Main crutch 990 ewes @ \$46 a 100	\$ 455	\$3,549
<b>Woolshed expenses -</b>		
Including shearing plant expenses and woolpacks approx. 20c a head		\$ 410
<b>Animal Health -</b>		
Drench ewes pre-lamb 990 @ 6c	\$ 59	
Drench lambs 2130 doses @ 3c (replacements drenched 4 times, stores twice)	\$ 63	
Vaccinate ewes 990 @ 22 c	\$218	
Vaccinate hoggets 370 @ 19 c	\$ 70	
Eartags, footrot and docking etc	\$425	
Dipping 1000 sheep @ 40c 690 lambs @ 40c	\$400	\$1,511
\$276		
<b>Cartage - (based on 100km travel)</b>		
Prime lambs 291 @ \$1.90	\$553	
Store lambs 303 @ \$1.62	\$491	
Cull hgts/2th/5yr ewes 271 @ \$2.27	\$615	
Works ewes 50 @ \$2.64	\$132	
Wool 35 bales @ \$11.50	\$403	\$2,194
<b>Selling Charges -</b>		
Yard fees 574 sheep @ 43c	\$247	
Commission on \$11,681 @ 5.5%	\$642	\$ 889
Ram Purchase - landed 5 @ \$225		\$1,125
<b>TOTAL DIRECT COSTS</b>		<b>\$9,678</b>
<b>TOTAL GROSS MARGIN (before interest)</b>		<b>\$35,029</b>

GROSS MARGIN per dollar invested in sheep

\$ 0.81

GROSS MARGIN per Stock Unit

\$27.39

**Gross Margin per Stock Unit at Various  
Stock Sale and Wool Prices.**

		WOOL PRICE c/kg (net)		
		340c	400c	480c
AVERAGE	\$15.00	\$19.75	\$22.68	\$26.58
STOCK SALE	\$21.60	\$24.46	\$27.39	\$31.29
PRICE	\$30.00	\$30.48	\$33.41	\$37.31
\$/HEAD				

**Interest Cost:**

Interest on Capital Stock Value:  
\$43,152 @ 15% per annum

\$6,472

RETURN per Stock Unit (after interest)

\$ 22.33



### 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	@ \$15 =	\$15,000	1.0	1,000
Rams	<u>16</u>	@ \$50 =	<u>\$ 800</u>	0.8	<u>13</u>
	1,016		\$15,800		1,013

Dollar Investment in Sheep per stock unit = \$16

#### 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 at \$26	\$28,600
527 cull ewes to works at \$10	\$ 5,270
3840 kg wool at \$4.00 (net)	\$15,360

TOTAL INCOME \$49230

#### Expenditure:

Replacement ewes 595 @ \$22	\$13,090
Shearing -	
Shear 960 sheep @ \$135 a 100	\$1,296
Tup crutch 418 ewes @ \$39 a 100	\$ 163
Main crutch 965 ewes @ \$46 a 100	\$ 444
	\$1,903
Wool Shed Expenses -	
Including shearing plant expenses and woolpacks approx. 20c a head	\$ 192
Animal Health -	
Drench ewes pre-lamb 990 @ 6c	\$ 59
Drench lambs 1100 x 2 @ 3c	\$ 66
Vaccinate ewes 990 @ 22c	\$218
Eartags, footrot and docking etc	\$190

Dipping - purchased ewes already dipped		
418 ewes @ 40c	\$167	\$700
Cartage -		
(based on 40km travel except for replacement ewes, at 80km)		
Prime lambs 1100 @ \$1.09	\$1,199	
Works ewes 527 @ \$1.50	\$ 791	
Replacement ewes 595 @ \$2.30	\$1,369	
Wool 21 bales @ \$6.86	\$ 144	\$3,503
Ram Purchase - landed 4 @ \$250		\$1,000
<b>TOTAL DIRECT COSTS</b>		<b>\$20,388</b>
<b>TOTAL GROSS MARGIN (before interest)</b>		<b>\$28,842</b>
<b>GROSS MARGIN per dollar invested in sheep</b>		<b>\$1.83</b>
<b><u>GROSS MARGIN per Stock Unit</u></b>		<b><u>\$28.47</u></b>

**Gross margin per Stock Unit at various lamb and wool prices:**

		WOOL PRICE c/kg net		
		340c	400c	480c
<b>LAMB</b>	<b>\$20</b>	\$19.68	\$21.96	\$24.98
<b>PRICE</b>	<b>\$26</b>	\$26.20	\$28.47	\$31.50
<b>\$/HEAD</b>	<b>\$35</b>	\$35.97	\$38.24	\$41.28

**Interest Cost:**

Interest on Capital Stock Value:	
\$15,800 @ 15% per annum	\$2,370
<b>RETURN per Stock Unit (after interest)</b>	<b>\$26.14</b>

### 3.2.3 Sheep - Merino Ewe

#### SHEEP GROSS MARGIN Merino Ewe Flock, Breeding Own Replacements (Low country)

#### Capital Stock Wintered:

	No.		Total	S.U.	Total S.U.
Breeding Ewes (in wool)	780	@ \$ 50 =	\$39,000	0.9	702
2 th Ewes	220	@ \$ 55 =	\$12,100	0.9	198
Ewe Hoggets	280	@ \$ 45 =	\$12,600	0.6	168
Rams	13	@ \$250 =	\$ 3,250	0.7	9
	1,293		\$66,950		1,077

Dollar Investment in Sheep per stock unit = \$62

#### Production Parameters:

Lambing 93% survival to sale.

5% death rate (ewes).

21% of hoggets culled (as hoggets/2th).

22% 2th enter the flock each year.

Ewes clip 3.7kg wool; hoggets 3.0 kg.(approx. 21 and 19 micron diameter, respectively).

#### Income:

Wether lambs 465 at \$35 (net)	\$16,275
Ewe lambs 185 at \$40 (net)	\$7,400
(Total 650 lambs at \$36.40 average price.)	
Cull hoggets/2th 54 at \$40	\$2,160
Works ewes 170 at \$10	\$1,700
3750 kg wool (21 micron) at \$10 (net)	\$37,500
840 kg wool (19 micron) at \$15 (net)	\$12,600
(Total 4,590 kg sold at \$10.90 average price per kg)	

TOTAL INCOME

\$77,635

#### Expenditure:

##### Shearing -

Shear 1000 sheep @ \$150 a 100	\$1,500	
Shear 280 hoggets @ \$150 a 100	\$ 420	
Crutch 1015 ewes @ \$51 a 100	\$ 518	\$2,438

##### Wool Shed Expenses -

Plant, packs etc approx 20c a head	\$256	
Classing etc approx. 25c a head	\$320	\$576

**Animal Health -**

Drench 990 ewes (2x) @ 38c	\$752	
Drench replacements (6x) @ 21c	\$365	
Vaccinate ewes 990 @ 22c	\$218	
Vaccinate hgtg 276 @ 19c	\$ 52	
Footvax ewes 1015 @ 70c	\$711	
Footvax hoggets (1.5x) @ 70c	\$294	
Formalin, tags, docking etc	\$500	
Dipping 1310 sheep (incl.lambs) @ 60c	\$786	\$3,678
Cartage (based on 70km travel) - cull hoggets/2th 54 @ \$1.69	\$ 91	
Works ewes 170 @ \$2.15	\$366	
Wool 26 bales @ \$9.59	\$249	\$706
Selling charges -		
Yard fees 54 @ 43c	\$ 23	
Commission \$2160 @ 5.5%	\$119	\$142
Ram Purchase - 3 @ \$750 landed		\$2,250

**TOTAL DIRECT COSTS** **\$9,790**

**TOTAL GROSS MARGIN (before interest)** **\$67,845**

**GROSS MARGIN per dollar invested in sheep** **\$1.01**

**GROSS MARGIN per Stock Unit** **\$62.99**

**Gross margin per Stock Unit at various lamb and wool prices:**

		<b>AVERAGE WOOL PRICE /kg (net)</b>		
		<b>\$8.00</b>	<b>\$10.90</b>	<b>\$16.00</b>
<b>AVGE</b>	<b>\$25</b>	\$40.66	\$53.08	\$74.75
<b>LAMB</b>			<b>\$62.99</b>	
<b>PRICE</b>	<b>\$36.40</b>	\$50.57	\$84.67	
<b>\$/HEAD</b>				
<b>(net)</b>	<b>\$50</b>	\$57.56	\$69.98	\$91.65

**Interest Cost:**

Interest on Capital Stock Value:  
\$66,950 @ 15% per annum **\$10,043**

**RETURN per Stock Unit (after interest)** **\$53.67**

### 3.2.4 Sheep - Merino Wether

**SHEEP GROSS MARGIN**  
 Merino Wether Flock, Replacement  
 by Purchase of 2th Wethers Annually.  
 (Low country)

**Capital Stock Wintered:**

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Mixed age wethers (in wool)	850	@ \$40 =	\$34,000	0.7	595
2th wethers	<u>150</u> 1,000	@ \$48 =	<u>\$7,200</u> \$41,200	0.7	<u>105</u> 700

Dollar Investment in Sheep per stock unit = \$59

**Production Parameters:**

15% 2 th wethers purchased annually.

3% Death Rate.

Wethers clip 4.3kg wool (approx. 21 micron diameter).

**Income:**

4257 kg wool at \$10.00 (net)	\$42,570
120 wethers to works at \$8 a head	\$ 960
<b>TOTAL INCOME</b>	<b>\$43,530</b>

**Expenditure:**

Replacement 2th wethers 150 @ \$40	\$6,000
Shearing -	
Shear 990 sheep @ \$155 a 100	\$1,535
Crutch 860 sheep @ \$51 a 100	\$ 439
Wool Shed Expenses -	
Plant, packs etc. approx. 20c a head	\$198
Classing etc. approx. 25c a head	\$248
Animal Health -	
Drench 990 @ 38c	\$376
Footvax 1010 @ 70c	\$707
Dipping 860 @ 60c	\$516
Formalin, tags and docking	\$250
	\$1,849

Cartage -

Replacement wethers 150 @ \$3.15	\$473	
Works wethers 120 @ \$2.15	\$258	
Wool 24 bales @ \$9.59	\$230	\$961

TOTAL DIRECT COSTS \$11,230

TOTAL GROSS MARGIN (before interest) \$32,300

GROSS MARGIN per dollar invested in sheep \$0.78

GROSS MARGIN per Stock Unit \$46.14

**Gross margin per Stock Unit at various wether purchase and wool prices:**

		WOOL PRICE \$/kg (net)		
		\$7	\$10	\$15
2th	\$55	\$24.68	\$42.93	\$73.34
WETHER				
PURCHASE	\$40	\$27.90	\$46.14	\$76.55
PRICE				
\$/HEAD	\$30	\$30.04	\$48.29	\$78.69

**Interest Cost:**

Interest on Capital Stock Value:

\$41,200 @ 15% per annum \$ 6,180

RETURN per Stock Unit (after interest) \$37.31

### 3.2.5 Beef

#### 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 @ \$500 =	\$41,000	6	492
I.C. R2yr Heifers	18 @ \$500 =	\$ 9,000	6	108
R1yr Heifers	43 @ \$300 =	\$12,900	3.5	151
R1yr Steers	43 @ \$375 =	\$16,125	4	172
Breeding Bulls	<u>3 @ \$1000 =</u>	<u>\$ 3,000</u>	5.5	<u>17</u>
	189	\$82,025		940

Dollar Investment in Cattle per stock unit = \$87

#### 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 at \$450(net)	\$18,900
18 month heifers 24 at \$380(net)	\$ 9,120
(Average price of 18 month cattle = \$424)	
Cull cows 15 at \$400(net)	\$ 6,000
Bull 1 at \$800(net)	\$ 800
TOTAL INCOME	\$34820

#### Expenditure:

##### Animal Health-

Drench calves, 86 (2x) @ 95c a dose	\$163	
- 1 injection \$1.66	\$143	
Pregnancy test - 100 cows @ \$2	\$200	\$ 506

Bull purchase - landed	\$1,600
Freight and commission (stock net on farm)	\$ 0

TOTAL DIRECT COSTS	\$2,106
TOTAL GROSS MARGIN (before feed costs and interest)	\$32,714
GROSS MARGIN per dollar invested in cattle	\$ 0.40
<u>GROSS MARGIN per Stock Unit</u>	<u>\$34.80</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	\$424	\$520
%	80%	\$27.99	\$31.93	\$38.21
<b>WEANED</b>	<b>86%</b>	\$30.27	\$34.80	\$41.50
	<b>94%</b>	\$32.92	\$37.93	\$45.35

**Interest and Feed Costs:**

Interest on Capital Stock Value:		
\$82,025 @ 15% per annum	\$12,304	
Feed - Buy in additional hay		
700 bales @ \$3.00	\$ 2,100	\$14,404
RETURN per stock unit (after interest and feed)		\$19.48



### 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 @ \$850 =	\$ 98,600	8.0	928
Milking Heifers	34 @ \$750 =	\$ 25,550	6.5	221
R 1yr Heifers	36 @ \$400 =	\$ 14,400	4.0	144
	186	\$138,500		1293

Dollar Investment in Cattle per Stock Unit = \$107

##### Production Parameters:

Milkfat Production 150 kg/cow.  
Calving 90% live calves, surplus sold within two weeks.  
Death Rate 5 %.  
Culling Rate 17%.

##### Income:

22500 kg milkfat @ \$6.00/kg	=	\$135,000
26 Cull cows @ \$430 (net)	=	\$ 11,180
97 m.s. calves @ \$75 (net)	=	\$ 7,275

**TOTAL INCOME** **\$153,455**

##### Expenditure:

Animal Health @ \$25 /cow (i.e. bloat, magnesium, mastitis, vet. etc)		\$ 3750
Artificial Breeding -		
Semen @ \$6.50 /cow	\$ 975	
Insemination -		
100 cows @ \$16.04	\$1,604	
50 cows @ \$15.14	\$ 757	\$3,336
Herd Testing (Self Sample, 8 weekly)		
First 100 cows	\$1,340	
50 cows @ \$9.16	\$ 458	\$1,798
Shed Expenses @ \$12.00 per cow (i.e. detergent, rubberware, filters etc)		\$1,800
Electricity @ \$22 /cow		\$3,300

**TOTAL DIRECT COSTS** **\$13,984**

TOTAL GROSS MARGIN (before feed costs and interest)	\$139,471
GROSS MARGIN per dollar invested in cattle	\$1.01
<u>GROSS MARGIN per Stock Unit</u>	<u>\$107.87</u>

**Gross Margin per Stock Unit at various milkfat production levels and milkfat prices:**

		MILKFAT PRICE c/kg		
		530c	600c	700c
kg	130kg	\$ 83.39	\$ 93.95	\$109.07
MILKFAT	150kg	\$ 95.69	\$107.87	\$125.27
per cow	180kg	\$114.13	\$128.75	\$149.63

**Interest and Feed costs:**

Interest on Capital Stock Value:		
\$138,500 @ 15% per annum	\$20,775	
Feed - Buy in 30% of total requirement (i.e. grazing off, hay etc) @ \$40 /cow	\$ 6,000	\$26,775
RETURN per Stock Unit (after interest and feed)		\$87.16

### 3.2.7 Deer

#### DEER GROSS MARGIN All Stag Policy - Buy in weaners and kill at 18months.

#### Capital Stock Wintered:

	No.	Total	S.U.	Total S.U.
Weaner Stags (Red Deer)	100 @ \$225 =	\$22,500	1.4	140

Dollar Investment in Deer per Stock Unit = \$161

#### Production Parameters:

Death Rate 3%  
55 kg Carcase Weight at Slaughter(18 months).  
Spiker velvet not harvested.

#### Income:

97 Stags 55 kg @ \$6.00/kg	\$32,010
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#### Expenditure:

Purchase Weaner Stags 100 @ \$210 (50 kg L.W.)	\$21,000
Animal Health @ \$5.20 a head	\$ 520
Freight-	
100 @ \$7.30	\$ 730
97 @ \$10.50	\$1,019
	\$ 1,749
Levies-	
GIB venison levy 5,335kg @ 28c/kg	\$ 1,494
MAF Fee \$4.50 a head	\$437
	\$ 1,931

TOTAL DIRECT COSTS	\$25,200
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TOTAL GROSS MARGIN (before feed costs and interest)	\$6,810
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GROSS MARGIN per dollar invested in deer	\$ 0.30
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<u>GROSS MARGIN per Stock Unit</u>	<u>\$48.64</u>
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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		
		540c	600c	700c
<b>WEANER</b>				
<b>PURCHASE</b>	\$190	\$ 40.07	\$ 62.93	\$101.04
<b>PRICE</b>	\$210	\$ 25.78	\$ 48.64	\$ 86.75
<b>\$/HEAD</b>	\$250	\$ -2.79	\$ 20.07	\$ 58.18

**Interest and Feed Costs:**

Interest on Capital Stock Value:		
\$22,500 @ 15% per annum	\$3,375	
Winter Feed - Buy in additional hay and concentrates @ \$7 a head	\$700	\$4,075
<b>RETURN per Stock Unit (after interest and feed)</b>		<b>\$19.54</b>

### 3.2.8 Deer - Breeding Herd

#### DEER GROSS MARGIN

Red Deer Herd, Selling Weaner Stags  
and Surplus Hinds as Rising 2 yr olds.

#### Capital Stock Wintered:

	<u>No.</u>	<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
M.A.Hinds	123 @ \$500 =	\$61,500	2.0	246
18 Month Hinds	27 @ \$500 =	\$13,500	2.0	54
18 Mth Hinds (sale)	35 @ \$450 =	\$15,750	2.0	70
6 Month Hinds	64 @ \$250 =	\$16,000	1.3	83
Breeding Stags	5 @ \$1,200 =	\$ 6,000	2.3	12
	254	\$112,750		465

Dollar Investment in Deer per Stock Unit = \$243

#### Production Parameters:

Calving 85% survival to sale.

Death Rate 4%.

18% Rising 2 year hinds enter the herd each year.

Weaner stags sold net on farm.

18 month and c.f.a.hinds sold at saleyards.

All Breeding stock over 15 months T.B. tested  
every two years (herd previously accredited).

#### Income:

Weaner stags 64 @ \$190 (net)	\$12,160
18 month hinds 35 @ \$500	\$17,500
C.f.a. hinds 21 @ \$250	\$ 5,250
1 c.f.a. stag @ \$400	\$ 400
20 kg velvet (5 stags) @ \$150 net	\$ 3,000

TOTAL INCOME

\$38,310

#### Expenditure:

Purchase Sire Stag 1 @ \$2,000	\$2,000
Animal Health -	
Drench - all weaners 127 @ 60c (inj.)	\$ 76
- weaner hinds 64 x3 @ 30c	\$ 58
- adult stock 190 x2 @ \$1.10 (inj.)	\$418
T.B. Testing 185 @ \$3 (/2)	\$278
Velveting Stags 5 @ \$18.00	\$ 90
Ear tags on weaner hinds 64 @ \$1.50	\$ 96
	\$1,016

Freight -			
57 Adult Stock @ \$10.50			\$ 599
Selling Charges -			
Yard fees 56 @ \$ 5.00	\$ 280		
Commission on \$22,750 @ 5.5%	\$1,251	\$1,531	
Levies -			
GIB Venison levy 100kg @ \$ 0.28	\$ 28		
Velvet levy 20 kg @ \$5	\$ 100		
M.A.F. 1 @ \$4.50	\$ 5	\$133	
<b>TOTAL DIRECT COSTS</b>			<b>\$5,279</b>
<b>TOTAL GROSS MARGIN (before feed costs and interest)</b>			<b>\$33,031</b>
<b>GROSS MARGIN per dollar invested in deer</b>			<b>\$0.29</b>
<b><u>GROSS MARGIN per Stock Unit</u></b>			<b><u>\$71.03</u></b>

**Gross Margin per Stock Unit at various  
weaner stag and 18 month hind prices.**

		18 MONTH HIND PRICES \$/HEAD		
		\$430	\$500	\$600
<b>WEANER</b>				
<b>STAG</b>	\$170	\$ 63.01	\$ 68.28	\$ 75.81
<b>PRICE</b>	\$190	\$ 65.77	\$ 71.03	\$ 78.66
<b>\$/HEAD (net)</b>	\$230	\$ 71.27	\$ 76.54	\$ 84.07

**Interest and Feed Costs:**

Interest on Capital Stock Value:		
\$112,750 @ 15% per annum		\$16,913
Winter Feed - Buy in additional hay and concentrates @ \$10/head		\$2,540
		\$19,453
<b>RETURN per Stock Unit (after interest and feed)</b>		<b>\$29.20</b>

### 3.2.9 Goats

#### GOAT GROSS MARGIN Cashgora Breeding Doe

##### Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Does	150	@ \$ 17	= \$2,550	0.75	113
Mated Hoggets	50	@ \$ 17	= \$ 850	0.75	38
Bucks	<u>3</u>	@ \$100	= \$ 300	0.70	<u>2</u>
	203		<u>\$3,700</u>		153

Dollar Investment in Goats per Stock Unit = \$24

##### Production Parameters:

Kidding - Does 130% survival to sale.  
- Hoggets 90%

Death Rate 5%

'Cashgora type' not yet stabilised, consequently fibre grade and yield per head is variable. Assume fibre sales average \$18/head/year, net of freight and handling etc.

##### Income:

Fibre - 203 head @ \$18/head (net)	\$3654
120 wether kids at \$7.50 (net)	\$ 900
70 doe kids at \$12 (net)	\$ 840
40 cull does at \$6 (net)	\$ 240
(Total 230 head sold at \$8.60 average price)	
<b>TOTAL INCOME</b>	<b>\$ 5,634</b>

##### Expenditure:

Shearing -	
Pre-kid - 200 head @ \$1.50	\$300
February - 203 head @ \$1.50	\$305
Animal Health - \$1.30 per doe (i.e. drench, dip, vaccination, minerals etc)	\$260
Buck Purchase - landed	\$220
<b>TOTAL DIRECT COSTS</b>	<b>\$ 1,085</b>
<b>TOTAL GROSS MARGIN (before feed costs and interest)</b>	<b>\$ 4,549</b>
<b>GROSS MARGIN per dollar invested in goats</b>	<b>\$ 1.23</b>

**Gross Margin per Stock Unit at various fibre and stock prices.**

		AVERAGE STOCK SALE PRICE/HEAD		
		\$5.00	\$8.60	\$35.00
<b>FIBRE</b>	<b>\$13</b>	\$17.67	\$23.08	\$62.77
<b>INCOME</b>	<b>\$18</b>	\$24.31	\$29.73	\$69.41
<b>/HEAD</b>	<b>\$28</b>	\$37.58	\$42.99	\$82.67

**Interest and feed costs:**

Interest on Capital Stock Value:			
\$3,700 @ 15% per annum		\$555	
Feed -			
Buy in additional feed at \$1.20 a head		\$ 244	\$799
RETURN per Stock Unit (after interest and feed)			\$24.51



### 3.2.10 Past and Present Livestock Gross Margins : A Comparison

Table of Historic Gross Margins,  
expressed as \$/stock unit

Season	Sheep (Breeding ewe)	Beef (Breeding cow)	Dairy (Factory)	Deer (Venison)	Goat (Fibre)
1989/90	\$27	\$35	\$108	\$49	\$30
1988/89	\$22	\$28	\$83	\$47	\$38
1987/88	\$24	\$32	\$62	\$82	\$47
1986/87	\$21	\$32*	\$57		
1985/86	\$17	\$31*	\$80		
1984/85	\$23				
1982/83	\$20	\$21			
1981/82	\$22	\$19			
1980/81	\$19	\$19			
1979/80	\$20	\$20			

Source: Lincoln University Financial Budget Manual

\* MAF South Canterbury

### 3.3 CROP GROSS MARGINS

The following gross margins relate to an intensive cropping farm on a heavy soil type, in Canterbury.

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 Management Department, Lincoln University.

#### 3.3.1 Wheat

#### WHEAT GROSS MARGIN Spring wheat (Otane)

**Income:**

5 tonnes/ha @ \$300/tonne (delivered)	-	\$1,500
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**Expenditure(per hectare):**

Cultivation -		
60 KW tractor - 3.5 hours @ \$15.80/hour	\$ 55	
(Fuel \$10.60/hr; R&M \$5.20/hr)		
Seed - 120 kg/ha @ \$450/tonne	\$ 54	
Fertilizer		
- Cropmaster 20, 125 kg/ha @ \$447/tonne	\$ 56	
- Urea 125 kg/ha @ \$472/tonne	\$ 59	\$115
Weed, Pest and Disease -		
Commando: 4 l/ha @ \$22.17/litre	\$ 89	
Glean : 20g/ha @ \$1.23/gm	\$ 25	
Tilt (twice): 0.5 l/ha @ \$68.44/litre	\$ 68	
Applications 4 at \$15	\$ 60	\$242
Irrigation - 50mm (2x) @ \$19.30		\$ 39
(Electricity \$12; R&M \$7.30)		
Harvest - 5 tonnes @ \$42/tonne		\$210
(in silo; contract)		
Freight - 5 tonnes @ \$18.40/tonne		\$ 92
(silo to port)		

TOTAL DIRECT COSTS		\$ 807
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<u>GROSS MARGIN per Hectare</u>		<u>\$ 693</u>
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Refer to table over page for sensitivity analysis

**Gross Margin per Hectare at various  
selling prices and yields.**

		YIELD Tonnes/ha		
		3.5t	5.0t	7.0t
<b>PRICE</b>	<b>\$270</b>	\$ 229	\$ 544	\$ 963
<b>PER</b>	<b>\$300</b>	\$ 334	\$ 693	\$1173
<b>TONNE</b>	<b>\$340</b>	\$ 474	\$ 894	\$1453

### 3.3.2 Barley

#### BARLEY GROSS MARGIN Spring Barley (Triumph; Malting)

**Income:**

5 Tonnes /ha @ \$250 /tonne \$1250

**Expenditure(per hectare):**

**Cultivation -**

60 KW tractor - 3.5 hours @ \$15.80/hr \$ 55  
(Fuel \$10.60/hr; R&M \$5.20/hr)

Seed - 120 kg/ha @ \$600/tonne \$ 72

**Fertiliser -**

Superphosphate 125 kg/ha @ \$250/t \$ 31  
Urea 125 kg/ha @ \$472/tonne \$ 59 \$ 90

**Weed, Pest and Disease -**

Commando; 4 l/ha @ \$22.17/litre \$ 89  
Glean; 20 g/ha @ \$1.23 /gm \$ 25  
Tilt; 0.5 l/ha @ \$68.44 /litre \$ 34  
Applications @ \$15 \$ 45 \$193

**Irrigation -**

2 x 50mm application @ \$19.30 \$ 39  
(Elec. \$12; R&M \$7.30)

Harvest - 5 tonnes @ \$42 /tonne (in silo;contract) \$210

Freight - 5 tonnes @ \$18.40/tonne (silo to port) \$ 92

**TOTAL DIRECT COSTS \$ 751**

**GROSS MARGIN per Hectare \$ 499**

**Gross Margin per hectare at  
various selling prices and yields.**

		YIELD Tonnes/ha		
		4.0t	5.0t	7.0t
<b>PRICE</b>	<b>\$220</b>	\$190	\$349	\$669
<b>PER</b>	<b>\$250</b>	\$310	\$499	\$879
<b>TONNE</b>	<b>\$290</b>	\$470	\$699	\$1159

### 3.3.3 White Clover

#### WHITE CLOVER GROSS MARGIN

(Huia)

**Income:**

350 kg(M.D.)/ha @ \$2.90 /kg \$1,015

**Expenditure(per hectare):**

Cultivation - nil		
Seed - 3 kg/ha @ \$4.89 /kg		\$ 15
Fertiliser - Super 125 kg/ha @ \$250/t		\$ 31
Weed, Pest and Disease -		
2,4,D Ester 4.5 l/ha @ \$8.38/litre	\$ 38	
Carbetamex 3.5 kg/ha @ \$27.20/kg	\$ 95	
Maverik* 150ml/ha @ \$161.25 /litre	\$ 24	
Applications, 2 @ \$15	\$ 30	\$187
Irrigation -		
3 x 50mm application @ \$19.30 (Elec. \$12; R&M \$7.30)		\$ 58
Harvest(contract) - 0.9 hrs/ha @ \$200		\$180
Freight - 500 kg (FD) @ \$18.40/tonne		\$ 9
Seed Dressing - 500 kg @ 33c /kg		\$165

TOTAL DIRECT COSTS \$ 645

GROSS MARGIN per Hectare \$ 370

**Gross margin per Hectare at various selling prices and yields.**

		YIELD kg (MD) /Hectare		
		200kg	350kg	700kg
PRICE	265c	\$-40	\$282	\$1036
	290c	\$-10	\$370	\$1211
	340c	\$110	\$545	\$1561

\* Note: Whilst Maverik is, as yet, unregistered for case bearer moth control in White Clover, it is in common use by farmers.

### 3.3.4 Ryegrass

#### RYEGRASS GROSS MARGIN

(Nui)

#### Income:

850 kg(MD)/ha @ \$0.90 /kg	\$765
Straw: 7 large bales/ha @ \$15	\$105

TOTAL INCOME \$870

#### Expenditure(per hectare):

Cultivation - 60 KW tractor - 3.5 hrs @ \$15.80/hr (Fuel \$10.60/hr; R&M \$5.20/hr)	\$ 55	
Seed - 22 kg/ha @ \$1.42 /kg	\$ 31	
Fertiliser - Superphosphate 125 kg/ha @ \$250/t	\$ 31	
Urea 185 kg/ha @ \$472/t	\$ 88	\$119
Weed, Pest and Disease -		
Commando: 5 l/ha @ \$22.17/litre	\$112	
MCPA: 3 l/ha @ \$5.48/litre	\$ 16	
Tilt: 0.5 l/ha @ \$68.44	\$ 34	
Application costs @ \$15/appl'n	\$ 45	\$207
Irrigation - 2 x 50mm application @ \$19.30 /appln (Elec. \$12; R&M \$7.30)		\$39
Harvest - Windrow(contract) @ \$57 /ha	\$ 57	
Header(contract) 0.63 hrs/ha @ \$200/hr	\$126	\$183
Freight - 1 Tonne(FD) @ \$18.40		\$ 18
Seed Dressing - 1000 kg @ 15c /kg		\$150

TOTAL DIRECT COSTS \$ 802

GROSS MARGIN per Hectare \$ 68

**Gross Margin per Hectare  
at various selling prices and yields.**

		YIELD kg/ha (MD)		
		600kg	850kg	1200kg
PRICE c/kg	70c	\$-227	\$-102	\$ 74
	90c	\$-107	\$ 68	\$ 314
	120c	\$ 73	\$ 323	\$ 674

### 3.3.5 Field Peas

#### FIELD PEAS GROSS MARGIN ('Blue')

**Income:**

3 Tonnes /ha @ \$300/tonne (contract) \$ 900

TOTAL INCOME \$ 900

**Expenditure(per hectare):**

Cultivation -

60 KW tractor - 3.5 hrs @ \$15.80/hr \$ 55  
 (Fuel \$10.60; R&M \$5.20/hr)

Seed - 290 kg/ha @ \$650/tonne \$189

Fertilizer -

Cropmaster 15, 125 kg/ha @ \$452/t \$ 55

Weed, Pest and Disease -

Bladex : 2.5 kg/ha @ \$14.89/litre \$37

MCPB : 2 l/ha @ \$7.93/litre \$16

Application (combined: contract) \$15 \$68

Irrigation -

2 x 50mm application @ \$19.30 per application  
 (Elec. \$12; R&M \$7.30) \$ 39

Harvest - 3 tonnes/ha @ \$55/tonne \$165  
 (in silo; contract)

Freight - 3 tonnes at \$18.40/tonne \$ 55

TOTAL DIRECT COSTS

\$ 626

GROSS MARGIN per Hectare

\$ 274

**Gross Margin per Hectare at various selling prices and yields.**

		YIELD Tonnes/ha		
		2t	3t	5t
PRICE	\$280	\$ 7	\$214	\$627
PER	\$300	\$ 47	\$274	\$727
TONNE	\$330	\$107	\$364	\$877

**3.3.6 Vining Peas**

**VINING PEA GROSS MARGIN**

**Income:**

5 tonnes /ha @ \$290 /tonne	\$1,450
Pea vine 60 bales @ \$2.50	\$ 150

TOTAL INCOME \$1,600

**Expenditure(per hectare):**

<b>Cultivation -</b>		
60 KW tractor - 3.5 hrs @ \$15.80 /hr		\$ 55
(Fuel \$10.60; R&M \$5.20/hr)		
Seed - 290 kg/ha @ \$1.19 per kg		\$345
Fertilizer - Ammophos 8.14.13.2, 125 kg/ha @ \$429t		\$ 54
("Watties" recommendation)		
<b>Weed, Pest and Disease -</b>		
Bladex : 2.5 kg/ha @ \$14.89/kg	\$37	
MCPB : 2 l/ha @ \$7.93/litre	\$16	
Application(combined; contract)	\$15	\$ 68
Irrigation - 3 x 50mm application @ \$19.30		\$ 58
(Elec. \$12; R&M \$7.60)		
Harvest - Purchaser of peas		\$ 0
Freight - " " "		\$ 0

TOTAL DIRECT COSTS \$ 580

GROSS MARGIN per Hectare \$1,020

**Gross Margin per Hectare at various changes  
in yield. (Assume pea quality is constant  
i.e. \$290 contract price per tonne)**

<b>YIELD Tonnes/Hectare</b>		
<b>3t</b>	<b>5t</b>	<b>7t</b>
\$ 440	\$1020	\$1600



### 3.3.7 Oilseed Rape

#### OILSEED RAPE GROSS MARGIN (Marnoo)

##### Income:

2 Tonnes /ha @ \$450 /tonne \$ 900

##### Expenditure(per hectare):

###### Cultivation -

60 KW tractor - 3.5 hrs @ \$15.80/hr \$ 55  
 (Fuel \$10.60; R&M \$5.20/hr)

Seed - 5 kg /ha @ \$2.20 /kg \$ 11

Fertiliser - Urea 125 kg/ha @ \$472/tonne \$ 59

###### Weed, Pest and disease -

Treflan 3 l/ha @ \$9.15/litre \$ 27

Application (contract) \$ 15

Phorate 5 kg/ha @ \$7.23/kg \$ 36

(with seed)

Pirimor 0.25 kg/ha @ \$46.22/kg \$ 12

Application (aerial) \$ 34 \$124

###### Irrigation -

3 x 50mm application @ \$19.30 \$ 58

###### Harvest -

Windrow (contract) @ \$57/ha \$ 57

Header (contract) 0.5hrs/ha @ \$200/hr \$100 \$157

Freight - 2 Tonnes @ \$18.40/tonne \$ 37

TOTAL DIRECT COSTS \$ 501

GROSS MARGIN per Hectare \$ 399

Gross Margin per Hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		1.0t	2.0t	3.5t
PRICE	\$410	\$ -71	\$ 319	\$ 908
PER	\$450	\$ -31	\$ 399	\$1048
TONNE	\$500	\$ 19	\$ 499	\$1223

### 3.3.8 Past and Present Cropping Gross Margins : A Comparison

Table of Historic Gross Margins  
expressed as \$/hectare

Season	Wheat	Barley (malting)	White Clover (Huia)	Ryegrass (Nui)	Field Peas	Vining Peas
1989/90	\$693 (S)	\$499	\$370	\$ 68	\$274	\$1020
1988/89	\$567	\$434	\$374	\$227	\$389	\$ 516
1987/88	\$252	\$251	\$178	\$358	\$307	\$ 541
1986/87	\$194	\$340*	\$325*	\$330*	\$307*	
1985/86	\$509	\$476*	\$191*	\$188*		\$ 449*
1984/85	\$841	\$640	\$256	\$132	\$311	\$ 578
1982/83	\$585	\$640	\$610	\$179	\$320	\$ 720
1981/82	\$640	\$667	\$510	\$646	\$341	\$ 580
1980/81	\$620	\$445	\$430	\$375+	\$225	\$ 570
1979/80	\$432	\$315	\$242	\$239+	\$ 85	\$ 456

Source: Lincoln University Financial Budget Manual

\* MAF South Canterbury

+ Ariki Ryegrass

Note: 1989/90 wheat gross margin is spring sown; all previous wheat gross margins for winter sown cultivars.

### **3.4 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.

#### **3.4.1 Export Apples**

(Based on effective planted area)

Income:

2800 TCE a hectare @ \$7.50 a TCE	\$21,000
(TCE = Tray Carton Equivalent)(67% packout)	

Expenditure (per hectare):

Fertiliser		\$ 280	
Chemicals		\$1850	
Casual wages	- pruning	\$ 120	
	- thinning	\$ 330	
	- picking	\$2670	
	- packing	\$ 560	\$3680
Packing cost			\$3380
Freight			\$ 460
NZAPMB levies and charges			\$1120

TOTAL DIRECT COSTS	\$10,770
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GROSS MARGIN PER HECTARE	\$10,230
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Gross Margin per Tray Carton Equivalent	\$3.65
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### **3.4.2 Export Kiwifruit**

(Based on effective planted area)

**Income:**

3600 Trays a hectare @ \$7.00 a Tray (net of cool storage and levies)	\$25,200
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**Expenditure (per hectare):**

Fertiliser	\$ 600
Pollination	\$ 650
Spraying and Chemicals	\$ 950
Wages (contract)	\$3600
Packing costs	\$7200

<b>TOTAL DIRECT COSTS</b>	<b>\$13,000</b>
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<b>GROSS MARGIN PER HECTARE</b>	<b>\$12,200</b>
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<b>Gross Margin per Tray</b>	<b>\$3.39</b>
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### 3.5 CITRUS FRUIT GROSS MARGINS

The following Gross Margins are based on estimates from a small number of orchards in the Bay of Plenty and Gisborne regions. The figures are for the 1988/89 season, in \$ per hectare.

Source: MAF (Technology) Consultants, Bay of Plenty.

	Navel Oranges	Seminole Tangelos	Satsuma Mandarins	Lemons	N.Z. Grapefruit
Returns (per hectare)	\$	\$	\$	\$	\$
	12741	16798	48670	22637	18317
<b>Variable Costs</b>					
(per hectare)					
Fertiliser	290	327	356	222	214
Mowing	90	111	30	100	81
Weed control	111	169	142	112	34
Pest & Disease Control	809	1128	850	703	817
Pruning	135	149	170	162	39
Picking	845	1389	3626	2711	2960
Packing	1242	1763	3005	3117	858
Freight	1224	1875	4242	3428	2861
Commission	797	810	4030	460	515
Levies	<u>144</u>	<u>98</u>	<u>24</u>	<u>39</u>	<u>60</u>
TOTAL VARIABLES	<u>5687</u>	<u>7819</u>	<u>16475</u>	<u>11054</u>	<u>8439</u>
GROSS MARGIN	<u>\$7054</u>	<u>\$8979</u>	<u>\$32195</u>	<u>\$11583</u>	<u>\$9878</u>

**SECTION 4**

**TAXATION**

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**IMPORTANT NOTE:**

At the time of writing (January 1990), 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 Estate Duty and Gift Duty is set out in Section 5.

The law relating to tax in New Zealand includes the Income Tax Act 1976, (which includes Fringe Benefit Tax) and the Goods and Services Tax Act 1985 as amended. It must be appreciated that for reasons of brevity, only selected aspects of the taxation law have been included in this section, and that caution must be exercised when applying those guidelines to a particular circumstance. If in doubt, your accountant, or financial adviser or the Inland Revenue Department should be consulted.

### **4.1.2 Changes since last year**

In recent years there have been rapid and dramatic tax changes. The former Minister of Finance (Mr Roger Douglas) summarised the objectives of the current tax reform process 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."

Major changes to the tax legislation continued in 1989. Some of the changes which affected most taxpayers were:

#### **Changes announced in previous years which came into effect:**

- New rates of tax for individuals, companies and trusts, and a new low-income earner rebate.
- Changes to the provisional tax system which required most provisional taxpayers to pay higher provisional tax payments.
- Deductions for employment-related expenses were abolished.
- The principles of company tax were changed, with the introduction of an imputation system. This gives shareholders a credit for tax paid by the company.
- Transitional provisions allowing companies to be restructured or dissolved were permitted.
- The fringe benefit tax system was amended to include employee-shareholders.



Changes announced during this year:

- The rate of company tax was increased to 33% with effect from the 1989/90 income year.
- The rate of fringe benefit tax was increased to 49% from 1 April 1989. But Fringe Benefit Tax is now deductible for income tax purposes.
- The rate of Goods and Services Tax was increased to 12.5% from 1 July 1989.
- P.A.Y.E. tax payments will be required to be made more frequently from 1 May 1990.
- The threshold below which land tax is not payable was reduced to \$10,000 and the rates of land tax were reduced. (Agricultural land is still exempt).
- A new resident withholding tax on interest and dividends paid from 1 October 1989 was introduced. (this is also called "Interest P.A.Y.E."). The tax exemption for interest and dividend income was reduced to \$100 and will be eliminated next year.
- Various adjustments to the herd scheme and trading stock scheme for livestock valuation were introduced. From the 1989/90 income year, more livestock classes may be included in the herd scheme; and the three year write down to trading stock value has been abolished. There are also changes to the high-priced livestock scheme.

Other possible changes are still being developed. Currently, methods of tax simplification are being considered and proposals for a capital gains tax are being reviewed.

## 4.2 THE INCOME TAX SYSTEM

### 4.2.1 Overview

The New Zealand income tax system operates under a voluntary compliance procedure in which each taxpayer is responsible for declaring his or her own income, calculating the tax due, and paying it. There are penalties for taxpayers who do not comply.

Refer to Section 4.15.2. for rate of income tax.

Income tax is collected throughout the year by either the PAYE and Provisional tax systems. After the income year has finished the taxpayer completes the appropriate annual Return of Income and files it with the Inland Revenue Department. The return is checked and an assessment is issued to the taxpayer.

Any taxpayer can object to his or her income tax assessment where the substance or accuracy is disputed. (There are strict requirements for objections in the Income Tax Act and any person contemplating such action 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 IR 12 or IR 13 tax code declaration.

The PAYE system applies to two types of payment:

**Salary or wages** - the amount of tax depends on the amount of payment and the employees tax code. Tax tables to calculate the amounts to be deducted are published by the Inland Revenue Department (IR 184X). Refer to Section 4.15.10.

For secondary employment and extra emoluments, such as back pay or bonuses, PAYE tax is deducted at a flat rate of 28%.

**Withholding payments**, which basically refers to payments under contract where there is not an employer-employee relationship. 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
Shearing work	15
Agricultural work	15
Cleaners	20
Honoraria	33

The amount on which withholding tax is calculated should not include any GST charged by the contractor. Failure to provide an IR 13 increases the rate of withholding tax to be deducted by 15 cents for every \$1.

From 1 May 1990, the employer must pay the total deductions of PAYE and withholding tax to the Inland Revenue Department by the 20th of the month (for tax deducted from payments made from the first to the fifteenth of the month); or the 5th of the following month (for tax deducted from payments made on or after the sixteenth of the month).

Until the end of April 1990, tax payments are required to be paid by the 20th of the following month. Concessions to allow employers to make less frequent payments where small payments are involved are being considered at present.

By 20 April 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. The top copies together with a completed Annual Reconciliation Form (IR68), must be sent to the Inland Revenue Department by 31 May each year.

Every employer must keep proper records for each employee showing gross wages, tax deductions, and tax credits (if any) which 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 10 years.

#### **4.2.3 Resident Withholding Tax**

Resident withholding tax (RWT, sometimes called 'interest PAYE') was introduced with effect from 1 October 1989. It is deducted by businesses paying interest or dividends. The rates are 24% for interest and 33% for dividends. Dividend imputation credits are taken into account in the calculation.

Institutions which deduct resident withholding tax from interest are required to prepare RWT certificates by 20th May each year. The certificates together with dividend notices showing RWT credits will be used to allow a credit for the tax withheld to be claimed in the annual tax returns.

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 assessable income 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 and 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.

#### **4.2.4 Provisional Tax System**

Provisional tax is levied on all income which does not have source deducted tax (such as PAYE or RWT) taken from it. It is intended that all income is taxed in the year in which it is earned.

Some examples of provisional taxpayers include:

- Individuals who derive business or professional income, e.g. farmers.
- Companies.
- Trusts.

Provisional tax is based on either an estimate of the current year's income or a figure calculated from the previous year's tax liability.

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 required to be paid in three instalments, on the seventh day of the fourth, eighth and twelfth months of the taxpayer's income year. (July, November and March for taxpayers whose balance date is 31 March).

The remaining tax due is called terminal tax, and is calculated in the annual tax return. It is due on the 7 February for most taxpayers including those whose balance date is 31 March). 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.

#### Provisional tax based on previous year's tax

This option is available if current income is expected to be less than \$1 million. Provisional tax calculations are based on 'residual income tax' for the previous year. This is effectively total tax minus PAYE deductions, withholding tax deductions and other source deductions and tax credits. In some cases this should be increased by an uplift of 10% or 20%.

Provisional tax payments using the previous year basis fall into three categories:

1. Individuals with income less than \$100,000.  
Provisional tax due is equal to last year's residual income tax plus 10%. If the previous year's tax return has not been completed when a provisional payment falls due, then the provisional tax is based on the tax for the preceding year plus 20%. (That is, if the 31 March 1990 tax return has been completed when the 7 July 1990 payment is due, the payment should be based on the 1990 residual income tax plus 10%. If the 1990 return has not been completed, then the 31 March 1989 residual income tax plus 20% is used).  
Individuals in this category do not have to pay the interest or under-estimation penalties which are explained later.
2. Individuals with income over \$100,000 and less than \$1 million.  
Provisional tax is the same amount as the previous year's residual income tax. (No uplift is required). But if tax payments are based on an earlier year (e.g. 1990-91 provisional tax based on the 1988-89 tax return), then provisional tax equals the earlier year's residual income tax plus a 10% uplift.  
Individuals with income over \$100,000 are subject to interest on underpaid or overpaid tax. This is a charge (or credit) of 10% p.a., on a daily basis, on the difference between provisional tax and the total income tax subsequently calculated on the tax return. That is, on the terminal tax, or refund due.

3. Companies and other Taxpaying Entities

For companies and other entities with income less than \$1 million, provisional tax payable is equal to the previous year's residual income tax plus 10%, or the tax from the year preceding the previous year plus 20%. Companies are also required to adjust the tax payable to the new tax rates. That is, where 1988/89 residual income tax is used in a calculation it should be adjusted by 33/28 to reflect the increase in the tax rate from 28% to 33%.

Taxpayers in this category are also subject to interest (at 10%p.a. on a daily basis) on the difference between provisional tax and actual tax.

Provisional tax based on estimated income

All taxpayers with annual incomes of more than \$1 million are required to pay provisional tax on their estimated current income. Other taxpayers have the option of paying tax on an estimate if they wish. If an estimate is used, and the provisional tax paid is less than 80% of the actual residual income tax required for the year, then a penalty applies. The penalty is a flat 10% of the difference between estimated and actual tax.

In addition, taxpayers who use estimated income to calculate provisional tax are subject to interest on the difference between provisional and actual tax at 10%p.a. on a daily basis.

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 1990 tax return is:

	\$
Tax on total income (refer to Section 4.15.2)	15,000
less rebates	<u>50</u>
Tax payable	14,950
Less PAYE deductions	<u>1000</u>
RESIDUAL INCOME TAX	13,950
less 1989-90 provisional tax already paid	<u>10,000</u>
TERMINAL TAX	<u>3950</u>

His 1988-89 terminal tax payment will be due on 7 February 1991. Because his income is less than \$100,000 he is not subject to interest on the terminal tax due.

His first provisional tax payment for 1990-91 will be due on 7 July 1990.

It is calculated as follows:	\$
RESIDUAL INCOME TAX	<u>13,950</u>
1989-90 provisional tax (\$13,950 plus 10%)	<u>15,345</u>

Amounts due:	\$
7 July 1990 (one third)	5115
7 November 1990 (one third)	5115
7 March 1991 (one third)	5115

The above details assume Mr Smith paid his 1989-90 provisional tax on the basis of the previous year's tax. If his 1989-90 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 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 10% p.a. (on a daily basis) from 7 March 1989 to 7 February 1990 would be due on his terminal tax payment (\$365 in this example).

#### **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. For the 1989-90 income year, a 'pay-period taxpayer' is defined as an employee who receives salary and wages less than \$20,000 and other income less than \$6,006. However, the following taxpayers are excluded from treatment as pay-period taxpayers: shearers, shearing shed hands, absentees, taxpayers eligible for the family support tax credit, national superannuitants, and others who would normally earn more than \$20,000 but earned less than that because of some disruption e.g. retirement, death, disability etc.

The following return forms should be used:

- IR 3 - Individual return for self-employed and persons with (net) investment income over \$3,000.
- IR 3B - Supplementary return of business income.
- IR 3F - Supplementary return of farming income.
- IR 4 - Company and club returns.
- IR 5 - Individual return for persons who receive income from salary, wages or superannuation, with net investment income (i.e. interest and dividends after exemptions, and net rents) not exceeding \$3,000
- IR 6 - Estate or Trust return.
- IR 7 - 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 (Refer to Section 4.15.2 for tax rates)

The return of income requires the taxpayer to calculate his or her actual tax liability and then deduct the tax already paid, as PAYE and/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. N.B. A provisional taxpayer may use this credit against amounts due to the IRD.
2. More tax to pay (terminal tax), which is due in the following year.
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 an 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 tax payer has the right to object to a tax assessment notice. The objection must be in writing and within one month. 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.

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. Depending upon the outcome of the objection, interest may be payable upon the deferred tax by the Commissioner or by the taxpayer.

#### 4.2.7 Penalties

##### 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. 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. Other types of tax evasion are not punished by jail.



### 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 IR 5 or IR 3 returns (depending on their sources of income - see Section 4.2.5 Returns of Income), and to pay tax at the rates specified by the Income Tax Act. These rates vary according to the level of income on the basis that the higher the income, the higher the marginal rate of tax. The rates of tax from 1 April 1989 are: 24% of the first \$30,875 earned, and 33% of income in excess of \$30,875 (refer to Section 4.15.2).

Taxable income is calculated in the following way:

	Income from all sources	
less	Exempt Income	
less	Allowable deductions	
	<hr/>	
=	<b>TAXABLE INCOME or ASSESSABLE INCOME</b>	
	<hr/> <hr/>	

Tax is calculated as:

	Tax (on Taxable Income)	
less	Rebates and Adjustments	
	<hr/>	
=	Tax Liability for year	
less	Tax paid during year (PAYE/or Provisional Tax)	
less	Other tax credits	
	<hr/>	
=	<b>REFUND OR TERMINAL TAX TO PAY</b>	
	<hr/> <hr/>	

### 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, or other monetary benefits.

N.B. "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 (see below).
- Earnings related Accident Compensation receipts.
- 'Basic Grant' paid to students.

3. National Superannuation.

National superannuitants are subject to an additional tax surcharge at the rate of 20% from 1 April 1989 of income other than national superannuation and/or foreign social security pensions, in excess of a stated threshold. The amount of this threshold is \$12,012 per married couple or \$7,202 for a single superannuitant.

From 1 April 1990, only one half of any private pension or superannuation (under certain conditions) is included in this calculation. The tax surcharge is limited to a maximum of the net amount of national superannuation received by the taxpayer in that year.

- 4. 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.
- 5. Revenues from land e.g. net rents received; profits from extraction, removal or sale of minerals, timber etc.
- 6. Gains from the sale of land in some circumstances.

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 it 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 4,500m<sup>2</sup> and was occupied as the taxpayer's residence; and it does not apply where the taxpayer used the land primarily for farming or agriculture and the subdivided land is capable of being worked as an economic unit as a farming or agricultural business.
  - 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 4,500m<sup>2</sup> and was occupied as the taxpayer's residence; or where the taxpayer used the land primarily for farming or agriculture and it is capable of being worked as economic units for farming or agricultural business.
  - or F. In addition, where land is sold within ten years of acquisition, interest expense previously claimed as a deduction for tax may be 'clawed back' (added into the current year's income) up to a maximum of the gain on sale of the property. However this provision does not apply to land used by the taxpayer for a farming, agricultural, horticultural, viticultural or aquacultural business.
7. Royalties and "know how" payments.
  8. Interests, dividends, annuities and pensions.
  9. All income-tested benefits paid by the Department of Social Welfare .
  10. 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, may be regarded as exempt income:

1. Up to \$100 interest and dividends in the year ended 31 March 1990.
2. Any educational scholarship or bursary (but not 'basic grant' which is paid by N.Z. Government).
3. Prize money from horse or dog racing, or trotting.
4. Prizes from Bonus Bonds, Golden Kiwi and Lotto.
5. Gifts, Legacies, capital gains and monies derived by chance, are not regarded as income.

#### 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 expenses incurred in the determination of an employee's liability for tax may still 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 deducted from the actual tax assessed. The total rebates claimed cannot exceed the assessed amount of tax payable.

Below are the principal rebates available to individuals for the 1989/90 income year:

##### 1. Personal Tax Rebate for Child Taxpayer

Maximum \$156 per year.

Applies to a child taxpayer who during the income year was under 15 years old or attended a primary, secondary, or special school, and for whom a family benefit was payable in that tax year.

This rebate allows a child to effectively earn \$1,040 income from employment before becoming liable to income tax.

##### 2. Transitional Tax Allowance

<u>Assessable Income</u>	<u>Rebate</u>
Up to \$ 6,240	\$728
\$6,241 - \$9,880	\$728 less 20% of excess over \$6,240
Over \$9,880	Nil

This rebate is not claimable 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.

##### 3. Low Income Rebate

A rebate of 9 cents for each dollar of assessable income, with a maximum of \$855.00 (when income is \$9,500). If income is greater than \$9,500 the rebate reduces by 4 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 applies to wages, salaries and income as a self-employed person or partner in a business. 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 the care of a dependent child (at or away from home) provided the services are deemed necessary; or when a housekeeper is required because of the taxpayer's disability.

#### 5. Donations

The lesser of \$200 or 33% of payments made.

Donations must be for a minimum of \$5 and made to approved charities. School fees paid after 31 March 1988 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 is also a small number of other rebates which apply in special circumstances. These include rebates for First World War pensioners; mortgage interest rebate for first homes bought before 9 November 1984 (applies to the first five years of ownership); and special home, farm and fishing vessel ownership savings accounts (no new accounts may be opened).

#### 4.4.6 Tax Credits

Tax credits are paid to the taxpayer, either through the taxation system or directly from the Social Welfare Department. Unlike rebates, tax credits are paid out regardless of the tax on the taxpayer's total assessable income.

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; profits made by a family company must be included; and livestock values must be re-calculated using "herd scheme" values.

#### 1. Family Support Tax Credit

Those who receive the Family benefit for a child will be eligible for the Family Support Tax Credit, subject to income limits.

Rates for the year ended 31 March 1990 are:

<u>Family income</u>	<u>Tax credit</u>
Under \$17,500	\$1,872 for one child plus \$832 for each additional child.
Between \$17,500 and \$27,000	As above, less 18% of the income above \$17,500.
Over \$27,000	As above, less \$1,710 plus 30% of the excess income over \$27,000.

Family support is shared in two parent families.

## 2. Guaranteed Minimum Family Income Tax credit.

This tax credit is in addition to the Family Support Tax Credit for full time employees with dependent children. The tax credit increases after tax income inclusive of family support to \$15,808 for one child plus \$832 for each additional child.

The credit is shared in two parent families.

**Note:** Both the Guaranteed Minimum Family Income tax credit and the Family Support tax credit are paid by either:-

- (a) the employer reducing PAYE deductions; or
- (b) offsetting against provisional tax payments; or
- (c) the Department of Social Welfare; or
- (d) deducted from terminal tax payable or added to the refund receivable.

### 4.4.7 Example

A married man with two children aged 4 and 6 derived the following income during the year ended 31 March 1990.

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>
		\$21,400
less interest and dividends exemption		<u>\$100</u>
TOTAL ASSESSABLE INCOME		<u>\$21,300</u>
INCOME TAX on \$21,300 (Refer Section 4.15.2) =		\$ 5,112.00





## 4.5 CALCULATING TAXABLE INCOME - COMPANIES

A company pays tax in its own right (i.e. it is separate and distinct from its shareholders), and the basic rate of tax on income derived by New Zealand resident companies is 33% (refer to Section 4.15.2). The basic rate for non-resident companies is 38%. Under the imputation system, tax payable by a company is available as a tax credit to the shareholders. Taxable income generally means business profits (in the normal accounting sense), less any taxation incentives applicable to that company.

Companies are provisional taxpayers. For further details refer to section 4.2.4 - The Provisional Tax System, and Section 4.15.1, Dates for payment of provisional and terminal tax.

### 4.5.1 Imputation System

Dividends paid from 1 April 1988 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. But the imputation credit cannot be more than the ratio of tax payable for the year, and it cannot be more than the amount of tax paid.

In the example:

$$\begin{aligned}\text{Maximum ratio} &= \frac{\text{tax rate}}{\text{income} - \text{tax rate}} \\ &= \frac{33\%}{100\% - 33\%} \\ &= 49.2\% \text{ of the dividend}\end{aligned}$$

Maximum possible tax credit (total tax paid as above): \$33.00

The maximum ratio multiplied by the dividend:

$$\$33.50 \times 49.2\% = \$16.50$$

The maximum tax 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").

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>
Additional tax to pay as a result of receiving a \$36 dividend	<u>\$0.00</u>

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
- Balance brought forward from previous years ( but only from 1988-89 and later)

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 no longer subject to double taxation. Company tax can be passed on as a credit to shareholders. As a result, if a company has enough imputation credits, and decides to distribute them, then dividends received should not result in extra tax to pay.

**Resident Withholding Tax**

Resident withholding tax (refer section 4.2.3) must also be deducted from dividends at a rate of 33%, but any imputation credit is offset against the amount to be deducted.

**4.5.2 Bonus Issues**

Bonus issues can either be taxable (in which case imputation credits can be allocated) or non-taxable. Bonus shares issued in lieu in dividend are taxable. Otherwise the directors have a choice.

#### **4.5.3 Losses**

Losses can be carried forward and deducted from the first available assessable income, provided 40% of the shareholding in the loss company remains constant through the period of loss to eventual offset.

#### **4.5.4 Salaries**

Special considerations apply where relatives (that is, associated persons) 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.

## **4.6 CALCULATING TAXABLE INCOME - PARTNERSHIPS**

### **4.6.1 Overview**

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 partners must file a separate partnership return of income (IR 7) covering their joint income (or loss) and detailing its distribution among the partners. The partnership accounts should also be furnished.

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 should be allocated to the partners and cannot be carried forward by the partnership itself.

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 remuneration; and
- No part of the income payable to a "relative" would be regarded as a gift and thereby subject to Gift Duty. In determining whether a gift exists, consideration would be given to the following factors, amongst others:
  - The nature and amount of the capital contributions or the value of the services performed.
  - The proportions of such contributions to the remuneration or share of profit between partners.
  - Whether the arrangement would be acceptable under normal commercial standards; etc.

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.

It should be noted that it is no longer necessary for a husband and wife to have a written partnership agreement if they are in business together, but it is still necessary to have an agreement if the parties are not sharing everything on an equal basis.

## 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 reducing estate duty or gift duty, 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 differing rates for "specified trusts" and "other trusts" have now been abolished).

#### **Foreign Trusts.**

Generally trusts settled by a non resident.

#### **Non-Qualifying Trusts**

Generally trusts 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 below), the taxation liability is determined by providing for the special exemptions and rebates which the beneficiary himself or herself is eligible for. If the beneficiary derives additional income a personal return of income should be filed incorporating his trust income and the tax already paid by the trustee on his 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 trustee during an income year is classified as Beneficiaries Income for the same year under any of the following conditions:

- 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 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 now 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 - i.e.  
SALES  
less PURCHASES AND OTHER BUSINESS EXPENSES  
plus or minus CHANGES IN VALUE OF STOCK ON HAND at the end of  
the year (increases are added, decreases are subtracted). (For valuation of stock, see  
section 4.8.3.)
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.
10. Income from the sale of timber, including standing timber and trees planted for  
agricultural purposes, is assessable but may be spread over the year of sale and up  
to 3 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 domestic expenses, electricity and car depreciation  
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. Detailed records should be kept using a log book. 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).
  - 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.  
Development Expenditure - see Section 4.8.5.
9. Repairs and Maintenance costs on sheep yards, sheep dips, fencing and any other income producing assets.
10. Cost of papers and magazines containing farming information.
11. 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:

- 1 permanent employee - \$18 per week.
- 2 permanent employees - \$27 per week
- 3 permanent employees - \$33 per week
- and thereafter an additional \$4.50 per employee per week.

These amounts are treated as income to the farmers 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.

This payment is in addition to any special arrangements made in respect of seasonal or part-time employees, e.g. shearers.

- Payments for work performed on, or on behalf of, the farm may be deductible if the Commissioner of Inland Revenue has given his 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.

12. Cost of transporting employees' children to school. The cost of transporting the farmer's own children is regarded as private and therefore not deductible.
13. Accident Compensation Levy (refer to Section 4.15.8).
14. Income spreading schemes. In some cases expenses (such as fertiliser application) can be deferred to later years.
15. 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 \$20,000 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 4.15.7, Accrual Rules for Expenditure.

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

##### 1. 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 4. below)

##### 2. 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 \$50,000, 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 4.15.7, Accrual rules for expenditure.

##### 3. Growing Crops, Fruit and Vegetables

Crops, fruit and vegetables, standing timber 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.

##### 4. Valuation of Livestock (Refer also to Sections 4.15.4, 4.15.5 and 4.15.6.)

Broadly speaking, farmers who farm sheep, cattle, deer, pigs or goats ("specified livestock") are required to choose an option for valuing their livestock (for taxation purposes) using one of the trading stock scheme, the herd scheme, or the cost price scheme (the first two schemes are based on average market values while the third represents the lower of actual accumulated costs or market value). In addition there is a separate scheme for high priced purchased livestock.

For livestock other than bloodstock and specified livestock 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).

Valuation of Sheep, Cattle, Deer, Goats and Pigs  
(Refer also to Sections 4.15.4, 4.15.5 and 4.15.6.)

(i) Trading Stock Scheme

Livestock are valued at 70% of a three year rolling average based on the (national) average market value of the appropriate livestock as declared for that income year and the two previous income years. All livestock under 12 weeks of age at balance date, except pigs, are valued at 50% of this average value. Increases or decreases in the national standard value are taxable or deductible.

(ii) Herd Scheme

- The Income Tax Act lists which categories may be treated as herd livestock. This is indicated in Section 4.15.4. Where a taxpayer uses the herd scheme, any stock which are not in herd livestock classes are valued using the trading stock scheme.
- Herd livestock are to be valued at the beginning and end of the income year at the "herd value", which is 100% of the national average market value of the appropriate livestock as declared for that income year.
- Once in the herd, fluctuations in the market value of the herd livestock do not affect the amount of taxable income.
- Items which affect taxable income are:
  - Changes in numbers of the herd
  - Changes in the composition of the herd
  - Transactions affecting livestock not in the herd.

From 1989-90, immature livestock is also to be valued using the herd scheme. There are transitional provisions allowing farmers to elect to value their immature herd scheme livestock under the trading stock scheme.

(iii) Cost Price Scheme

Farmers may elect to value livestock at cost price, market value or replacement price. The taxpayer must keep detailed stock records. The cost option is not available for bailed livestock.

(iv) High Priced Livestock

High priced livestock are in a separate class for valuation purposes. "High priced" means that the purchase price is at least 3 times the previous year's average market value for cattle, deer, and pigs, and 4 times the previous years average market value for sheep and goats. From 1989-90, only animals which cost more than \$100 are to be treated as high priced livestock.

High priced livestock are subject to an annual write-down (i.e. depreciation) provided the animal is over 2 years of age (1 year for pigs) at balance date. Stock is valued at cost price until then.

The amount of the write down is as follows:

Sheep	25% p.a.	(i.e. 4 years)
Cattle	20% p.a.	(i.e. 5 years)
Deer -		
stags	20% p.a.	(i.e. 5 years)
other	15% p.a.	(i.e. 7 years)
Goats	20% p.a.	(i.e. 5 years)
Pigs	33.3% p.a.	(i.e. 3 years)

General Provisions

General provisions relating to the valuation of livestock for tax purposes are as follows:

- In all cases, expenditure on the purchase of livestock is tax deductible, and proceeds of livestock sold are taxable, but stock on hand must also be brought into account.
- Market values of sheep, cattle, deer, goats and pigs are published annually by the Tax Department. The average values are established in consultation with M.A.F. and are based on schedule prices or saleyards prices (or a combination) depending on the category of livestock.  
(See Section 4.15.4 for the 1987, 1988 and 1989 livestock values)
- Standard values for other livestock are as agreed with the Tax Department.

Refer also to Section 4.15.5, Livestock Taxation Examples; and to Section 4.15.6, Livestock Taxation Changes in 1987.

Progressive write down of livestock

Some circumstances require the value of specified livestock (sheep, cattle, deer, pigs and goats) to be written down to the appropriate tax value in equal instalments over a three year period.

This applies only to taxpayers using the trading stock scheme.

**This requirement is proposed to be abolished with effect from the 1989-90 year.**

It applies to a taxpayer who:

- \* purchases additional livestock (i.e. not replacements) during an income year or any of the three following years because the taxpayer:
  - commences or recommences livestock farming

- brings land into production
- acquires additional land
- \* purchases livestock of a different type, e.g. sheep farmer diversifying into deer.
- \* opts to change the method of valuation of livestock to the trading stock scheme.

As a general rule, the herd scheme is best for long-term farming businesses and where stock values are expected to increase; the trading stock scheme is best where stock values are expected to remain static or to decline; the cost price scheme is best where the particular stock are worth less than the national average or where a herd is being built up by retaining progeny.

A survey in 1988 showed that more than 60% of sheep and cattle farmers had chosen the herd scheme, while nearly 70% of deer farmers were on the trading stock scheme.

#### Choice of Scheme

Existing farmers are permitted to change from one method of livestock valuation to another. Written notice of the change must be made one year and one day before the start of the income year when the change is to occur. This effectively means two years ahead. New farmers must elect their method of valuation by the time their first tax return as a farming business is due. Note that different schemes may be adopted for different livestock types - e.g. sheep may be in the herd scheme while deer are in the trading stock scheme.

#### **Taxation of Bloodstock**

All bloodstock is to be valued at cost price. Stud stallions may be written down to \$1 over a period of 5 years, while broodmares may be written down to \$1 over a period of between 3 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 year in which the horse was first used for breeding purposes. There are transitional provisions for horses raced before the 1987-88 accounting year.

Adjustments to cost occur where breeding bloodstock is raced rather than used for breeding purposes. Expenditures add to cost, income received reduces the cost. Expenditures and losses incurred in racing bloodstock, or preparing bloodstock for racing are not tax deductible.

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 4.15.9)

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 asset price excluding GST if the taxpayer is registered for GST purposes. For a non-registered taxpayer, depreciation is calculated on the GST inclusive cost.

Depreciation is usually calculated as a percentage of either the cost price of the asset (CP method) or the diminishing book value (DV method). The Inland Revenue Department specifies both the rate and the method of depreciation. These schedule rates are the maximum allowable for income tax purposes, although a lesser rate may be claimed if desired. The Department also has discretion to allow special rates of depreciation in some circumstances.

Some of the most common rates are:

Buildings	- Reinforced Concrete	1% CP
	- Brick, Stone, Concrete	2% CP
	- Wooden	2.5% CP
Motor Vehicles		20% DV
Plant		10% DV
Office Equipment		20% DV

Note: Further items can be found in Section 4.15.9.

The Department plans to conduct a complete review of tax depreciation rates in 1990.

#### **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 6 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-**

##### **AT A LOSS**

i.e. Net sales proceeds (after deducting the costs of sale) are less than book value. A loss on sale is deductible in the year of sale, except that losses on sale of buildings are not tax deductible.

## AT A PROFIT

i.e. Net sales proceeds (after deducting costs of sale) are greater than book value. Any depreciation recovered is assessable in the year of sale. Any excess of the disposal proceeds above the cost price represents a capital gain which is not taxable.

### 4.8.5 Expenditure on Land Improvements (Development Expenditure)

A proportion of certain expenditure which would normally be regarded as capital expenditure and therefore not deductible, may be treated as a tax-deductible expense. The deduction may be claimed in the year of expenditure or, at the taxpayer's written election, the claim may be spread over the year of expenditure and any or all of the next nine income years. The deduction spread does not have to be of equal amounts.

The deductions available for development expenditure are being phased out according to the following timetable:

Income year	% of development expenditure which is deductible in the first year
1988	90%
1989	75%
1990	55%
1991	30%
1992	0

The amount of development expenditure which is not eligible to be immediately deducted must be capitalised as an asset and can be depreciated at the rates set out below.

The types of expenditure which qualify are:

- The eradication or extermination of animal or vegetable pests (percentage deduction allowed each year: 5%)
- The felling, clearing, destruction, and removal of timber, stumps, scrub, or undergrowth (5%).
- The destruction of weeds or plants detrimental to the land (5%).
- The preparation of the land for farming including its cultivation or grassing (5%).
- The draining of swamp or low-lying lands (5%).
- The construction of access roads or tracks (5%).
- The construction of dams, stopbanks, irrigation or stream diversion channels, or other improvements for the purpose of conveying water or preventing soil erosion (5%).
- The repair of flood or erosion damage (5%).
- The sinking of bores or wells to provide water for the land (5%).
- The construction of aeroplane landing strips to facilitate aerial topdressing (5%).
- The construction of fences, including the purchase of wire netting to make fences rabbit proof (10%).
- The erection of electric power or telephone lines (10%).
- The construction of feeding platforms, feeding yards, plunge sheep dips, or self-feeding ensilage pits (10%)
- The construction of supporting frames for growing crops (10%).



- The construction of earthworks, ponds, settling tanks, or other similar improvements primarily for treating waste products or combating pollution of the environment (5%).

For two categories of development expenditure, the additional amount deductible in the first year does not apply. Expenditure on these items should be capitalised and depreciated using the rates shown:

- the planting of vines or trees (except those planted for timber production 10%).
- the construction of structures for shelter purposes (10%).

### Tree Planting

A deduction is allowed for expenditure incurred in planting or maintaining trees which have been planted to provide shelter or to prevent erosion or otherwise for agricultural or pastoral purposes, or in erecting or maintaining fences to protect any such trees. This deduction is not extended to trees planted under a Forestry Encouragement Grant, or for the planting of fruit producing trees.

The deduction available for tree planting expenditure is being phased out according to the following timetable:

Income year	% of expenditure which is deductible
1988	90%
1989	75%
1990	55%
1991	30%
1992	actual expenditure (maximum \$7500)

However in the 1988-91 income years, up to \$7500 may be deducted in the year that it is incurred (even if this exceeds the percentage allowable).

The amount of expenditure which is not eligible for immediate deduction may be treated as expenditure on land improvements, that is, capitalised and depreciated (at 10%).

### 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 1990, a farmer incurs the following expenditure:

New Fencing	\$3000
Shelter Structures	\$5000
Repairs to Access Road	\$1000

The amounts deductible are:

New Fencing:

'First year' deduction 55% of \$3000	\$1650
'Depreciation' deduction 10% of diminished value (\$3000 minus \$1650)	\$135
<b>TOTAL DEDUCTION ALLOWED</b>	<b>\$1785</b>
Diminished value for next year's calculation	<u>\$1215</u>

## Shelter Structures

'First year' deduction	Nil
(This is a category as shown above for which this deduction does not apply).	
'Depreciation' deduction 10% of \$5000	<u>\$500</u>
TOTAL DEDUCTIONS ALLOWED	<u>\$500</u>
Diminished value for next year's calculation	<u>\$4500</u>

## Repairs to Access Road

Deduction	\$1000
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(Repairs to existing assets are deductible in the year they incurred.)

### **4.8.6 Limitation of Tax Losses from Farming or Landowning**

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), can only be offset against other income up to a maximum of \$10,000 per annum. Losses above this limit must be carried forward and deducted from other income in subsequent year(s) subject to the \$10,000 limit in each year.

### **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 3 preceding years.

### **Forest Development Expenditure**

A forestry business which held or owned land as at 12 December 1986 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 phasing out of development expenditures as for a farmer (see Section 4.8.5).

The amount which qualifies as development expenditure may be allocated to any of the income years up to and including the 1999/2000 income year.

The amount of development expenditure which is not claimed as a tax deduction is to be capitalised and depreciated at the rates set out in Section 4.15.3.

### **Forestry Planting and Maintenance**

A forestry business which held or owned land as at 12 December 1986 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 will be phased out on the same basis as for development (see above) so that after the 1991 income year, no such expenditures will be deductible. Instead, such expenditures are to be capitalised to a "cost of timber" account which can only be deducted when income from those trees are realised.

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 improvement (not trees).
- Depreciation on plant and machinery used to develop land or to plant or maintain trees.
- Fertiliser

Other maintenance costs (excluding land contouring and other expenditure on land improvement but including depreciation of land clearance costs) are to be capitalised to a "cost of timber" account. These costs are to be carried forward and offset against income realised from the sale of that timber.

#### **4.3.3 Farm Income Equalisation Scheme**

This scheme allows a farmer to smooth his income from year to year by permitting him to reduce his assessable income by the amounts which he deposits with the Inland Revenue Department. These deposits are retained in the Farm 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 with the shorter of:

- 6 months after balance date; or
- 1 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 his 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 6 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 6 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.

#### 4.9 CALCULATING TAXABLE INCOME - HORTICULTURE

The following provisions relate specifically to horticulture, but readers should also familiarise themselves with the farming provisions (Section 4.8).

**Purchase of land**, including conveyancing fees, is capital expenditure and is not deductible. However, legal fees incurred in arranging finance to purchase the land, or in arranging to lease the land, will be tax deductible.

**Buildings** are capital expenditure and are subject to depreciation allowances as for a farm (refer section 4.8.4).

**Expenditure on land improvements** and development is subject to the same rules as for farming (refer Section 4.8.5). That is, part of the expenditure can be deducted in the first year and the remainder can be depreciated.

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.

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 Farm Income Equalisation Scheme (refer Section 4.8.8).

## 4.10 CALCULATING TAXABLE INCOME - FISHING INDUSTRY

The following provisions relate specifically to the fishing industry but readers should also familiarise themselves with Section 4.8 which includes information about farming generally.

In general 'fish' includes shellfish and crustaceans.

### 4.10.1 Spreading of Repair Costs on Fishing Boats

Expenditure incurred in making repairs or alterations necessary to obtain a certificate of survey under the 'Shipping and Seamen Act 1952' may be deferred in whole or in part and claimed at the written election of the taxpayer in the year of expenditure and up to four succeeding years. The expenditure covers repairs and alterations to the hull, equipment or machinery, and must be ordinarily deductible as 'repairs and maintenance' (i.e. would not be regarded as capital expenditure).

### 4.10.2 Development Expenditure - Fish Farming

Certain expenditure incurred during an income year which normally would be regarded as capital expenditure and therefore not deductible, may be treated as a tax-deductible expense. The deduction may be claimed in the year of expenditure or, at the taxpayer's written election, the claim may be spread over the year of expenditure and any or all of the next nine income years. The deduction spread does not have to be of equal amounts.

The deductions available for development expenditure are being phased out according to the following timetable:

Income year	% of development expenditure which is deductible in the first year
1988	90%
1989	75%
1990	55%
1991	30%
1992	0

The amount of development expenditure which is not eligible to be immediately deducted must be capitalised as an asset and can be depreciated at the rates set out in Section 4.15.3, Expenditure on land Improvements, Parts III to VII

The types of expenditure which qualify are:

#### Rock Oyster Farming

- Acquisition and preparation of spatting sticks;
- Construction and erection of posts, rails, or other structures for the holding of spatting stocks during spat catching and maturing;
- Construction of fences (including breakwater fences).

#### Mussel Farming

- Acquisition, preparation and mooring of pontoons, rafts, or other floating structures for collecting spat;

- Acquisition, mooring and outfitting of moored floating platforms from which the collected spat is suspended for subsequent growth;
- Collecting and depositing of shell or other suitable material on the sea bed to create spatting surfaces;
- Acquiring, outfitting and mooring of the special long lines on which mussels are cultivated.

#### Scallop Farming

- Acquisition, preparation and mooring of floating structures for collecting spat.
- Acquisition, mooring and outfitting of long lines from which the collected spat is suspended for subsequent growth.

#### Sea-Cage Salmon Farming

- Acquisition, preparation and mooring of pontoons, rafts, or other floating structures for securing or protecting cages or other containment vessels;
- Acquisition, preparation, and placing of equipment or structures, including tanks, cages, nets or other vessels, for the containment of live salmon;
- The acquisition and placing of ropes and buoys used in the breeding or maturing of salmon.

#### Freshwater Fish Farming

- Ground testing;
- Drilling of water bores;
- The draining of land and the excavating of sites for ponds, tanks or races;
- The construction of races, sluices, ponds, settling ponds, and tanks of impervious materials to conduct or contain water.
- The supply and installation of pipes for water reticulation;
- The construction of walls, embankments, walkways, service paths, and access paths;
- The supply and installation of baffles or screens for the containing or excluding of fish;
- The construction of fencing on the fish farm;
- The construction of effluent ponds and channels.

#### **4.10.3 Income Equalisation Scheme**

Taxpayers engaged in the business of fishing are able to make deposits under the farm income equalisation scheme, and for this purpose "fishing" includes rock oyster farming, mussel farming, and freshwater fish farming.

(Also see Section 4.8.8)



## **4.11 EXPORT INCENTIVES**

Export incentives have generally been phased out with the exception of the following.

### **4.11.1 Export-Market Development and Tourist Promotion Incentive**

Any taxpayer who incurs qualifying expenditure is entitled to a refundable tax credit equal to a specified percentage of such qualifying expenditure. This incentive is being phased out in 1990.

To qualify for the incentive, the export/tourist promotion expenditure must:

- Be tax-deductible under general taxation law (i.e. capital expenditure would not qualify); and
- Have been incurred primarily and principally for the purposes of seeking markets (including the retention of existing markets) or the obtaining of market information or market research, or creating or increasing demand for the export of goods that have been manufactured, produced, assembled, processed or packed or graded and sorted in New Zealand. "Services" means services in relation to construction projects, courses of educational training or the furnishing of technical advice or assistance; or
- Have been incurred primarily and principally for the purpose of attracting tourists to New Zealand.

Qualifying expenditures in general, are only those costs which are incurred outside New Zealand in promoting exports, and include, amongst others:

- Overseas travel and accommodation expenses.
- Salaries and wages paid to New Zealand based employees in respect of the time spent outside New Zealand.
- Expenses (including those incurred in New Zealand) of advertising outside New Zealand.
- Direct costs of providing samples or technical information to persons outside New Zealand, reduced by any consideration received.
- Costs incurred outside New Zealand in the preparation or submission of tenders or quotations, or in sales promotion activities or campaigns.
- Payments to overseas agents for the purposes of activities carried on outside New Zealand.
- The value of time spent by self-employed taxpayers on export market development activities outside New Zealand.

Expenditures which do not qualify for the incentive include:

- Entertainment expenses.
- Director's fees.
- Salaries and wages paid in respect of employee's time within New Zealand.

- Payments to agents for work carried out within New Zealand.
- Costs of advertising inside New Zealand.
- Commissions on sales.
- Expenditure in respect of which an Export Programme Grant or a Tourism Export Programme Grant has been received. However, the proportion of expenditure not reimbursed by the grant will be allowed as an ordinary deduction from assessable income.

Where the tax incentive credit is allowed in respect of qualifying expenditure, the same expenditure cannot be deducted from assessable income.

The available tax credits are:

1987 income year	69 % tax credit
1988 income year	64 % tax credit
1989 income year	42 % tax credit
1990 income year	40 % tax credit

Example:

Qualifying Expenditure:

Salaries and Wages	\$17,000
Overseas travel and accommodation	5,250
Net cost of samples	750
Advertising overseas	<u>2,000</u>
Total qualifying expenditure	\$25,000

Expenditure which qualifies for tax credit \$25,000

Tax Credit is 40% of \$25,000 i.e. \$ 10,000

However the expenditure of \$25000 would not be deductible for tax.

#### 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 progressive write down provisions apply to the spouse only to the extent that they would apply to the transferor.
- The rights of ownership of an asset will accompany the asset if it is transferred under a matrimonial agreement. These relate to depreciation, the recovery of depreciation upon disposal of the asset, the claiming of the relevant investment allowances, and the recovery of the investment allowance if it is disposed of within 12 months of the original purchase.

## **4.13 FRINGE BENEFIT TAX**

### **4.13.1 General Provisions**

Fringe benefit tax is payable at 49% of the taxable value of fringe benefits provided to employees, and is payable by the employer 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 now deductible for income tax purposes.

The tax is payable by every employer who directly or indirectly grants a fringe benefit to an employee (which includes a former employee or a prospective employee).

With effect from 1 April 1989, benefits provided to employees who are major shareholders are subject to Fringe Benefit Tax.

### **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, excluding loans made to employees under an employee share purchase scheme.  
Loans must be granted 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.
3. Subsidised transport where the employer is a public carrier.
4. Retirement benefits.  
Retirement benefits in the form of a bonus, gratuity or retiring allowance made after 1 October 1988 are subject to fringe benefit tax. Benefits which come into this category are completely tax free to the employee, however.  
Superannuation contributions were liable to fringe benefits tax (at special rates) if they were paid between 17 December 1987 and 31 March 1989.  
Lump sum redundancy payments paid after October 1 1988 are subject to fringe benefit tax only to the extent that they exceed the "specified sum". The "specified sum" is calculated as the average of the employee's last three years' salary or wage. If the employment has been for less than ten years, the specified sum is the average of the last three year's salary, divided by ten and multiplied by the number of years service. The maximum specified sum is \$20,000.  
The total specified sum is exempt from fringe benefit tax. In addition, only 5% of it is assessable income to the employee.
5. Other benefits, such as free, subsidised or discounted goods and services, e.g. free milk, meat, firewood etc. provided to a farm worker. Other fringe benefits, for instance, life

insurance or accident insurance premiums paid on behalf of an employee or family, school fees for an employee's children.

Benefits specifically excluded are:

- 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.
- Payments made by the employer to enable the employee to entertain current or prospective client/customers.
- Club subscriptions paid by employer, provided it would be ordinarily tax-deductible to the employer.
- Lump sum redundancy allowance, provided the amount paid is less than the "specified sum" defined in the Income Tax Act.
- Board, lodging and free/subsidised accommodation (as these are already assessable as income).
- Benefits provided and enjoyed on the business premises  
e.g. sports and recreational facilities, dining facilities etc.

There are two general exemptions for benefits in this category:

- \$50 per employee per quarter; and
- 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:
  1. For sale goods-
    - a. The difference in price is made up of the discount to the public plus the usual staff discount, and
    - b. 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
    - c. A reasonable quantity of these sale goods are available to the public.
  2. For non-sale goods, the price is not less than 95% of the retail price.

#### **4.13.3 Calculation of Fringe Benefit Tax**

General formula is:

$$\begin{array}{r} \text{Value of fringe benefit} \\ \text{less } \underline{\text{employee's contribution}} \\ = \underline{\text{Taxable value of fringe benefit}} \end{array}$$

The amount of fringe benefit tax payable is the taxable value of fringe benefit multiplied by the rate of FBT.(49%).

#### 4.13.4 Value of Fringe Benefit

##### 1. Motor Vehicles

$$\frac{\text{Value of benefit}}{\text{No. days available for private use (max 90)}} \times Z$$

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 or machinery 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.

"Z" is 6% of 

- cost price of vehicle including GST; or
- market value of vehicle at commencement of lease, including GST;

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

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.

From 1 January 1989, the rate has been 15%.

This rate applies to loans with variable interest rates. For loans 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

Taxable value is the greater of: 25% of highest cost to public for that class of travel, or the amount paid by 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 and domestic accommodation) supplied in New Zealand, on or after 1 October 1986. 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 was 10% until 30 June 1989 and is now 12.5%.

Only persons who conduct a "taxable activity" are required to register for GST purposes, and are liable to charge and account for GST. To arrive at the net amount of GST payable to the IRD, registered persons (traders) 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.

"Goods" includes all kinds of personal and real property, excluding money.

"Services" are anything other than goods or money.

### Registration

Any person/organisation whose gross turnover from taxable activities is over \$24,000 p.a. must register, and charge and account for GST. Registration is optional for traders having an expected taxable turnover of less than \$24,000 p.a.

A taxable activity is any activity which involves the regular supply of goods or services to any other person for a consideration. 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 rented 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 - see next page.



Zero-rating occurs if:-

- The goods are exported or are supplied outside New Zealand,
- A taxable activity is supplied as a going concern to a registered person, e.g. a business or property is sold as a going concern to a registered trader.
- The services were performed outside New Zealand,
- The services were related to the transportation of passengers or goods to or from New Zealand.

#### **4.14.2 Returns and Payment of GST**

Registered persons must furnish GST returns to the IRD. The standard period between returns is two months, but 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 within one month and one day of the end of the appropriate return period (e.g. 31 January, return is due by 1 March).

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 recorded on an invoice (accrual) basis, although a payments (cash) basis may be adopted by:

- Public or local authorities.
- Non-profit bodies.
- Registered persons whose total taxable supplies are less than \$500,000.

#### **4.14.3 Example :**

The GST payable by (or refundable to) a registered person for a return period is calculated as in the following example:

A) 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>

## B) Calculation of Input Tax:

Purchases/expenses - 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 assets)	\$50
<u>Total Input tax</u>	<u>\$650</u>
<b>GST PAYABLE (Output less Input Tax)</b>	<u><b>\$550</b></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.

Output tax is the GST charged in respect of the supply of goods and services made by the registered person. This amount may be calculated as:-

Total amount invoiced x "tax fraction"

N.B. The "tax fraction" is calculated as :

the GST percentage divided by 100 plus the GST rate and is 1/9 for a GST rate of 12.5%

or Alternatively the accounting system may 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).

### 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 in 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).

Some 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
plus	
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>
less	
GST inputs included in GST accruals book for Dec. (invoices on hand but not yet paid at 31 Dec.).	<u>\$ 321.05</u>
GST inputs on an invoice basis	<u>\$1,415.51</u>

Businesses using the invoice basis for GST also make similar adjustments for GST outputs on sales which have taken place but for which cash has not yet been received.

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";
- 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 \$100.

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 \$20.

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.

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 89	Feb 89	June 89	October 89	Sept 90
Nov 89	March 89	July 89	November 89	Oct 90
Dec 89	April 89	August 89	December 89	Nov 90
Jan 90	May 89	Sept 89	January 90	Dec 90
Feb 90	June 89	Oct 89	February 90	Jan 91
March 90	July 89	Nov 89	March 90	Feb 91
April 90	Aug 89	Dec 89	April 90	Feb 91
May 90	Sept 89	Jan 90	May 90	Feb 91
June 90	Oct 89	Feb 90	June 90	Feb 91
July 90	Nov 89	March 90	July 90	Feb 91
August 90	Dec 89	April 90	August 90	Feb 91
Sept 90	Jan 90	May 90	Sept 90	Feb 91

**Note:** Payment is due on the 7th day of the appropriate month

#### 4.15.2 Tax Rates

##### **Rates of Income Tax for Individuals**

###### 1987/88 Income Year

Up to \$9,500	15.0 % of income
9,501 - 30,000	\$1425.00 plus 30.0 % of income over 9,500
Over 30,000	\$7575.00 plus 48.0 % of income over 30,000

###### 1988/89 Income Year

Up to 9500	19.5% of income
9501 to 30,000	\$1852.50 plus 27.0% of income over \$9500
30,000 to 30,875	\$7387.50 plus 36.0% of income over \$30,000
Over 30,875	\$7702.50 plus 40.5% of income over \$30,875

###### 1989/90 Income Year

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**

1987/88 income year: 48% (53% for overseas companies)  
1988/89 income year: 28% (33% for overseas companies)  
1989/90 income year: 33% (38% for overseas companies)

### 4.15.3 Expenditure on Land Improvements

Description and Rate of Depreciation Diminishing Value (%)

#### PART I

#### FARMING AND AGRICULTURE

	%
(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 access tracks or roads to or on the land and any culverts or bridges that are necessary for the purposes of that construction:	5
(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;  
or 20
- (b) The construction and erection of posts, rails, or  
other structures for the holding of spatting sticks  
during spat catching and maturing; or 20
- (c) The construction of fences (including breakwater  
fences). 20

PART IV

MUSSEL FARMING

- (a) The acquisition, preparation, and mooring of  
pontoons, rafts, or other floating structures for  
collecting spat: 20
- (b) The acquisition, mooring, and outfitting of moored  
floating platforms or longlines from which the  
collected spat is suspended for subsequent growth: 20
- (c) The collecting and depositing of shell or other  
suitable material on the sea bed to create spatting  
surfaces. 20

PART V

SCALLOP FARMING

- (a) The acquisition, preparation, and mooring of  
floating structures for collecting spat: 20
- (b) The acquisition, mooring, and outfitting of  
longlines from which the collected spat is  
suspended for subsequent growth. 20

PART VI

SEA-CAGE SALMON FARMING

- (a) The acquisition, preparation, and mooring of  
pontoons, rafts, or other floating structures for  
securing or protecting cages or other containment  
vessels: 20

4.15.3 continued

- |   |    |
|---|----|
| (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 Livestock Values

Note - Section contents include:

- Average market values of specified livestock 1989
- Average market values of specified livestock 1987-88

#### Average Market Values of Specified Livestock 1989 Herd Classes marked with "\*"

**Note:** From 1989-90, further classes will also be treated as herd livestock. For each category, the immature female animals (e.g. ewe hoggets) will also become herd livestock where the herd option is used.

Type	Class	Standard Value \$	Herd Value (av.market value)\$	Trigger Price for high priced livestock \$
<b>Sheep</b>	Ewe Hoggets	12.27	16.20	64.80
	Ram & Wether hoggets	12.27	16.20	64.80
	*Two Tooth ewes	17.19	23.90	95.60
	*Rising 3 & 4yr ewes	10.00	12.30	49.20
	*Rising 5yr & older	7.91	10.60	42.40
	*Mixed-age wethers	9.26	12.70	50.80
	*Breeding Rams	96.46	152.80	611.20
<b>Cattle</b>	Beef Breeds and Beef Crosses: Rising 1yr heifers	136.50	199.00	597.00
	*Rising 2yr & older heifers (maiden & 1st calvers)	192.96	279.00	837.00
	*Mixed-age cows second and subsequent calvers	194.36	287.00	861.00
	Rising 1yr steers & bulls	182.00	258.00	774.00
	Rising 2 yr & older steers & bulls	359.33	543.00	1629.00
	*Breeding Bulls	600.00	1167.00	3501.00

4.15.4 continued

**Friesian and Related Breeds:**

Rising 1 yr heifers	145.60	241.00	723.00
*Rising 2yr & older heifers (maiden & 1st calvers)	258.06	408.00	1224.00
*Mixed-age cows (second and subsequent calvers)	246.16	367.00	1101.00
Rising 1yr steers & bulls	125.53	205.00	615.00
Rising 2yr & older steers & bulls	359.33	543.00	1629.00
*Breeding Bulls	414.16	834.00	2502.00

**Jersey and Other Dairy Breeds:**

Rising 1 yr heifers	133.70	236.00	708.00
*Rising 2yr & older heifers (maiden & 1st calvers)	231.93	419.00	1257.00
*Mixed-age cows (second and subsequent calvers)	185.73	293.00	879.00
Rising 1yr steers & bulls	117.36	201.00	603.00
Rising 2yr & older steers & bulls	252.93	376.00	1128.00
*Breeding Bulls	312.66	529.00	1587.00

**Deer - Red Deer**

Rising 1yr hinds	350.00	350.00	1050.00
*Rising 2yr & older hinds (maiden/first fawning)	419.00	419.00	1257.00
*Mixed-age hinds (2nd and subsequent fawning)	394.00	394.00	1182.00
Rising 1yr stags	144.20	190.00	570.00
*Rising 2yr & older stags (non-breeding)	224.00	324.00	972.00

## 4.15.4 continued

*Breeding Stags	1016.00	1106.00	3318.00
Wapiti, Elk and Related Breeds:			
Rising 1yr hinds	460.00	460.00	1380.00
*Rising 2yr & older hinds (maiden/first fawning)	524.00	524.00	1572.00
*Mixed-age hinds (2nd and subsequent fawning)	508.00	508.00	1524.00
Rising 1yr stags	155.40	190.00	570.00
*Rising 2yr & older stags (non-breeding)	261.80	379.00	1137.00
*Breeding Stags	934.73	1220.00	3660.00
Other Breeds			
Rising 1yr hinds	287.00	287.00	861.00
*Rising 2yr & older hinds (maiden/first fawning)	370.00	370.00	1110.00
*Mixed-age hinds (2nd and subsequent fawning)	390.13	393.00	1179.00
Rising 1yr stags	87.96	105.00	315.00
*Rising 2yr & older stags (non-breeding)	90.53	114.00	342.00
*Breeding Stags	369.00	369.00	1107.00
<b>Goats</b>			
Angora and Angora Crosses - Mohair producing including purebred and G1 to G3:			
Rising 1yr does	11.00	11.00	44.00
*Mixed-age does	16.00	16.00	64.00
Rising 1 yr bucks (non-breeding) and wethers	8.00	8.00	32.00

4.15.4 continued

Rising 2 yr & older bucks (non breeding) and wethers	10.00	10.00	40.00
*Breeding Bucks	84.00	84.00	336.00
<b>Other fibre and meat producing goats - including Cashmere or Cashgora producing and G4:</b>			
Rising 1yr does	8.00	8.00	32.00
*Mixed-age does	7.00	7.00	28.00
Rising 1 yr bucks (non-breeding) and wethers	2.56	4.00	16.00
*Rising 2 yr & older bucks (non breeding) and wethers	7.00	8.00	32.00
*Breeding Bucks	62.00	62.00	248.00
<b>Milking (Dairy) Goats</b>			
Rising 1yr does	10.00	10.00	40.00
*Does over 1 year	11.00	11.00	44.00
*Breeding Bucks	61.36	113.00	452.00
Other dairy goats	7.00	8.00	32.00
<b>Pigs</b>			
Rising 1yr breeding sow	67.43	97.00	291.00
*Mixed-age breeding sows	115.03	166.00	498.00
*Breeding Boars	154.46	223.00	669.00
Weaners <10 weeks old	30.80	35.00	105.00
Porkers/Baconers 10 to 17 weeks old	67.20	96.00	288.00
Baconers over 17 weeks old	102.43	141.00	423.00

## 4.15.4 continued

**Average Market Values of Specified Livestock 1987-88**  
Herd classes marked "\*"

Type	Class	1987	1988	1988
		(Ave. market values)	(Ave. market values)	Std values
		\$	\$	\$
<b>Sheep</b>	Ewe hoggets	17.20	19.20	12.74
	Ram and wether hoggets	17.20	19.20	12.74
	* Two-tooth ewes	22.30	27.50	17.43
	* Mixed-age ewes (3yr & 4 year old ewes)	13.20	17.40	10.71
	* Rising 5yr & older ewes	9.80	13.50	8.15
	* Mixed-age wethers	11.60	15.40	9.45
	* Breeding rams	124.20	136.40	91.21
<b>Cattle</b>	Beef breeds and beef crosses:			
	Rising 1yr heifers	195.00	191.00	135.10
	* Rising 2yr & older heifers (maiden/first calving)	273.00	275.00	191.80
	* Mixed-age cows (2nd and subs. calving)	253.00	293.00	191.10
	* Rising 1yr steers & bulls	264.00	258.00	182.70
	Rising 2yr & older steers & bulls	499.00	498.00	348.95
	* Breeding bulls	682.00	470.00	491.75

.15.4 continued

Friesian and related breeds:

Rising 1yr heifers	170.00	213.00	134.05
* Rising 2yr & older heifers (maiden/first calving)	341.00	357.00	244.30
* Mixed-age cows (2nd and subs. calving)	338.00	350.00	240.80
Rising 1yr steers & bulls	153.00	180.00	116.55
Rising 2yr & older steers & bulls	499.00	498.00	348.95
* Breeding bulls	471.00	470.00	329.35

Jersey and other dairy breeds:

Rising 1yr heifers	151.00	186.00	117.95
* Rising 2yr & older heifers (maiden/first calving) .	263.00	312.00	201.25
* Mixed-age cows (2nd & subs. calving).	263.00	259.00	176.05
Rising 1yr steers & bulls	136.00	166.00	105.70
Rising 2yr & older steers & bulls	499.00	367.00	247.00
* Breeding bulls	382.00	429.00	283.85

**Deer**

Red deer:

Rising 1yr hinds	1126.00	739.00	625.75
* Rising 2yr & older hinds (maiden/first fawning)	1521.00	729.00	729.00
* Mixed-age hinds (2nd & subs. fawning)	1266.00	865.00	745.85
Rising 1yr stags	231.00	197.00	149.80



Section 4.15.4 continued

	* Rising 2yr & older stags (non-breeding)	310.00	326.00	222.60
	* Breeding stags	2036.00	1213.00	1137.15
	Wapiti, Elk, and related crossbreds:			
	Rising 1yr hinds	1352.00	794.00	751.10
	* Rising 2yr & older hinds (maiden & first fawning)	1800.00	783.00	783.00
	* Mixed-age hinds (2nd & subs. fawning hinds)	1604.00	929.00	886.55
	Rising 1yr stags	249.00	227.00	166.60
	* Rising 2yr & older stags (non-breeding)	362.00	381.00	260.05
	* Breeding stags	1752.00	1034.00	975.10
	Other breeds:			
	Rising one-year hinds	576.00	540.00	390.60
	* Rising 2yr & older hinds (maiden/first fawning)	777.00	533.00	458.50
	* Mixed-age hinds (2nd & subs. fawning)	647.00	632.00	447.65
	Rising 1yr stags	98.00	174.00	95.20
	* Rising 2yr & older stags (non-breeding)	140.00	134.00	95.90
	* Breeding stags	868.00	610.00	517.30
<b>Goats</b>	Angora and Angora Crosses Mohair producing - Purebred and G1 to G3 (1987 = Purebred and G1 to G4)			
	Rising 1yr does	98.00	38.00	38.00
	Rising 2yr does	158.00	-	-

4.15.4 continued

* Mixed-age does	176.00	81.00	81.00
Rising 1yr bucks (non-breeding)/ wethers	17.00	13.00	10.50
* Bucks (non-breeding)/wethers over 1yr	19.00	16.00	12.25
* Breeding bucks	549.00	182.00	182.00

Other fibre and meat-producing goats including cashmeres and cashgora producing :

Rising 1yr does	62.00	23.00	23.00
Rising 2 yr does	103.00	-	-
* Mixed-age does	117.00	29.00	29.00
Rising 1yr bucks (non-breeding)/ wethers	1.00	6.00	2.45
* Bucks (non-breeding)/wethers over 1 yr	9.00	13.00	7.70
* Breeding bucks	159.00	51.00	51.00

Milking (dairy) goats:

Rising 1yr does	62.00	26.00	26.00
* Does over 1yr	115.00	35.00	35.00
* Breeding bucks	75.00	75.00	52.50
Other dairy goats	9.00	13.00	7.70

4.15.4 continued

<b>Pigs</b>	Breeding sows less than 1yr of age	82.00	110.00	67.20
	* Breeding sows over 1yr	143.00	184.00	114.45
	* Breeding boars	193.00	246.00	153.65
	Weaners less than 10 wks of age (excluding sucklings)	44.00	53.00	33.95
	Growing pigs 10 to 17 wks of age (porkers/baconers)	87.00	105.00	67.20
	Growing pig over 17 wks of age (baconers)	139.00	159.00	104.30

#### 4.15.5 Livestock Taxation Examples

##### Livestock Taxation 1989

Livestock on hand at 30 June 1988

	<u>Nos.</u>	<u>Average Mkt. Value</u>	<u>Standard Value</u>
Ewe hoggets	860	\$19.20	\$12.74
2th ewes	760	\$27.50	\$17.43
3 & 4yr ewes	1340	\$17.40	\$10.71
5yr & older	590	\$13.50	\$8.15
Rams	75	\$136.40	\$91.21

Livestock on hand at 30 June 1989

Ewe hoggets	900	\$16.20	\$12.27
2th ewes	700	\$23.90	\$17.19
3 & 4yr ewes	1300	\$12.30	\$10.00
5yr & older	600	\$10.60	\$7.91
Rams	60	\$152.80	\$96.46

Assume	Sales	\$40000
	Purchases	\$ 6000

##### a) Trading Stock Scheme

	<u>1989 Closing Tax Values</u>		\$
	Ewe hoggets	900 x \$12.27	= 11043.00
	2th ewes	700 x \$17.19	= 12033.00
	3 & 4yr ewes	1300 x \$10.00	= 13000.00
	5 & 6yr ewes	600 x \$7.91	= 4746.00
	Rams	60 x \$96.46	= <u>5787.60</u>
			\$46,609.60
less	<u>Opening Tax Values</u>		\$
	Ewe hoggets	860 x \$12.74	= 10956.40
	2th ewes	760 x \$17.43	= 13246.80
	3 & 4yr ewes	1340 x \$10.71	= 14351.40
	5 & 6yr ewes	590 x \$8.15	= 4808.50
	Rams	75 x \$91.21	= <u>6840.75</u>
			\$50,203.85

Decrease in taxable income due to changes in livestock  
(46,609.60 minus \$50,203.85) \$3594.25

	<u>Income from Livestock Operations</u>	
	Sales	\$40000.00
less	Purchases	<u>6000.00</u>
	Cash Surplus	34000.00
less	Decrease in value of livestock	3594.25

Taxable Income 1989 (before adding other income and deducting other expenses)	<u>\$30405.75</u>
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**b) Herd Scheme**

Valuation of Livestock

Herd Animals : Average market value.

Others : Standard value (70% of 3 year rolling average market value).

<u>1989 Closing Tax Value</u>			\$
Ewe hoggets	900 x	\$12.27	11043.00
2th ewes	700 x	\$23.90	16730.00
3 & 4yr ewes	1300 x	\$12.30	15990.00
5 & 6yr ewes	600 x	\$10.60	6360.00
Rams	60 x	\$152.80	<u>9168.00</u>
			\$59291.00
less <u>Opening Tax Values</u>			\$
Ewe hoggets	860 x	\$12.74	10956.40
2th ewes	760 x	\$23.90	18164.00
3 & 4yr ewes	1340 x	\$12.30	16482.00
5 & 6yr ewes	590 x	\$10.60	6254.00
Rams	75 x	\$152.80	<u>11460.00</u>
			\$63316.40
Decrease in taxable income due to changes in livestock (\$59291.00 minus \$63316.40)			\$4025.40
<u>Income from Livestock Operations</u>			
			\$40000.00
less		Purchases	<u>6000.00</u>
		Cash Surplus	34000.00
less		Decrease in value of livestock	4025.40
Taxable Income 1989 (before adding other income and deducting other expenses)			<u>\$29974.60</u>

#### 4.15.6 Livestock Taxation Changes in 1987

Significant changes to the tax treatment of livestock took place in 1987. Transitional arrangements include spreading and deferring some income to the 1988/1992 income years. The 1987 changes are set out below:

##### Transition to the new livestock tax regime

The major steps in the transition process are as follows:

1. The taxpayer must choose a method of livestock valuation and notify the Tax Department by the due date for the 1987 tax return. If no election is made, then it is assumed that the trading stock scheme is selected.
2. Revalue livestock on hand at the end of the 1987 income year as follows:
  - \* trading stock scheme - 70% of market value
  - \* herd scheme - herd animals at 100% market value,  
- non herd animals at 70% market value
  - \* cost option - 70% of market value ("cost" is deemed to be the same as for trading stock)

The value of stock on hand at the 1987 balance date is calculated as the 1987 closing numbers multiplied by the 1987 closing tax value, aggregated for all types and classes of livestock.

The exceptions to this are:

- \* Stud or pedigree stock owned at the end of the 1986 income year which, at the time, had a tax value higher than the 1987 average market value. Such stock are to be retained at the old value until such time as the average market value exceeds the old value. (This does not apply to the herd scheme).
  - \* High priced livestock purchased during 1986 income year (based on 1986 market values).
  - \* High priced livestock purchased during 1987 income year.
  - \* Stock subject to the progressive write-down provisions.
3. Calculate the amount of concessional income write-off. The total write-off is the aggregate for all classes of the amounts calculated using the formula

$$a \times (b - c)$$

where "a" is the base number of livestock for that class which is at the taxpayer's option:

\* the number on hand at 1985 balance date or

- \* the lesser of (i) the number of stock over 12 months old on hand at 12 December 1985
- or (ii) the number of stock on hand at 1986 balance date

"b" is 70% of the 1987 (national) average market value for that class.

"c" is the 1987 opening tax value for that class.

provided that (i) if (b-c) for any class is less than zero, then the result for that class is deemed to be nil.

- (ii) if the aggregate is less than zero, then it is deemed to be nil.

For a farmer who ceased farming between 12 December 1985 and the end of the 1986 income year, the write-off is calculated as:

(70% x sale proceeds) - 1987 opening tax value  
or probate value

4. Calculate the amount of spreadable livestock revaluation income which can be spread forward over a period of up to 5 income years (commencing 1987), subject to a minimum of 20% p.a.

The amount which can be spread is the amount left after deducting the income write-off from the aggregate for all classes of the amounts calculated using the formula:

$$a \times (b - c)$$

where "a" is the lesser of

- \* 1987 ending numbers for that class
- or
- \* 1987 opening numbers for either the same class or the class which is one year younger (Whatever choice is made will apply to all classes within one type of livestock)

"b" is the 1987 ending tax value

"c" is the 1987 opening tax value

provided that if the aggregate is less than zero, then it is deemed to be nil.

5. Calculate the amount of income which can be deferred from the 1987 income year.

The 5 year spread of excess livestock revaluation income is broadly based on the lesser of opening and closing numbers. The amount of revaluation income due to an increase in stock numbers over the 1987 income year can, at the taxpayers election, be spread over the 1987, 1988 and 1989 income years. Written election must be made by 31 March 1988 or within the 1987 tax return.

The amount of deferrable livestock valuation income is calculated as;

$$a - (b - c) - d$$

where "a" is 1987 closing tax value minus 1987 opening tax value.

"b" is the cost of herd class livestock purchased or captured in the 1987 year.

"c" is the proceeds of herd class livestock sold in the 1987 year.

"d" is the sum of

- \* tax-free revaluation of base numbers (i.e. write-off) See 3. above.

- \* the amount of revaluation eligible for the five-year spread (spreadable income) See 4. above.

- \* the amount of loss incurred for the 1987 year plus any farming losses carried forward (if any).

provided that (i) if (b-c) is negative, then it is deemed to be nil.

(ii) if the aggregate is less than zero, then it is deemed to be nil.

#### 4.15.7 Accrual Rules for Expenditure

Expenditures which can be treated as a lump sum expense when incurred, and the upper limit after which they must be accrued 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	\$5500 (max. per year for each Association)
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 \$22000 (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 \$22000
Insurance premiums	Must not relate to a period beyond 12 months past balance date and the amount unexpired must not exceed \$11000
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 \$22000
Consumable aids	Must be in the possession of the taxpayer at balance date and the unexpired portion must not exceed \$55000



Periodic charges	Must not relate to a period beyond 12 months past balance date and the unexpired portion must not exceed \$11000
Rates	No Limit
Advance bookings for travel and accommodation	Maximum \$11000, must not exceed 6 months after balance date.
Advertising	Maximum \$11000, 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.

#### 4.15.3 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 leviabale 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>Industrial Activity</u>	<u>Class No.</u>	<u>Levy per \$100</u> 1990/91
Agricultural Contracting	21	1.70
Drainage or Sewer System Construction	38	2.75
Building Construction	38	2.75
Fence-erecting and repairing	21	1.70
Farming	21	1.70
Fish farming	23	2.65
Market gardening	21	1.70
Orchards - including berry fruit	21	1.70
Spraying - agricultural (excluding aircraft)	21	1.70
Stock buying	39	1.20
Aviation - fixed wing aircraft (aerial topdressing and spraying)	21	1.70

#### **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 7 February in the following year.

#### 4.15.9 Schedule Rates of Depreciation

These rates are as published in Depreciation Allowances Pamphlet March 1987 I.R.270 - Inland Revenue Department.

D.V. denotes Diminishing Value  
 C.P. denotes Cost Price to Taxpayer  
 S.V. denotes Standard Values  
 \* Denotes the following options:

	Replacement only or Annual revaluation or Standard values.	%
Agricultural plant and equipment:		
General including tractor drawn implements		10 D.V.
Self propelled equipment		20 D.V.
Aircraft:		
Fixed wing agricultural aerial work aircraft, including wing attachments for spraying, dusting and distributing seed:		
- acquired on or before 31 March 1969		50 D.V.
- acquired after 31 March 1969		33.3 D.V.
Helicopters from and including year ended 31 March 1969		
- Airframe, engine, rotor system		25 D.V.
- Spraying tanks and attached spraying mechanism		33.3 D.V.
Barns:		
Simple loafing barns		10 C.P.
Wintering barns all types of construction		10 C.P.
Beehives - cost of replacing dilapidated hive may be claimed		
Boats - see Vessels		
Boilers		10 D.V.
Bores and wells		*
Bridges:		
Wooden		2.5 C.P.
Others		2 C.P.
Buildings:		
Reinforced concrete, steel or reinforced concrete framed with walls of permanent materials		1 C.P.
Brick, stone or concrete walled without steel or reinforced concrete frame stucco, steeltex or other similar construction with wooden frame		2 C.P.
Wooden framed - not specified elsewhere		2.5 C.P.
Affected by acid fumes - vinegar manufacturers, fertiliser works, bulk fertiliser stores, chemical works tanneries		4 C.P.
Portable huts		10 D.V.
"Temporary Buildings"		10 D.V.
Bulk lime spreaders		10 D.V.
Bulldozers:		
General		20 D.V.
Earthmoving contractors		25 D.V.
Cars and Trucks:		
Rental		25 D.V.
Other		20 D.V.
Carts, drays and waggons		10 D.V.

Casks, kegs and barrels	S.V.
Chainsaws	50 D.V.
Cloches *	
Compressors:	
Portable	15 D.V.
Fixed	10 D.V.
Computers - electronic	20 D.V.
Concrete mixers	15 D.V.
Electric test equipment	20 D.V.
Electronic scales	20 D.V.
Ensilage pits - concrete walls with sliding roof	10 D.V.
Feeding out units for cattle - all types of construction	4 C.P.
Fences:	
Electric	10 D.V.
Others	Maintenance
Fire fighting plant and equipment:	
Reservoir	1 C.P.
Ring main and hydrants	1 C.P.
Breathing apparatus, hoses, pipelines, pumps and diesel engines	10 D.V.
Axes, ladders, blankets and fire extinguishers costing less than \$100 each	*
Fish processing buildings	4 C.P.
Fish processing plant	15 D.V.
Fishing boats and gear - see Vessels	
Fork lifts	20 D.V.
Freezers and cookers for preparation and storage of dog meat	10 D.V.
Fowl houses - see poultry	
Frost protection plant - pumping unit, sprinklers, standards and pipelines	10 D.V.
Fuel tanks:	
Underground	as for buildings
Other including stands	10 D.V.
Gas cylinder containers	S.V.
Gas water heaters	10 D.V.
Glasshouses:	
Wooden framed	5 C.P.
Metal framed	3 C.P.
P.V.C Tunnel houses	7.5 C.P.
Grain drying and storage bins	5 D.V.
Grain drying plant	10 D.V.
Grain - portable silos - see silos	
Hay balers	20 D.V.
Header harvesters	20 D.V.
Heating system	10 D.V.
Helicopters - see aircraft	
Herringbone milking sheds first used or converted on or after 1 April 1966	10 C.P.
Hop frames	*
	or development expenditure
Hop kilns	15 D.V.
Incinerators	10 D.V.
Lawnmowers:	
Motor driven	20 D.V.
Others	10 D.V.
Lime spreaders bulk	10 D.V.
Livestock saleyards - see saleyards	
Loose tools - no single item to exceed \$150 in cost	*

Milking sheds - all types:		
Built before 1 April 1966		4 C.P.
Built after 1 April 1966		10 C.P.
Cost of converting to herringbone design after 1 April 1966		10 C.P.
		of conversion costs
Rotary Herringbone		10 D.V.
Motor vehicles, trucks and scooters		20 D.V.
Office equipment and machines		20 D.V.
Pallets		*
Pig houses - all types		10 C.P.
Pipelines:		
Generally		maintenance
Irrigation plant/frost protection systems		10 D.V.
Plant and machinery - except as elsewhere specified:		
General including agricultural plant and implements but not motor vehicles		10 D.V.
Plastic pots for tomato growing		S.V.
Poultry:		
Battery type cages		10 D.V.
Colony houses with wooden frames, iron roofs and netting sides and bases		10 D.V.
Fowl houses	-steel framed	2.5 C.P.
	-wooden framed	5 C.P.
Power lines		maintenance
Radio equipment including sound recording and echo sounders		20 D.V.
Saddlery and harnesses		*
Saleyards:		
Constructed after 1 April 1971		2 C.P.
Constructed prior to April 1971		
- less than 40 years old. Spread over remaining years (assume life of 50 years)		
- 40 years or more		10 C.P.
Additions:		
- if part of an existing yard - spread over remaining life of yard		
- if virtually a new yard		2 C.P.
Saws - chain		50 D.V.
Sawmillers- diesel or petrol tractors, locomotives and power units used for log hauling		20 D.V.
Scales and weighing machines		
- mechanical		10 D.V.
- electronic		20 D.V.
Septic tanks and sewerage systems		As for buildings
Sheep and cattle yards:		
Uncovered yards - see saleyards		
Roofed yards		Appropriate building rate on roof
Gratings	- fixed	Appropriate building rate
	- Loose	*
Sheep crate		15 D.V.
Sheep and cattle dips:		
Shower type		
- tanks and pipes		10 D.V.
- dip or shower (including pumps)		10 D.V.
- electric motor and fitting		10 D.V.
Spray type		
- Shed		Building rates
- Base (race, floor of dip, two draining pens and sump)		Development expenditure
- tanks and pipes, dip including pumps electric motor and fittings		10 D.V.
Silage storage bunkers		Development expenditure and maintenance

Silos - Grain:		
- with built in drying and loading/unloading machinery		10 D.V.
- With separate drying, loading/unloading machinery		5 D.V.
- if erected on farms		10 D.V.
- portable	Cost of replacement or scrapping if abandoned	
Slaughterhouse on farms:		
Concrete		5 C.P.
Timber and concrete		6 C.P.
Timber		10 C.P.
Spray plant - orchardists:		
Self propelled and air blast units		20 D.V.
Others		10 D.V.
Stock food manufacturing plant		15 D.V.
Storage tanks - underground	As for buildings	
Tank stands		10 D.V.
Tarpaulins		*
Threshing plant		20 D.V.
Tomatoes:		
Plastic pots for growing		S.V.
Structure for shading		5 C.P.
Tools - see loose tools		
Traction engines		10 D.V.
Tractors		20 D.V.
Trailers	Rate applicable to vehicle by which drawn	
Trickle irrigation equipment in glasshouses		25 D.V.
Trucks - see motor trucks		
Tunnel houses P.V.C.		7.5 C.P.
Underground silage pits - concrete walled with sliding roof		10 D.V.
Vessels (Registered for fishing):		
- Hulls including fixed gear and refrigeration rooms		10 D.V.
- Deck machinery, winches, freezing machinery and motors		15 D.V.
- Main engines		20 D.V.
Waggons, carts and drays		10 D.V.
Water towers	Appropriate building rate	
Weighing machines and scales		10 D.V.
Wells and water bores		*
Windmills		10 D.V.
Wine making industry:		
Tanks and vats		
- stainless steel		10 D.V.
- Wooden		10 D.V.
- Concrete:		
for fermentation		10 D.V.
for storage		4 C.P.
Casks and barrels		
- both circulating or storage		S.V.
Wintering barns - all types of construction		10 C.P.
Wire ropes		*

4.15.10 Tax Deductions from Payments for Weekly Pay Periods

31-8-88

Schedules

60,301

APPENDIX A

Tax Deductions from Payments for Weekly Pay Periods

EARNINGS			TAX USING CODE			EARNINGS			TAX USING CODE			EARNINGS			TAX USING CODE			EARNINGS			TAX USING CODE		
T	G	S	T	G	S	T	G	S	T	G	T	G	S	T	G	T	G	S	T	G	T	G	S
0.20	0.00	0.02	13.20	0.00	1.97	26.20	0.00	3.92	38.20	0.00	5.87												
0.40	0.00	0.05	13.40	0.00	2.00	26.40	0.00	3.95	38.40	0.00	5.90												
0.60	0.00	0.08	13.60	0.00	2.03	26.60	0.00	3.98	38.60	0.00	5.93												
0.80	0.00	0.11	13.80	0.00	2.06	26.80	0.00	4.01	38.80	0.00	5.96												
1.00	0.00	0.15	14.00	0.00	2.10	27.00	0.00	4.05	40.00	0.00	6.00												
1.20	0.00	0.17	14.20	0.00	2.12	27.20	0.00	4.07	40.20	0.00	6.02												
1.40	0.00	0.20	14.40	0.00	2.15	27.40	0.00	4.10	40.40	0.00	6.05												
1.60	0.00	0.23	14.60	0.00	2.18	27.60	0.00	4.13	40.60	0.00	6.08												
1.80	0.00	0.26	14.80	0.00	2.21	27.80	0.00	4.16	40.80	0.00	6.11												
2.00	0.00	0.30	15.00	0.00	2.25	28.00	0.00	4.20	41.00	0.00	6.15												
2.20	0.00	0.32	15.20	0.00	2.27	28.20	0.00	4.22	41.20	0.00	6.17												
2.40	0.00	0.35	15.40	0.00	2.30	28.40	0.00	4.25	41.40	0.00	6.20												
2.60	0.00	0.38	15.60	0.00	2.33	28.60	0.00	4.28	41.60	0.00	6.23												
2.80	0.00	0.41	15.80	0.00	2.36	28.80	0.00	4.31	41.80	0.00	6.26												
3.00	0.00	0.45	16.00	0.00	2.40	29.00	0.00	4.35	42.00	0.00	6.30												
3.20	0.00	0.47	16.20	0.00	2.42	29.20	0.00	4.37	42.20	0.00	6.32												
3.40	0.00	0.50	16.40	0.00	2.45	29.40	0.00	4.40	42.40	0.00	6.35												
3.60	0.00	0.53	16.60	0.00	2.48	29.60	0.00	4.43	42.60	0.00	6.38												
3.80	0.00	0.56	16.80	0.00	2.51	29.80	0.00	4.46	42.80	0.00	6.41												
4.00	0.00	0.60	17.00	0.00	2.55	30.00	0.00	4.50	43.00	0.00	6.45												
4.20	0.00	0.62	17.20	0.00	2.57	30.20	0.00	4.52	43.20	0.00	6.47												
4.40	0.00	0.65	17.40	0.00	2.60	30.40	0.00	4.55	43.40	0.00	6.50												
4.60	0.00	0.68	17.60	0.00	2.63	30.60	0.00	4.58	43.60	0.00	6.53												
4.80	0.00	0.71	17.80	0.00	2.66	30.80	0.00	4.61	43.80	0.00	6.56												
5.00	0.00	0.75	18.00	0.00	2.70	31.00	0.00	4.65	44.00	0.00	6.60												
5.20	0.00	0.77	18.20	0.00	2.72	31.20	0.00	4.67	44.20	0.00	6.62												
5.40	0.00	0.80	18.40	0.00	2.75	31.40	0.00	4.70	44.40	0.00	6.65												
5.60	0.00	0.83	18.60	0.00	2.78	31.60	0.00	4.73	44.60	0.00	6.68												
5.80	0.00	0.86	18.80	0.00	2.81	31.80	0.00	4.76	44.80	0.00	6.71												
6.00	0.00	0.90	19.00	0.00	2.85	32.00	0.00	4.80	45.00	0.00	6.75												
6.20	0.00	0.92	19.20	0.00	2.87	32.20	0.00	4.82	45.20	0.00	6.77												
6.40	0.00	0.95	19.40	0.00	2.90	32.40	0.00	4.85	45.40	0.00	6.80												
6.60	0.00	0.98	19.60	0.00	2.93	32.60	0.00	4.88	45.60	0.00	6.83												
6.80	0.00	1.01	19.80	0.00	2.96	32.80	0.00	4.91	45.80	0.00	6.86												
7.00	0.00	1.05	20.00	0.00	3.00	33.00	0.00	4.95	46.00	0.00	6.90												
7.20	0.00	1.07	20.20	0.00	3.02	33.20	0.00	4.97	46.20	0.00	6.92												
7.40	0.00	1.10	20.40	0.00	3.05	33.40	0.00	5.00	46.40	0.00	6.95												
7.60	0.00	1.13	20.60	0.00	3.08	33.60	0.00	5.03	46.60	0.00	6.98												
7.80	0.00	1.16	20.80	0.00	3.11	33.80	0.00	5.06	46.80	0.00	7.01												
8.00	0.00	1.20	21.00	0.00	3.15	34.00	0.00	5.10	47.00	0.00	7.05												
8.20	0.00	1.22	21.20	0.00	3.17	34.20	0.00	5.12	47.20	0.00	7.07												
8.40	0.00	1.25	21.40	0.00	3.20	34.40	0.00	5.15	47.40	0.00	7.10												
8.60	0.00	1.28	21.60	0.00	3.23	34.60	0.00	5.18	47.60	0.00	7.13												
8.80	0.00	1.31	21.80	0.00	3.26	34.80	0.00	5.21	47.80	0.00	7.16												
9.00	0.00	1.35	22.00	0.00	3.30	35.00	0.00	5.25	48.00	0.00	7.20												
9.20	0.00	1.37	22.20	0.00	3.32	35.20	0.00	5.27	48.20	0.00	7.22												
9.40	0.00	1.40	22.40	0.00	3.35	35.40	0.00	5.30	48.40	0.00	7.25												
9.60	0.00	1.43	22.60	0.00	3.38	35.60	0.00	5.33	48.60	0.00	7.28												
9.80	0.00	1.46	22.80	0.00	3.41	35.80	0.00	5.36	48.80	0.00	7.31												
10.00	0.00	1.50	23.00	0.00	3.45	36.00	0.00	5.40	49.00	0.00	7.35												
10.20	0.00	1.52	23.20	0.00	3.47	36.20	0.00	5.42	49.20	0.00	7.37												
10.40	0.00	1.55	23.40	0.00	3.50	36.40	0.00	5.45	49.40	0.00	7.40												
10.60	0.00	1.58	23.60	0.00	3.53	36.60	0.00	5.48	49.60	0.00	7.43												
10.80	0.00	1.61	23.80	0.00	3.56	36.80	0.00	5.51	49.80	0.00	7.46												
11.00	0.00	1.65	24.00	0.00	3.60	37.00	0.00	5.55	50.00	0.00	7.50												
11.20	0.00	1.67	24.20	0.00	3.62	37.20	0.00	5.57	50.20	0.00	7.52												
11.40	0.00	1.70	24.40	0.00	3.65	37.40	0.00	5.60	50.40	0.00	7.55												
11.60	0.00	1.73	24.60	0.00	3.68	37.60	0.00	5.63	50.60	0.00	7.58												
11.80	0.00	1.78	24.80	0.00	3.71	37.80	0.00	5.66	50.80	0.00	7.61												
12.00	0.00	1.80	25.00	0.00	3.75	38.00	0.00	5.70	51.00	0.00	7.65												
12.20	0.00	1.82	25.20	0.00	3.77	38.20	0.00	5.72	51.20	0.00	7.67												
12.40	0.00	1.85	25.40	0.00	3.80	38.40	0.00	5.75	51.40	0.00	7.70												
12.60	0.00	1.88	25.60	0.00	3.83	38.60	0.00	5.78	51.60	0.00	7.73												
12.80	0.00	1.91	25.80	0.00	3.85	38.80	0.00	5.81	51.80	0.00	7.76												
13.00	0.00	1.95	26.00	0.00	3.90	39.00	0.00	5.85	52.00	0.00	7.80												

\*NOTE—In calculating weekly earnings, ignore cents in excess and include value of allowances—e.g., board and lodging

APPENDIX A — continued

Tax Deductions from Payments for Weekly Pay Periods — continued

EARNINGS	TAX USING CODE		EARNINGS	TAX USING CODE		EARNINGS	TAX USING CODE		EARNINGS	TAX USING CODE	
	T	G		T	G		T	G		T	G
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
52.20	0.00	7.52	85.20	0.00	9.77	78.20	0.00	11.72	91.20	0.00	13.67
52.40	0.00	7.85	85.40	0.00	9.80	78.40	0.00	11.75	91.40	0.00	13.70
52.60	0.00	7.88	85.60	0.00	9.83	78.60	0.00	11.78	91.60	0.00	13.73
52.80	0.00	7.91	85.80	0.00	9.86	78.80	0.00	11.81	91.80	0.00	13.76
53.00	0.00	7.95	86.00	0.00	9.90	79.00	0.00	11.85	92.00	0.00	13.80
53.20	0.00	7.97	86.20	0.00	9.92	79.20	0.00	11.87	92.20	0.00	13.82
53.40	0.00	8.00	86.40	0.00	9.95	79.40	0.00	11.90	92.40	0.00	13.85
53.60	0.00	8.03	86.60	0.00	9.98	79.60	0.00	11.93	92.60	0.00	13.88
53.80	0.00	8.06	86.80	0.00	10.01	79.80	0.00	11.96	92.80	0.00	13.91
54.00	0.00	8.10	87.00	0.00	10.05	80.00	0.00	12.00	93.00	0.00	13.95
54.20	0.00	8.12	87.20	0.00	10.07	80.20	0.00	12.02	93.20	0.00	13.97
54.40	0.00	8.15	87.40	0.00	10.10	80.40	0.00	12.05	93.40	0.00	14.00
54.60	0.00	8.18	87.60	0.00	10.13	80.60	0.00	12.08	93.60	0.00	14.03
54.80	0.00	8.21	87.80	0.00	10.16	80.80	0.00	12.11	93.80	0.06	14.06
55.00	0.00	8.25	88.00	0.00	10.20	81.00	0.00	12.15	94.00	0.10	14.10
55.20	0.00	8.27	88.20	0.00	10.22	81.20	0.00	12.17	94.20	0.12	14.12
55.40	0.00	8.30	88.40	0.00	10.25	81.40	0.00	12.20	94.40	0.15	14.15
55.60	0.00	8.33	88.60	0.00	10.28	81.60	0.00	12.23	94.60	0.18	14.18
55.80	0.00	8.36	88.80	0.00	10.31	81.80	0.00	12.25	94.80	0.21	14.21
56.00	0.00	8.40	89.00	0.00	10.35	82.00	0.00	12.30	95.00	0.25	14.25
56.20	0.00	8.42	89.20	0.00	10.37	82.20	0.00	12.32	95.20	0.27	14.27
56.40	0.00	8.45	89.40	0.00	10.40	82.40	0.00	12.35	95.40	0.30	14.30
56.60	0.00	8.48	89.60	0.00	10.43	82.60	0.00	12.38	95.60	0.33	14.33
56.80	0.00	8.51	89.80	0.00	10.46	82.80	0.00	12.41	95.80	0.36	14.36
57.00	0.00	8.54	90.00	0.00	10.50	83.00	0.00	12.45	96.00	0.40	14.40
57.20	0.00	8.57	90.20	0.00	10.52	83.20	0.00	12.47	96.20	0.42	14.42
57.40	0.00	8.60	90.40	0.00	10.55	83.40	0.00	12.50	96.40	0.45	14.45
57.60	0.00	8.63	90.60	0.00	10.58	83.60	0.00	12.53	96.60	0.48	14.48
57.80	0.00	8.66	90.80	0.00	10.61	83.80	0.00	12.56	96.80	0.51	14.51
58.00	0.00	8.70	91.00	0.00	10.65	84.00	0.00	12.60	97.00	0.55	14.55
58.20	0.00	8.72	91.20	0.00	10.67	84.20	0.00	12.62	97.20	0.57	14.57
58.40	0.00	8.75	91.40	0.00	10.70	84.40	0.00	12.65	97.40	0.60	14.60
58.60	0.00	8.78	91.60	0.00	10.73	84.60	0.00	12.68	97.60	0.63	14.63
58.80	0.00	8.81	91.80	0.00	10.76	84.80	0.00	12.71	97.80	0.66	14.66
59.00	0.00	8.85	92.00	0.00	10.80	85.00	0.00	12.75	98.00	0.70	14.70
59.20	0.00	8.87	92.20	0.00	10.82	85.20	0.00	12.77	98.20	0.72	14.72
59.40	0.00	8.90	92.40	0.00	10.85	85.40	0.00	12.80	98.40	0.75	14.75
59.60	0.00	8.93	92.60	0.00	10.88	85.60	0.00	12.83	98.60	0.78	14.78
59.80	0.00	8.96	92.80	0.00	10.91	85.80	0.00	12.86	98.80	0.81	14.81
60.00	0.00	9.00	93.00	0.00	10.95	86.00	0.00	12.90	99.00	0.85	14.85
60.20	0.00	9.02	93.20	0.00	10.97	86.20	0.00	12.92	99.20	0.87	14.87
60.40	0.00	9.05	93.40	0.00	11.00	86.40	0.00	12.95	99.40	0.90	14.90
60.60	0.00	9.08	93.60	0.00	11.03	86.60	0.00	12.98	99.60	0.93	14.93
60.80	0.00	9.11	93.80	0.00	11.06	86.80	0.00	13.01	99.80	0.96	14.96
61.00	0.00	9.15	94.00	0.00	11.10	87.00	0.00	13.05	100.00	1.00	15.00
61.20	0.00	9.17	94.20	0.00	11.12	87.20	0.00	13.07	100.20	1.02	15.02
61.40	0.00	9.20	94.40	0.00	11.15	87.40	0.00	13.10	100.40	1.05	15.05
61.60	0.00	9.23	94.60	0.00	11.18	87.60	0.00	13.13	100.60	1.08	15.08
61.80	0.00	9.26	94.80	0.00	11.21	87.80	0.00	13.16	100.80	1.11	15.11
62.00	0.00	9.30	95.00	0.00	11.25	88.00	0.00	13.20	101.00	1.15	15.15
62.20	0.00	9.32	95.20	0.00	11.27	88.20	0.00	13.22	101.20	1.17	15.17
62.40	0.00	9.35	95.40	0.00	11.30	88.40	0.00	13.25	101.40	1.20	15.20
62.60	0.00	9.38	95.60	0.00	11.33	88.60	0.00	13.28	101.60	1.23	15.23
62.80	0.00	9.41	95.80	0.00	11.36	88.80	0.00	13.31	101.80	1.26	15.26
63.00	0.00	9.45	96.00	0.00	11.40	89.00	0.00	13.35	102.00	1.30	15.30
63.20	0.00	9.47	96.20	0.00	11.42	89.20	0.00	13.37	102.20	1.32	15.32
63.40	0.00	9.50	96.40	0.00	11.45	89.40	0.00	13.40	102.40	1.35	15.35
63.60	0.00	9.53	96.60	0.00	11.48	89.60	0.00	13.43	102.60	1.38	15.38
63.80	0.00	9.56	96.80	0.00	11.51	89.80	0.00	13.46	102.80	1.41	15.41
64.00	0.00	9.60	97.00	0.00	11.55	90.00	0.00	13.50	103.00	1.45	15.45
64.20	0.00	9.62	97.20	0.00	11.57	90.20	0.00	13.52	103.20	1.47	15.47
64.40	0.00	9.65	97.40	0.00	11.60	90.40	0.00	13.55	103.40	1.50	15.50
64.60	0.00	9.68	97.60	0.00	11.63	90.60	0.00	13.58	103.60	1.53	15.53
64.80	0.00	9.71	97.80	0.00	11.66	90.80	0.00	13.61	103.80	1.56	15.56
65.00	0.00	9.75	98.00	0.00	11.70	91.00	0.00	13.65	104.00	1.60	15.60

\*NOTE—In calculating weekly earnings, ignore cents in excess and include value of allowances—e.g., board and lodging



APPENDIX A — continued  
Tax Deductions from Payments for Weekly Pay Periods — continued

EARNINGS	TAX USING CODE		EARNINGS	TAX USING CODE		EARNINGS	TAX USING CODE		EARNINGS	TAX USING CODE	
	T	G		T	G		T	G		T	G
104.20	1.82	15.82	117.20	3.57	17.57	130.20	7.56	19.52	143.20	12.11	21.47
104.40	1.85	15.85	117.40	3.60	17.60	130.40	7.63	19.55	143.40	12.18	21.50
104.60	1.88	15.88	117.60	3.63	17.63	130.60	7.70	19.58	143.60	12.25	21.53
104.80	1.91	15.91	117.80	3.66	17.66	130.80	7.77	19.61	143.80	12.32	21.56
106.00	1.75	15.75	118.00	3.70	17.70	132.00	7.85	19.65	146.00	12.40	21.60
106.20	1.77	15.77	118.20	3.72	17.72	132.20	7.91	19.67	146.20	12.46	21.62
106.40	1.80	15.80	118.40	3.75	17.75	132.40	7.96	19.70	146.40	12.53	21.65
106.60	1.83	15.83	118.60	3.78	17.78	132.60	8.05	19.73	146.60	12.59	21.68
106.80	1.86	15.86	118.80	3.81	17.81	132.80	8.12	19.76	146.80	12.67	21.71
106.00	1.90	15.90	119.00	3.85	17.85	133.00	8.20	19.80	146.00	12.74	21.75
106.20	1.92	15.92	119.20	3.87	17.87	133.20	8.26	19.83	146.20	12.81	21.77
106.40	1.95	15.95	119.40	3.90	17.90	133.40	8.33	19.85	146.40	12.88	21.80
106.60	1.98	15.98	119.60	3.93	17.93	133.60	8.40	19.88	146.60	12.95	21.83
106.80	2.01	16.01	119.80	3.96	17.96	133.80	8.47	19.91	146.80	13.02	21.86
107.00	2.05	16.05	120.00	4.00	18.00	133.00	8.55	19.95	146.00	13.10	21.90
107.20	2.07	16.07	120.20	4.08	18.02	133.20	8.61	19.97	146.20	13.16	21.92
107.40	2.10	16.10	120.40	4.13	18.05	133.40	8.68	20.00	146.40	13.23	21.95
107.60	2.13	16.13	120.60	4.20	18.08	133.60	8.75	20.03	146.60	13.30	21.98
107.80	2.16	16.16	120.80	4.27	18.11	133.80	8.82	20.06	146.80	13.37	22.01
108.00	2.20	16.20	121.00	4.35	18.15	134.00	8.90	20.10	147.00	13.45	22.05
108.20	2.22	16.22	121.20	4.41	18.17	134.20	8.96	20.12	147.20	13.51	22.07
108.40	2.25	16.25	121.40	4.48	18.20	134.40	9.03	20.15	147.40	13.58	22.10
108.60	2.28	16.28	121.60	4.55	18.23	134.60	9.10	20.18	147.60	13.65	22.13
108.80	2.31	16.31	121.80	4.62	18.26	134.80	9.17	20.21	147.80	13.72	22.16
109.00	2.35	16.35	122.00	4.70	18.30	135.00	9.25	20.25	148.00	13.80	22.20
109.20	2.37	16.37	122.20	4.78	18.32	135.20	9.31	20.27	148.20	13.86	22.22
109.40	2.40	16.40	122.40	4.83	18.35	135.40	9.38	20.30	148.40	13.93	22.25
109.60	2.43	16.43	122.60	4.90	18.38	135.60	9.45	20.33	148.60	14.00	22.29
109.80	2.46	16.46	122.80	4.97	18.41	135.80	9.52	20.36	148.80	14.07	22.31
110.00	2.50	16.50	123.00	5.05	18.45	136.00	9.60	20.40	149.00	14.15	22.35
110.20	2.52	16.52	123.20	5.11	18.47	136.20	9.66	20.42	149.20	14.21	22.37
110.40	2.55	16.55	123.40	5.18	18.50	136.40	9.73	20.45	149.40	14.28	22.40
110.60	2.58	16.58	123.60	5.25	18.53	136.60	9.80	20.48	149.60	14.35	22.43
110.80	2.61	16.61	123.80	5.32	18.56	136.80	9.87	20.51	149.80	14.42	22.46
111.00	2.65	16.65	124.00	5.40	18.60	137.00	9.95	20.55	150.00	14.50	22.50
111.20	2.67	16.67	124.20	5.46	18.62	137.20	10.01	20.57	150.20	14.56	22.52
111.40	2.70	16.70	124.40	5.53	18.65	137.40	10.08	20.60	150.40	14.63	22.55
111.60	2.73	16.73	124.60	5.60	18.68	137.60	10.15	20.63	150.60	14.70	22.58
111.80	2.76	16.76	124.80	5.67	18.71	137.80	10.22	20.66	150.80	14.77	22.61
112.00	2.80	16.80	125.00	5.75	18.75	138.00	10.30	20.70	151.00	14.85	22.65
112.20	2.82	16.82	125.20	5.81	18.77	138.20	10.36	20.72	151.20	14.91	22.67
112.40	2.85	16.85	125.40	5.88	18.80	138.40	10.43	20.75	151.40	14.98	22.70
112.60	2.88	16.88	125.60	5.95	18.83	138.60	10.50	20.78	151.60	15.05	22.73
112.80	2.91	16.91	125.80	6.02	18.86	138.80	10.57	20.81	151.80	15.12	22.76
113.00	2.95	16.95	126.00	6.10	18.90	139.00	10.65	20.85	152.00	15.20	22.80
113.20	2.97	16.97	126.20	6.16	18.92	139.20	10.71	20.87	152.20	15.26	22.82
113.40	3.00	17.00	126.40	6.23	18.95	139.40	10.78	20.90	152.40	15.33	22.85
113.60	3.03	17.03	126.60	6.30	18.98	139.60	10.85	20.93	152.60	15.40	22.88
113.80	3.06	17.06	126.80	6.37	19.01	139.80	10.92	20.96	152.80	15.47	22.91
114.00	3.10	17.10	127.00	6.45	19.05	140.00	11.00	21.00	153.00	15.55	22.95
114.20	3.12	17.12	127.20	6.51	19.07	140.20	11.06	21.02	153.20	15.61	22.97
114.40	3.15	17.15	127.40	6.58	19.10	140.40	11.13	21.05	153.40	15.68	23.00
114.60	3.18	17.18	127.60	6.65	19.13	140.60	11.20	21.08	153.60	15.75	23.03
114.80	3.21	17.21	127.80	6.72	19.16	140.80	11.27	21.11	153.80	15.82	23.06
115.00	3.25	17.25	128.00	6.80	19.20	141.00	11.35	21.15	154.00	15.90	23.10
115.20	3.27	17.27	128.20	6.86	19.22	141.20	11.41	21.17	154.20	15.96	23.12
115.40	3.30	17.30	128.40	6.93	19.25	141.40	11.48	21.20	154.40	16.03	23.15
115.60	3.33	17.33	128.60	7.00	19.28	141.60	11.55	21.23	154.60	16.10	23.18
115.80	3.36	17.36	128.80	7.07	19.31	141.80	11.62	21.26	154.80	16.17	23.21
116.00	3.40	17.40	129.00	7.15	19.35	142.00	11.70	21.30	155.00	16.25	23.25
116.20	3.42	17.42	129.20	7.21	19.37	142.20	11.76	21.32	155.20	16.31	23.27
116.40	3.45	17.45	129.40	7.28	19.40	142.40	11.83	21.35	155.40	16.38	23.30
116.60	3.48	17.48	129.60	7.35	19.43	142.60	11.90	21.38	155.60	16.45	23.33
116.80	3.51	17.51	129.80	7.42	19.46	142.80	11.97	21.41	155.80	16.52	23.36
117.00	3.55	17.55	130.00	7.50	19.50	143.00	12.05	21.45	156.00	16.60	23.40

NOTE—In calculating weekly earnings, ignore excess and include value of allowances—e.g., board and lodging

APPENDIX A — continued

Tax Deductions from Payments for Weekly Pay Periods — continued

EARNINGS			TAX USING CODE			EARNINGS			TAX USING CODE			EARNINGS			TAX USING CODE		
S	T	G	S	T	G	S	T	G	S	T	G	S	T	G	S	T	G
186.20	18.90	23.42	186.20	21.21	25.37	182.20	25.78	27.32	192.20	29.90	30.90	186.40	18.73	22.45	186.40	21.28	25.40
186.40	18.73	22.45	186.40	21.28	25.40	182.40	25.83	27.35	192.40	29.95	30.95	186.60	18.60	22.48	186.60	21.35	25.43
186.60	18.60	22.48	186.60	21.35	25.43	182.60	25.88	27.38	192.60	29.98	31.01	186.80	18.47	22.51	186.80	21.42	25.46
186.80	18.47	22.51	186.80	21.42	25.46	182.80	25.93	27.41	192.80	29.99	31.07	187.00	18.35	22.54	187.00	21.50	25.50
187.00	18.35	22.54	187.00	21.50	25.50	183.00	25.99	27.48	193.00	29.99	31.13	187.20	18.22	22.57	187.20	21.56	25.52
187.20	18.22	22.57	187.20	21.56	25.52	183.20	26.04	27.54	193.20	29.99	31.18	187.40	18.10	22.60	187.40	21.63	25.55
187.40	18.10	22.60	187.40	21.63	25.55	183.40	26.09	27.59	193.40	29.99	31.23	187.60	17.98	22.63	187.60	21.70	25.58
187.60	17.98	22.63	187.60	21.70	25.58	183.60	26.14	27.65	193.60	29.99	31.29	187.80	17.86	22.66	187.80	21.77	25.61
187.80	17.86	22.66	187.80	21.77	25.61	183.80	26.19	27.71	193.80	29.99	31.35	188.00	17.74	22.69	188.00	21.85	25.65
188.00	17.74	22.69	188.00	21.85	25.65	184.00	26.24	27.77	194.00	29.99	31.41	188.20	17.62	22.72	188.20	21.91	25.67
188.20	17.62	22.72	188.20	21.91	25.67	184.20	26.29	27.82	194.20	29.99	31.46	188.40	17.50	22.75	188.40	21.98	25.70
188.40	17.50	22.75	188.40	21.98	25.70	184.40	26.34	27.87	194.40	29.99	31.51	188.60	17.38	22.78	188.60	22.05	25.73
188.60	17.38	22.78	188.60	22.05	25.73	184.60	26.39	27.93	194.60	29.99	31.57	188.80	17.26	22.81	188.80	22.12	25.76
188.80	17.26	22.81	188.80	22.12	25.76	184.80	26.44	27.98	194.80	29.99	31.63	189.00	17.14	22.84	189.00	22.20	25.79
189.00	17.14	22.84	189.00	22.20	25.79	185.00	26.49	28.05	195.00	29.99	31.69	189.20	17.02	22.87	189.20	22.27	25.82
189.20	17.02	22.87	189.20	22.27	25.82	185.20	26.54	28.11	195.20	29.99	31.74	189.40	16.90	22.90	189.40	22.34	25.85
189.40	16.90	22.90	189.40	22.34	25.85	185.40	26.59	28.17	195.40	29.99	31.79	189.60	16.78	22.93	189.60	22.41	25.88
189.60	16.78	22.93	189.60	22.41	25.88	185.60	26.64	28.23	195.60	29.99	31.85	189.80	16.66	22.96	189.80	22.47	25.91
189.80	16.66	22.96	189.80	22.47	25.91	185.80	26.69	28.29	195.80	29.99	31.91	190.00	16.54	22.99	190.00	22.54	25.95
190.00	16.54	22.99	190.00	22.54	25.95	186.00	26.74	28.35	196.00	29.99	31.97	190.20	16.42	23.02	190.20	22.61	25.98
190.20	16.42	23.02	190.20	22.61	25.98	186.20	26.79	28.41	196.20	29.99	32.02	190.40	16.30	23.05	190.40	22.68	26.02
190.40	16.30	23.05	190.40	22.68	26.02	186.40	26.84	28.47	196.40	29.99	32.07	190.60	16.18	23.08	190.60	22.75	26.05
190.60	16.18	23.08	190.60	22.75	26.05	186.60	26.89	28.53	196.60	29.99	32.13	190.80	16.06	23.11	190.80	22.82	26.09
190.80	16.06	23.11	190.80	22.82	26.09	186.80	26.94	28.59	196.80	29.99	32.19	191.00	15.94	23.14	191.00	22.89	26.13
191.00	15.94	23.14	191.00	22.89	26.13	187.00	27.00	28.65	197.00	29.99	32.25	191.20	15.82	23.17	191.20	22.96	26.17
191.20	15.82	23.17	191.20	22.96	26.17	187.20	27.05	28.71	197.20	29.99	32.30	191.40	15.70	23.20	191.40	23.03	26.21
191.40	15.70	23.20	191.40	23.03	26.21	187.40	27.10	28.77	197.40	29.99	32.35	191.60	15.58	23.23	191.60	23.10	26.25
191.60	15.58	23.23	191.60	23.10	26.25	187.60	27.15	28.83	197.60	29.99	32.41	191.80	15.46	23.26	191.80	23.17	26.29
191.80	15.46	23.26	191.80	23.17	26.29	187.80	27.20	28.89	197.80	29.99	32.47	192.00	15.34	23.29	192.00	23.24	26.33
192.00	15.34	23.29	192.00	23.24	26.33	188.00	27.25	28.95	198.00	29.99	32.53	192.20	15.22	23.32	192.20	23.31	26.37
192.20	15.22	23.32	192.20	23.31	26.37	188.20	27.30	29.01	198.20	29.99	32.59	192.40	15.10	23.35	192.40	23.38	26.41
192.40	15.10	23.35	192.40	23.38	26.41	188.40	27.35	29.07	198.40	29.99	32.65	192.60	14.98	23.38	192.60	23.45	26.45
192.60	14.98	23.38	192.60	23.45	26.45	188.60	27.40	29.13	198.60	29.99	32.71	192.80	14.86	23.41	192.80	23.52	26.49
192.80	14.86	23.41	192.80	23.52	26.49	188.80	27.45	29.19	198.80	29.99	32.77	193.00	14.74	23.44	193.00	23.59	26.53
193.00	14.74	23.44	193.00	23.59	26.53	189.00	27.50	29.25	199.00	29.99	32.83	193.20	14.62	23.47	193.20	23.66	26.57
193.20	14.62	23.47	193.20	23.66	26.57	189.20	27.55	29.31	199.20	29.99	32.89	193.40	14.50	23.50	193.40	23.73	26.61
193.40	14.50	23.50	193.40	23.73	26.61	189.40	27.60	29.37	199.40	29.99	32.95	193.60	14.38	23.53	193.60	23.80	26.65
193.60	14.38	23.53	193.60	23.80	26.65	189.60	27.65	29.43	199.60	29.99	33.01	193.80	14.26	23.56	193.80	23.87	26.69
193.80	14.26	23.56	193.80	23.87	26.69	189.80	27.70	29.49	199.80	29.99	33.07	194.00	14.14	23.59	194.00	23.94	26.73
194.00	14.14	23.59	194.00	23.94	26.73	190.00	27.75	29.55	200.00	29.99	33.13	194.20	14.02	23.62	194.20	24.01	26.77
194.20	14.02	23.62	194.20	24.01	26.77	190.20	27.80	29.61	200.20	29.99	33.19	194.40	13.90	23.65	194.40	24.08	26.81
194.40	13.90	23.65	194.40	24.08	26.81	190.40	27.85	29.67	200.40	29.99	33.25	194.60	13.78	23.68	194.60	24.15	26.85
194.60	13.78	23.68	194.60	24.15	26.85	190.60	27.90	29.73	200.60	29.99	33.31	194.80	13.66	23.71	194.80	24.22	26.89
194.80	13.66	23.71	194.80	24.22	26.89	190.80	27.95	29.79	200.80	29.99	33.37	195.00	13.54	23.74	195.00	24.29	26.93
195.00	13.54	23.74	195.00	24.29	26.93	191.00	28.00	29.85	201.00	29.99	33.43	195.20	13.42	23.77	195.20	24.36	26.97
195.20	13.42	23.77	195.20	24.36	26.97	191.20	28.05	29.91	201.20	29.99	33.49	195.40	13.30	23.80	195.40	24.43	27.01
195.40	13.30	23.80	195.40	24.43	27.01	191.40	28.10	29.97	201.40	29.99	33.55	195.60	13.18	23.83	195.60	24.50	27.05
195.60	13.18	23.83	195.60	24.50	27.05	191.60	28.15	30.03	201.60	29.99	33.61	195.80	13.06	23.86	195.80	24.57	27.09
195.80	13.06	23.86	195.80	24.57	27.09	191.80	28.20	30.09	201.80	29.99	33.67	196.00	12.94	23.89	196.00	24.64	27.13
196.00	12.94	23.89	196.00	24.64	27.13	192.00	28.25	30.15	202.00	29.99	33.73	196.20	12.82	23.92	196.20	24.71	27.17
196.20	12.82	23.92	196.20	24.71	27.17	192.20	28.30	30.21	202.20	29.99	33.79	196.40	12.70	23.95	196.40	24.78	27.21
196.40	12.70	23.95	196.40	24.78	27.21	192.40	28.35	30.27	202.40	29.99	33.85	196.60	12.58	23.98	196.60	24.85	27.25
196.60	12.58	23.98	196.60	24.85	27.25	192.60	28.40	30.33	202.60	29.99	33.91	196.80	12.46	24.01	196.80	24.92	27.29
196.80	12.46	24.01	196.80	24.92	27.29	192.80	28.45	30.39	202.80	29.99	33.97	197.00	12.34	24.04	197.00	24.99	27.33
197.00	12.34	24.04	197.00	24.99	27.33	193.00	28.50	30.45	203.00	29.99	34.03	197.20	12.22	24.07	197.20	25.06	27.37
197.20	12.22	24.07	197.20	25.06	27.37	193.20	28.55	30.51	203.20	29.99	34.09	197.40	12.10	24.10	197.40	25.13	27.41
197.40	12.10	24.10	197.40	25.13	27.41	193.40	28.60	30.57	203.40	29.99	34.15	197.60	11.98	24.13	197.60	25.20	27.45
197.60	11.98	24.13	197.60	25.20	27.45	193.60	28.65	30.63	203.60	29.99	34.21	197.80	11.86	24.16	197.80	25.27	27.49
197.80	11.86	24.16	197.80	25.27	27.49	193.80	28.70	30.69	203.80	29.99	34.27	198.00	11.74	24.19	198.00	25.34	27.53
198.00	11.74	24.19	198.00	25.34	27.53	194.00	28.75	30.75	204.00	29.99	34.33	198.20	11.62	24.22	198.20	25.41	27.57
198.20	11.62	24.22	198.20	25.41	27.57	194.20	28.80	30.81	204.20	29.99	34.39	198.40	11.50	24.25	198.40	25.48	27.61
198.40	11.50	24.25	198.40	25.48	27.61	194.40	28.85	30.87	204.40	29.99	34.45	198.60	11.38	24.28	198.60	25.55	27.65
198.60	11.38	24.28	198.60	25.55	27.65	194.60	28.										

APPENDIX A — continued  
Tax Deductions from Payments for Weekly Pay Periods — continued

EARNINGS	TAX USING CODE			EARNINGS	TAX USING CODE			EARNINGS	TAX USING CODE			EARNINGS	TAX USING CODE		
	T	G	S		T	G	S		T	G	S		T	G	S
208.20	34.54	34.54	221.28	38.18	38.18	38.18	271.98	52.13	52.13	52.13	70.33	70.33	70.33		
208.40	34.59	34.59	221.49	38.23	38.23	38.23	272.06	52.41	52.41	52.41	70.81	70.81	70.81		
208.60	34.65	34.65	221.69	38.29	38.29	38.29	272.20	52.99	52.99	52.99	71.09	71.09	71.09		
208.80	34.71	34.71	221.89	38.35	38.35	38.35	272.36	52.97	52.97	52.97	71.17	71.17	71.17		
209.00	34.77	34.77	222.08	38.41	38.41	38.41	272.50	53.25	53.25	53.25	71.45	71.45	71.45		
209.20	34.82	34.82	222.26	38.46	38.46	38.46	272.66	53.53	53.53	53.53	71.73	71.73	71.73		
209.40	34.87	34.87	222.44	38.51	38.51	38.51	272.79	53.81	53.81	53.81	72.01	72.01	72.01		
209.60	34.93	34.93	222.61	38.57	38.57	38.57	272.99	54.09	54.09	54.09	72.29	72.29	72.29		
209.80	34.99	34.99	222.79	38.63	38.63	38.63	273.16	54.37	54.37	54.37	72.57	72.57	72.57		
210.00	35.05	35.05	222.96	38.68	38.68	38.68	273.33	54.65	54.65	54.65	72.85	72.85	72.85		
210.20	35.10	35.10	223.12	38.74	38.74	38.74	273.50	54.93	54.93	54.93	73.13	73.13	73.13		
210.40	35.15	35.15	223.28	38.79	38.79	38.79	273.69	55.21	55.21	55.21	73.41	73.41	73.41		
210.60	35.21	35.21	223.44	38.85	38.85	38.85	273.86	55.49	55.49	55.49	73.69	73.69	73.69		
210.80	35.27	35.27	223.59	38.91	38.91	38.91	274.04	55.77	55.77	55.77	73.97	73.97	73.97		
211.00	35.33	35.33	223.75	38.97	38.97	38.97	274.22	56.05	56.05	56.05	74.25	74.25	74.25		
211.20	35.38	35.38	223.91	39.02	39.02	39.02	274.40	56.33	56.33	56.33	74.53	74.53	74.53		
211.40	35.43	35.43	224.07	39.07	39.07	39.07	274.59	56.61	56.61	56.61	74.81	74.81	74.81		
211.60	35.48	35.48	224.22	39.13	39.13	39.13	274.78	56.89	56.89	56.89	75.09	75.09	75.09		
211.80	35.55	35.55	224.37	39.18	39.18	39.18	274.97	57.17	57.17	57.17	75.37	75.37	75.37		
212.00	35.61	35.61	224.52	39.25	39.25	39.25	275.16	57.45	57.45	57.45	75.65	75.65	75.65		
212.20	35.66	35.66	224.67	39.31	39.31	39.31	275.35	57.73	57.73	57.73	75.93	75.93	75.93		
212.40	35.71	35.71	224.81	39.37	39.37	39.37	275.54	58.01	58.01	58.01	76.21	76.21	76.21		
212.60	35.76	35.76	224.96	39.43	39.43	39.43	275.73	58.29	58.29	58.29	76.49	76.49	76.49		
212.80	35.82	35.82	225.10	39.49	39.49	39.49	275.92	58.57	58.57	58.57	76.77	76.77	76.77		
213.00	35.89	35.89	225.24	39.55	39.55	39.55	276.11	58.85	58.85	58.85	77.05	77.05	77.05		
213.20	35.94	35.94	225.38	39.61	39.61	39.61	276.30	59.13	59.13	59.13	77.33	77.33	77.33		
213.40	35.99	35.99	225.52	39.67	39.67	39.67	276.49	59.41	59.41	59.41	77.61	77.61	77.61		
213.60	36.05	36.05	225.66	39.73	39.73	39.73	276.68	59.69	59.69	59.69	77.89	77.89	77.89		
213.80	36.11	36.11	225.80	39.79	39.79	39.79	276.87	59.97	59.97	59.97	78.17	78.17	78.17		
214.00	36.17	36.17	225.94	39.85	39.85	39.85	277.06	60.25	60.25	60.25	78.45	78.45	78.45		
214.20	36.22	36.22	226.08	39.91	39.91	39.91	277.25	60.53	60.53	60.53	78.73	78.73	78.73		
214.40	36.27	36.27	226.22	39.97	39.97	39.97	277.44	60.81	60.81	60.81	79.01	79.01	79.01		
214.60	36.33	36.33	226.36	40.03	40.03	40.03	277.63	61.09	61.09	61.09	79.29	79.29	79.29		
214.80	36.39	36.39	226.50	40.09	40.09	40.09	277.82	61.37	61.37	61.37	79.57	79.57	79.57		
215.00	36.44	36.44	226.64	40.15	40.15	40.15	278.01	61.65	61.65	61.65	79.85	79.85	79.85		
215.20	36.50	36.50	226.78	40.21	40.21	40.21	278.20	61.93	61.93	61.93	80.13	80.13	80.13		
215.40	36.55	36.55	226.92	40.27	40.27	40.27	278.39	62.21	62.21	62.21	80.41	80.41	80.41		
215.60	36.61	36.61	227.06	40.33	40.33	40.33	278.58	62.49	62.49	62.49	80.69	80.69	80.69		
215.80	36.67	36.67	227.20	40.39	40.39	40.39	278.77	62.77	62.77	62.77	80.97	80.97	80.97		
216.00	36.73	36.73	227.34	40.45	40.45	40.45	278.96	63.05	63.05	63.05	81.25	81.25	81.25		
216.20	36.78	36.78	227.48	40.51	40.51	40.51	279.15	63.33	63.33	63.33	81.53	81.53	81.53		
216.40	36.83	36.83	227.62	40.57	40.57	40.57	279.34	63.61	63.61	63.61	81.81	81.81	81.81		
216.60	36.89	36.89	227.76	40.63	40.63	40.63	279.53	63.89	63.89	63.89	82.09	82.09	82.09		
216.80	36.95	36.95	227.90	40.69	40.69	40.69	279.72	64.17	64.17	64.17	82.37	82.37	82.37		
217.00	37.01	37.01	228.04	40.75	40.75	40.75	279.91	64.45	64.45	64.45	82.65	82.65	82.65		
217.20	37.06	37.06	228.18	40.81	40.81	40.81	280.10	64.73	64.73	64.73	82.93	82.93	82.93		
217.40	37.11	37.11	228.32	40.87	40.87	40.87	280.29	65.01	65.01	65.01	83.21	83.21	83.21		
217.60	37.17	37.17	228.46	40.93	40.93	40.93	280.48	65.29	65.29	65.29	83.49	83.49	83.49		
217.80	37.23	37.23	228.60	40.99	40.99	40.99	280.67	65.57	65.57	65.57	83.77	83.77	83.77		
218.00	37.29	37.29	228.74	41.05	41.05	41.05	280.86	65.85	65.85	65.85	84.05	84.05	84.05		
218.20	37.34	37.34	228.88	41.11	41.11	41.11	281.05	66.13	66.13	66.13	84.33	84.33	84.33		
218.40	37.39	37.39	229.02	41.17	41.17	41.17	281.24	66.41	66.41	66.41	84.61	84.61	84.61		
218.60	37.45	37.45	229.16	41.23	41.23	41.23	281.43	66.69	66.69	66.69	84.89	84.89	84.89		
218.80	37.51	37.51	229.30	41.29	41.29	41.29	281.62	66.97	66.97	66.97	85.17	85.17	85.17		
219.00	37.57	37.57	229.44	41.35	41.35	41.35	281.81	67.25	67.25	67.25	85.45	85.45	85.45		
219.20	37.62	37.62	229.58	41.41	41.41	41.41	282.00	67.53	67.53	67.53	85.73	85.73	85.73		
219.40	37.67	37.67	229.72	41.47	41.47	41.47	282.19	67.81	67.81	67.81	86.01	86.01	86.01		
219.60	37.73	37.73	229.86	41.53	41.53	41.53	282.38	68.09	68.09	68.09	86.29	86.29	86.29		
219.80	37.79	37.79	229.99	41.59	41.59	41.59	282.57	68.37	68.37	68.37	86.57	86.57	86.57		
220.00	37.86	37.86	230.13	41.65	41.65	41.65	282.76	68.65	68.65	68.65	86.85	86.85	86.85		
220.20	37.90	37.90	230.27	41.71	41.71	41.71	282.95	68.93	68.93	68.93	87.13	87.13	87.13		
220.40	37.95	37.95	230.41	41.77	41.77	41.77	283.14	69.21	69.21	69.21	87.41	87.41	87.41		
220.60	38.01	38.01	230.54	41.83	41.83	41.83	283.33	69.49	69.49	69.49	87.69	87.69	87.69		
220.80	38.07	38.07	230.68	41.89	41.89	41.89	283.52	69.77	69.77	69.77	87.97	87.97	87.97		
221.00	38.13	38.13	230.81	41.95	41.95	41.95	283.71	70.05	70.05	70.05	88.25	88.25	88.25		

\*NOTE—In calculating weekly earnings, ignore cents in excess and include value of allowances—e.g., board and lodging

APPENDIX A — continued

Tax Deductions from Payments for Weekly Pay Periods — continued

EARNINGS	TAX USNG CODE			EARNINGS	TAX USNG CODE			EARNINGS	TAX USNG CODE			EARNINGS	TAX USNG CODE		
	T	G	S		T	G	S		T	G	S		T	G	S
401.00	65.53	68.53	66.00	106.73	106.73	531.00	124.20	124.20	596.00	143.24	143.24	402.00	66.81	69.81	67.00
402.00	66.81	69.81	67.00	107.01	107.01	532.00	125.21	125.21	597.00	143.57	143.57	403.00	68.08	71.08	68.50
403.00	68.08	71.08	68.50	107.29	107.29	533.00	125.49	125.49	598.00	143.90	143.90	404.00	69.37	72.37	69.50
404.00	69.37	72.37	69.50	107.57	107.57	534.00	125.77	125.77	599.00	144.23	144.23	405.00	70.65	73.65	70.50
405.00	70.65	73.65	70.50	107.85	107.85	535.00	125.99	125.99	600.00	144.56	144.56	406.00	71.93	74.93	71.50
406.00	71.93	74.93	71.50	108.13	108.13	536.00	126.33	126.33	601.00	144.89	144.89	407.00	73.21	76.21	72.50
407.00	73.21	76.21	72.50	108.41	108.41	537.00	126.61	126.61	602.00	145.22	145.22	408.00	74.49	77.49	73.50
408.00	74.49	77.49	73.50	108.69	108.69	538.00	126.89	126.89	603.00	145.55	145.55	409.00	75.77	78.77	74.50
409.00	75.77	78.77	74.50	108.97	108.97	539.00	127.17	127.17	604.00	145.88	145.88	410.00	77.05	79.75	75.50
410.00	77.05	79.75	75.50	109.25	109.25	540.00	127.59	127.59	605.00	146.21	146.21	411.00	78.33	81.03	76.50
411.00	78.33	81.03	76.50	109.53	109.53	541.00	127.93	127.93	606.00	146.54	146.54	412.00	79.61	82.31	77.50
412.00	79.61	82.31	77.50	109.81	109.81	542.00	128.01	128.01	607.00	146.87	146.87	413.00	80.89	83.59	78.50
413.00	80.89	83.59	78.50	110.09	110.09	543.00	128.29	128.29	608.00	147.20	147.20	414.00	82.17	84.87	79.50
414.00	82.17	84.87	79.50	110.37	110.37	544.00	128.57	128.57	609.00	147.53	147.53	415.00	83.45	86.15	80.50
415.00	83.45	86.15	80.50	110.65	110.65	545.00	128.95	128.95	610.00	147.86	147.86	416.00	84.73	87.43	81.50
416.00	84.73	87.43	81.50	110.93	110.93	546.00	129.13	129.13	611.00	148.19	148.19	417.00	86.01	88.71	82.50
417.00	86.01	88.71	82.50	111.21	111.21	547.00	129.41	129.41	612.00	148.52	148.52	418.00	87.29	90.00	83.50
418.00	87.29	90.00	83.50	111.49	111.49	548.00	129.69	129.69	613.00	148.85	148.85	419.00	88.57	91.28	84.50
419.00	88.57	91.28	84.50	111.77	111.77	549.00	129.97	129.97	614.00	149.18	149.18	420.00	89.85	92.56	85.50
420.00	89.85	92.56	85.50	112.05	112.05	550.00	130.25	130.25	615.00	149.51	149.51	421.00	91.13	93.84	86.50
421.00	91.13	93.84	86.50	112.33	112.33	551.00	130.53	130.53	616.00	149.84	149.84	422.00	92.41	95.12	87.50
422.00	92.41	95.12	87.50	112.61	112.61	552.00	130.81	130.81	617.00	150.17	150.17	423.00	93.69	96.40	88.50
423.00	93.69	96.40	88.50	112.89	112.89	553.00	131.09	131.09	618.00	150.50	150.50	424.00	94.97	97.68	89.50
424.00	94.97	97.68	89.50	113.17	113.17	554.00	131.37	131.37	619.00	150.83	150.83	425.00	96.25	98.96	90.50
425.00	96.25	98.96	90.50	113.45	113.45	555.00	131.65	131.65	620.00	151.16	151.16	426.00	97.53	100.24	91.50
426.00	97.53	100.24	91.50	113.73	113.73	556.00	131.93	131.93	621.00	151.49	151.49	427.00	98.81	101.52	92.50
427.00	98.81	101.52	92.50	114.01	114.01	557.00	132.21	132.21	622.00	151.82	151.82	428.00	100.09	102.80	93.50
428.00	100.09	102.80	93.50	114.29	114.29	558.00	132.49	132.49	623.00	152.15	152.15	429.00	101.37	104.08	94.50
429.00	101.37	104.08	94.50	114.57	114.57	559.00	132.77	132.77	624.00	152.48	152.48	430.00	102.65	105.36	95.50
430.00	102.65	105.36	95.50	114.85	114.85	560.00	133.05	133.05	625.00	152.81	152.81	431.00	103.93	106.64	96.50
431.00	103.93	106.64	96.50	115.13	115.13	561.00	133.33	133.33	626.00	153.14	153.14	432.00	105.21	107.92	97.50
432.00	105.21	107.92	97.50	115.41	115.41	562.00	133.61	133.61	627.00	153.47	153.47	433.00	106.49	109.20	98.50
433.00	106.49	109.20	98.50	115.69	115.69	563.00	133.89	133.89	628.00	153.80	153.80	434.00	107.77	110.48	99.50
434.00	107.77	110.48	99.50	115.97	115.97	564.00	134.17	134.17	629.00	154.13	154.13	435.00	109.05	111.76	100.50
435.00	109.05	111.76	100.50	116.25	116.25	565.00	134.45	134.45	630.00	154.46	154.46	436.00	110.33	113.04	101.50
436.00	110.33	113.04	101.50	116.53	116.53	566.00	134.73	134.73	631.00	154.79	154.79	437.00	111.61	114.32	102.50
437.00	111.61	114.32	102.50	116.81	116.81	567.00	135.01	135.01	632.00	155.12	155.12	438.00	112.89	115.60	103.50
438.00	112.89	115.60	103.50	117.09	117.09	568.00	135.29	135.29	633.00	155.45	155.45	439.00	114.17	116.88	104.50
439.00	114.17	116.88	104.50	117.37	117.37	569.00	135.57	135.57	634.00	155.78	155.78	440.00	115.45	118.16	105.50
440.00	115.45	118.16	105.50	117.65	117.65	570.00	135.85	135.85	635.00	156.11	156.11	441.00	116.73	119.44	106.50
441.00	116.73	119.44	106.50	117.93	117.93	571.00	136.13	136.13	636.00	156.44	156.44	442.00	118.01	120.72	107.50
442.00	118.01	120.72	107.50	118.21	118.21	572.00	136.41	136.41	637.00	156.77	156.77	443.00	119.29	122.00	108.50
443.00	119.29	122.00	108.50	118.49	118.49	573.00	136.69	136.69	638.00	157.10	157.10	444.00	120.57	123.28	109.50
444.00	120.57	123.28	109.50	118.77	118.77	574.00	136.97	136.97	639.00	157.43	157.43	445.00	121.85	124.56	110.50
445.00	121.85	124.56	110.50	119.05	119.05	575.00	137.25	137.25	640.00	157.76	157.76	446.00	123.13	125.84	111.50
446.00	123.13	125.84	111.50	119.33	119.33	576.00	137.53	137.53	641.00	158.09	158.09	447.00	124.41	127.12	112.50
447.00	124.41	127.12	112.50	119.61	119.61	577.00	137.81	137.81	642.00	158.42	158.42	448.00	125.69	128.40	113.50
448.00	125.69	128.40	113.50	119.89	119.89	578.00	138.09	138.09	643.00	158.75	158.75	449.00	126.97	129.68	114.50
449.00	126.97	129.68	114.50	120.17	120.17	579.00	138.37	138.37	644.00	159.08	159.08	450.00	128.25	130.96	115.50
450.00	128.25	130.96	115.50	120.45	120.45	580.00	138.65	138.65	645.00	159.41	159.41	451.00	129.53	132.24	116.50
451.00	129.53	132.24	116.50	120.73	120.73	581.00	138.93	138.93	646.00	159.74	159.74	452.00	130.81	133.52	117.50
452.00	130.81	133.52	117.50	121.01	121.01	582.00	139.21	139.21	647.00	160.07	160.07	453.00	132.09	134.80	118.50
453.00	132.09	134.80	118.50	121.29	121.29	583.00	139.49	139.49	648.00	160.40	160.40	454.00	133.37	136.08	119.50
454.00	133.37	136.08	119.50	121.57	121.57	584.00	139.77	139.77	649.00	160.73	160.73	455.00	134.65	137.36	120.50
455.00	134.65	137.36	120.50	121.85	121.85	585.00	140.05	140.05	650.00	161.06	161.06	456.00	135.93	138.64	121.50
456.00	135.93	138.64	121.50	122.13	122.13	586.00	140.33	140.33	651.00	161.39	161.39	457.00	137.21	139.92	122.50
457.00	137.21	139.92	122.50	122.41	122.41	587.00	140.61	140.61	652.00	161.72	161.72	458.00	138.49	141.20	123.50
458.00	138.49	141.20	123.50	122.69	122.69	588.00	140.89	140.89	653.00	162.05	162.05	459.00	139.77	142.48	124.50
459.00	139.77	142.48	124.50	122.97	122.97	589.00	141.17	141.17	654.00	162.38	162.38	460.00	141.05	143.76	125.50
460.00	141.05	143.76	125.50	123.25	123.25	590.00	141.45	141.45	655.00	162.71	162.71	461.00	142.33	145.04	126.50
461.00	142.33	145.04	126.50	123.53	123.53	591.00	141.73	141.73	656.00	163.04	163.04	462.00	14		

APPENDIX A — continued  
Tax Deductions from Payments for Weekly Pay Periods — continued

*EARNINGS	TAX USING CODE		*EARNINGS	TAX USING CODE		*EARNINGS	TAX USING CODE		*EARNINGS	TAX USING CODE	
	T	G		T	G		T	G		T	G
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
641.00	164.89	164.89	671.00	167.99	167.99	681.00	171.29	171.29	691.00	174.59	174.59
662.00	166.02	166.02	672.00	168.32	168.32	682.00	171.62	171.62	692.00	174.92	174.92
663.00	166.36	166.36	673.00	168.63	168.63	683.00	171.93	171.93	693.00	175.23	175.23
664.00	166.68	166.68	674.00	168.96	168.96	684.00	172.28	172.28	694.00	175.58	175.58
665.00	167.01	167.01	675.00	169.31	169.31	685.00	172.61	172.61	695.00	175.91	175.91
666.00	167.34	167.34	676.00	169.64	169.64	686.00	172.94	172.94	696.00	176.24	176.24
667.00	167.67	167.67	677.00	169.97	169.97	687.00	173.27	173.27	697.00	176.57	176.57
668.00	168.00	168.00	678.00	170.30	170.30	688.00	173.60	173.60	698.00	176.90	176.90
669.00	168.33	168.33	679.00	170.63	170.63	689.00	173.93	173.93	699.00	177.23	177.23
670.00	168.66	168.66	680.00	170.96	170.96	690.00	174.26	174.26	700.00	177.56	177.56

\*NOTE—In calculating weekly earnings, ignore cents in excess and include value of allowances—e.g., board and lodging

History

Appendix A substituted by No 123 of 1988, s 26(4), with application to tax deductions from payments of salary and wages for every pay period ending on or after 1 October 1988.

Appendix A substituted by No 7 of 1986, s 16(4), with application to tax deductions from payments of salary or wages for every pay period ending on or after 1 October 1986.

[The next page is 60,501]

**SECTION 5**

**ESTATE AND GIFT DUTIES**

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## 5.1 INTRODUCTION

Both estate duty and gift duty are levied under the Estate and Gift Duties Act 1968 as amended. Both are administered by the Inland Revenue Department. The legal requirements and the rates of duty have remained relatively unchanged since 1984.

## 5.2 ESTATE DUTY

### 5.2.1 Introduction

In broad terms, estate duty is a tax on the total value of property that was owned by a person who has died and that passes from one person to another because of that death.

The final balance of the estate is calculated as:

	Estate Assets
plus	Notional Estate
less	<u>Exempt Assets</u>
	Dutiable Estate
less	Allowable Debts
less	Matrimonial Home Allowance
less	<u>Charitable Allowance</u>
	 FINAL BALANCE
	=====

Estate Duty is calculated as:

	Estate Duty (on final balance)
less	<u>Reliefs</u>
	 NET DUTY
	=====

### 5.2.2 Property Liabile to Estate Duty

1. All property situated in New Zealand. (Property is used in the widest sense to cover all assets including land, cash, proceeds of life insurance policies, etc.)
2. All property outside New Zealand if the deceased was domiciled in New Zealand at the date of death. A credit is allowed in respect of estate duty paid overseas.
3. "Notional Estate", being:
  - (i) **Dutiable gifts** (i.e. gifts which are or may be liable to gift duty) made within 3 years of death. Gifts which are exempt from gift duty are also exempt from estate duty - refer section 5.3.3. Disposition of matrimonial property may also be exempt from gift duty - refer Section 5.3.4.
  - (ii) **Gifts made before death** where the donor has reserved an interest for his/her lifetime (i.e. gifts with strings attached).



- (iii) **Property disposed of before death** where a benefit passes back to the estate upon his death.
- (iv) **The deceased's share or interest in any property held jointly**, other than a joint family home.
- (v) **Where all or part of the deceased's interest in a policy of life insurance on his/her life has been disposed of to a relative** by the deceased within 3 years of death, a proportion of the gross benefits payable at death is included in the dutiable estate. This provision does not apply to a genuine disposition for full consideration to non-relatives.

The value to be included in the dutiable estate is calculated according to the following formula:

$$\frac{\text{Premiums up to disposition}}{\text{Total Premiums to death}} \times \text{Gross Proceeds} \times \text{Proportion of interest disposed of}$$

Allowance is then made for any consideration paid to the deceased when the policy was assigned.

Example:

Policy taken out by deceased in 1979. Annual premium \$200. Assigned by way of sale to his wife in 1987 for the surrender value of \$2,000. Deceased died in 1989, and the policy realised \$5,500.

Amount to be included in the dutiable estate is:

<u>Premiums to date of assignment</u>		x			
Total premiums during term			Proceeds		
=	$\frac{(8 \times \$200)}{(10 \times \$200)}$		x	5,500	= \$4,400
less consideration paid on assignment					<u>2,000</u>
Amount to be included					<u>2,400</u>

If the deceased has continued to pay the premiums after assignment, then the annual premiums so paid would be treated as gifts within three years of death and included in the notional estate - see (i) above.

- (vi) **The value of any pensions payable to a survivor on the death of the deceased.**

### **5.2.3 Forgiveness of Debt**

The forgiving of a debt due to a deceased person 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.

Where the forgiving of a debt is by will prior to 1 October 1987 or is based upon 'natural love and affection' (ie a family estate planning arrangement) no income tax liability will result. All other debt forgiveness (made since 1 October 1987) is subject to income tax.

### **5.2.4 Exemptions**

1. Non-dutiable gifts (see Section 5.3.3)
  - Small gifts not exceeding \$2000 to the same beneficiary per calendar year.
  - Maintenance or education of the family.
  - Gifts to charities.
  - Certain superannuation elections and/or payments by employers.
2. The first \$2,000 p.a. of any pension or annuity payable to the surviving spouse of the deceased from a group superannuation scheme.
3. The total of any such annuity payable to a child of the deceased until the child attains the age of twenty years.
4. Accrued War Pensions and Social Security benefits.
5. Personal chattels.
  - The total value of personal chattels which pass to the surviving spouse.
  - Up to \$6,000 for personal chattels which pass to other beneficiaries.
6. The deceased's share of a residence registered as a joint family home. (Applies to the estate of the first spouse to die.)

### **5.2.5 Allowable Debts**

Debts which are owing by the deceased at the time of death may be deducted from the estate. It does not matter whether the debt was incurred in New Zealand, or overseas.

Reasonable funeral expenses and income tax on income to date-of-death are regarded as allowable debts. However, no allowance should be made for any expenses of administering the estate or remuneration of the executor(s).

The amount of any debt owing under any mortgage, charge, or other encumbrance over a joint family home is not an allowable debt.

### **5.2.6 Matrimonial Home Allowance**

In the case of a matrimonial home, an allowance is made in respect of the value of the family residence (i.e. the matrimonial home), or other property to the equivalent value of the home if the home does not pass to the surviving spouse. The allowance is restricted to one home only, and does not apply to a joint family home.

#### **Value of the Allowance:**

The value of the home where the matrimonial home passes to the surviving spouse; or where property other than the matrimonial home passes to the surviving spouse, the allowance is the lesser of:

- the value of the matrimonial home; or
- the value of the other property passing.

**NOTE:** All debts incurred in order to purchase the matrimonial home or equivalent property, irrespective of whether or not they are secured over that home or property will reduce the value of the matrimonial home allowance.

### **5.2.7 Charitable Allowance**

Allowance is given for bequests made to charitable organisations.

The charitable allowance is the lesser of:

- The sum of all charitable successions, or
- \$25,000.

### **5.2.8 Valuation of Estate**

All property included in the dutiable estate will be valued as at the date of death, except that gifts will be valued as at the date of gift. In general, the same principles apply to valuations for both estate duty and gift duty purposes. (Refer to section 5.3.2 - Valuation of Gift).

The value of land and buildings is determined by a special Government valuation, and specifically excludes the timber value of any growing trees. All other property should be valued by persons competent to value the assets concerned. However, it is not necessary to value personal chattels where they are exempt from duty. (Refer section 5.2.4.).

Special provisions apply regarding the valuation of annuities, pensions etc. for estate duty purposes, and care should be exercised in assessing such values. Calculation is necessary to establish the value of pensions etc. and reference must be made to the tables contained in the Second Schedule to the Estate and Gift Duty Act. There are four tables in all, and these refer to life expectancies for males and females, expectancy of widowhood for females of various ages, and financial factors for specific time periods. These are reproduced as Tables A,B,C, and D, respectively (Section 5.4.3). Reference should be made to the Valuation of Succession (section 5.2.9) and to the Example of Estate Duty Assessment (section 5.2.13).

### **5.2.9 Valuation of Successions**

The whole of the estate is divided into various successions (i.e. inheritances) as at the date of death, and each succession, whether it be property, an annuity, or some other future interest, must be valued. The general rules of valuation are outlined in section 5.2.8 (above). In

calculating the value of each succession no deduction should be made for administration expenses, the administrators' commission or remuneration, the estate duty payable, or any mortgage or encumbrance where the beneficiary has a right to be reimbursed in respect of such charge. Also, it should be noted that where a matrimonial home allowance has been made, the succession of the surviving spouse is reduced by the amount of that allowance.

**Valuation of Annuities, Life Interests, etc.**

Where an annuity or some other form of future interest is involved, the value of each inheritance is calculated using the tables in Section 5.4.3 and the total estate then apportioned between the beneficiaries. Thus if a widow is to receive an annuity for the rest of her life, the value of that annuity is calculated (based on her life expectancy), and this value is the widow's succession; the balance goes to the remainderman. The combined total of the two equals the value of the estate.

An annuity is a fixed sum of money payable each year for a number of years or for life. An annuity may commence as at date of death, or some time thereafter, such as after a certain number of years or upon the happening of some specific event.

Example:

Son aged 45 is left an annuity of \$2,000 for life.

Value of his succession would be calculated as:

Present value of \$1 per annum for life of a male aged 45 (from Table A) is \$14.92971.

Present value of \$2,000 pa	= \$2,000 x 14.92971
	= \$29,859

A life interest is the right to receive the income for life from a certain fund or specified assets, or to have the use of an asset for life. The successor entitled to this is the life tenant.

Example:

Mr X died on 18 November 1989 leaving a final balance of \$100,000. Under his will his widow (age 63) receives income for life and on her death estate assets pass to surviving children.

**Successions:**

Widow: Present value of income on capital of \$1 for life of a female aged 63 (from Table B) is \$0.54800.

Present value of income on \$100,000 is	\$54,800
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Remainderman: Present value of interest	<u>\$45,200</u>
	<u>\$100,000</u>

Interests may terminate otherwise than on death. Common examples would include:

- Income from residue of estate during her widowhood. Table C should be used.
- Income from estate's farming activities to widow until the youngest child attains the age of 21. Table D should be used.
- Annuity of \$1,040 to son until he attains age of 25. Table D should be used.

Life interests under an estate must be valued in accordance with the deceased's entitlement as set out in the provisions of the will of the head estate. Where the entitlement of the life tenant is not ascertainable from that will, any unpaid income plus any surplus livestock at standard values should be added to the estate of the life tenant at his or her death.

**5.2.10 Calculation of Estate Duty**

Estate duty is assessed on the final balance of the estate at the rate set out in Section 5.4.1. The allowable reliefs are then deducted in order to obtain the actual estate duty payable.

**5.2.11 Reliefs**

Reliefs are deducted from the estate duty assessed, where applicable. Available reliefs include the following:

**Relief from Successive Estate Duties (i.e. Quick Succession)**

If the estate of a deceased person includes property which was inherited within 5 years of death, relief from duty may be given in the second estate in order to reduce the effect of a double impact of estate duty.

The reduction is applied to the lesser of the duty payable on the particular property in the first and second estates. The reduction is graduated according to the period which has passed between the two dates of death, as shown in the following table.

Period between Death of Successor and Predecessor	Duty Reduced by
0 - 4 months	75%
4 - 8 months	60%
8 - 12 months	50%
1 - 2 years	40%
2 - 3 years	30%
3 - 4 years	20%
4 - 5 years	10%

**Relief for Gift Duty Paid**

Where gifts have been included in the notional estate, the gift duty paid plus interest at 3% p.a. from the date the gift duty was paid to the date of death, will be refunded to the person who paid it. If the donor (i.e. the deceased) paid the gift duty, the amount of gift duty refunded (excluding any interest) is included in his dutiable estate. The total refund under these circumstances is first applied towards the payment of any estate duty and then any excess is refunded to the administrator of the deceased donor's estate.

**5.2.12 Assessment and Collection**

The administrator must file an Administrators' Statement together with various supporting forms within six months after the grant of administration. The forms prescribed for filing are available from the Inland Revenue Department.

An assessment is issued immediately after the accounts are filed, but this assessment may be amended as a result of the Department's examination or from further information received.

After any queries have been satisfied, the Department then certifies the final balance and that duty is, or is not, payable.

Once this notice of assessment has been issued, any estate duty payable should be paid within three months after which a penalty of 5% of the unpaid duty is imposed.

Interest at 5% p.a. is charged on the amount of duty unpaid after six months from the date of death. Interest at 5% p.a. is also charged on any unpaid penalty on estate duty calculated from the date the penalty became payable.

### **5.2.13 Example of Estate Duty Assessment**

Mr Green died on 30 October 1989 and his estate included the following property (at market value):

Matrimonial home	\$ 165,000
Investments	84,000
Personal chattels	7,000
Cash at Bank.	3,250
Interest accrued at Bank	50
Car and boat	30,000
Mortgage over son's farm	220,000
Interest accrued on mortgage	2,000

His liabilities were:

Mortgage over matrimonial home	15,000
Accounts payable	1,300
Income tax assessed to date of death	1,400
Funeral expenses	1,200

In May 1966, Green took out a policy of life assurance which has annual premiums of \$300. In June 1986 he sold a half interest in the policy to his wife for \$7,000 which was half the then surrender value. Green continued to pay the premium until his death. The gross proceeds of this policy at death were \$20,000. Green also had a second insurance policy which had a death cover of \$100,000.

Green had also contributed to a superannuation scheme which, on his death, would provide his widow with \$5,000 per annum for the remainder of her life.

In addition, Green had forgiven debts to his son as follows:

1 January 1988	\$30,000	1 January 1989	\$30,000
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Gift duty of \$150 and \$150 respectively, had been paid by Green's son. (Refer to section 5.3.5, Calculation of Gift Duty.)

In his will, Green made the following bequests:

To son John, aged 25, debt forgiven	\$50,000
To daughter Sue, aged 19, cash	\$80,000
To St John Ambulance Association	\$ 5,000
To wife Alice, aged 65 - the residue of the estate.	

The final balance on which duty would be assessed is calculated as follows:

<u>Estate Assets:</u>	\$		\$
Matrimonial home	165,000		
Investments	84,000		
Personal chattels	7,000	(1)	
Bank - cash plus accrued interest	3,300		
Car and boat	30,000		
Mortgage and accrued interest	222,000		
Proceeds of insurance policy			
- no. 1	10,000	(2)	
- no. 2	<u>100,000</u>		
			621,000
 <u>plus Notional Estate:</u>			
Dutiable gifts to son	60,000	(3)	
Interest in life policy disposed of	1,696	(4)	
Superannuation payable to widow	<u>30,908</u>	(5)	
			<u>92,604</u>
			713,604
 <u>less Exempt Assets:</u>			
Personal chattels to widow		(1)	<u>7,000</u>
			706,604
 <u>less Allowable Debts:</u>			
Mortgage over home	15,000		
Accounts payable	1,300		
Income tax	1,400		
Funeral expenses	<u>1,200</u>		
	<u>18,900</u>		
 <u>Matrimonial Home Allowance</u>			
Matrimonial Home	165,000		
less Mortgage	<u>15,000</u>		
			150,000

<u>Charitable Allowance</u>		
Value of bequest	<u>5,000</u>	<u>173,900</u>
FINAL BALANCE		\$532,704
		=====
<u>Value of Successions:</u>		
Final balance of estate		\$532,704
Matrimonial Home Allowance		150,000
Charitable Allowance		<u>5,000</u>
Net Value of the Estate		\$687,704
		=====
<u>Successions:</u>		
Son (John)		
Gifts	60,000 (3)	
Bequest	<u>50,000</u>	110,000
Daughter (Sue)		
Bequest		80,000
St John Ambulance Association		5,000
Widow (Mrs Alice Green) - residue of the estate		<u>492,704</u>
Net Value of the Estate		\$687,704

ESTATE DUTY CALCULATION:

Estate duty on final balance (see Section 5.4.1)		\$33,081.60
less <u>Reliefs:</u>		
Credit for gift duty paid: (6)		
Gift 1 Jan 1987:	150.00	
Interest ( 3% pa for 667 days)	8.22	
Gift 1 Jan 1988:	150.00	
Interest ( 3% pa for 302 days)	<u>3.72</u>	
		<u>311.94</u>
<u>NET ESTATE DUTY PAYABLE</u>		\$32769.66
		=====



NOTES:

1. The value of personal chattels passing to the widow is totally exempt from estate duty. Thus the \$7,000 could be omitted from the calculation.
2. Green had sold a half interest in the insurance policy to his wife in 1986, so only half the proceeds belong to the estate.
3. Only dutiable gifts made within 3 years of death are included.
4. Green's interest in the life policy is calculated as:

$$\frac{20 \times 300}{23 \times 300} \times 50\% \text{ of } \$20,000 = \$8,696$$

less consideration received	<u>7,000</u>
Amount included as notional estate	<u>\$1,696</u>

5. The value is calculated as:

Superannuation to widow	\$5,000 p.a.
less exemption	<u>2,000 p.a.</u>
Dutiable	<u>\$3,000 p.a.</u>

Life expectancy for a female aged 65 is 14.84 years, and the present value of \$1 p.a. for her life is \$10.3027 (from Table B). The value of the superannuation is therefore calculated as:

$$\$3,000 \times 10.3027 = \$30,908.$$

6. The gift duty paid is not included in the notional estate as it was paid by the son. The estate, however, does receive a credit for the gift duty paid to be offset against the estate duty payable. Similarly the interest due by the Crown on the gift duty paid, although strictly payable to the son, will be offset against the estate duty payable. The estate should account to the son, John, for these amounts.

## **5.3 GIFT DUTY**

### **5.3.1 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.

### **5.3.2 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.

#### **Date of Valuation**

A gift (and any consideration) is valued as at the date the gift is made, which is taken to mean the date at which the donor has put himself in the position where the gift cannot be revoked (i.e. the gift is complete).

The completion dates of some of the more common forms of gift are illustrated in the following chart:

<b>Description of Gift</b>	<b>When Complete</b>
Cash	On delivery to the beneficiary.
Cheques	When the cheque has been cashed. (Until then it can be revoked.)
Land	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.
Release and forgiveness of debt	Normally the execution of a legally effective deed of release or forgiveness will be required.

NOTE: The forgiving of a debt can, in some circumstances, be assessed for income tax in the hands of the person who owes the debt. Refer to Section 5.2.3.

### **5.3.3 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.

### **5.3.4 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 made by Court Order under Section 25 of the Matrimonial Property Act 1976 are totally exempt.

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 1988 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.

**5.3.5 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 5.4.2

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.

### 5.3.6 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 1988.

Gift to B of \$15,000 made on 31 July 1989.

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 1989, 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 1988 - duty of \$150 paid.

Gift to D of \$15,000 made on 1 January 1989.

These gifts would be aggregated and duty of \$1,350 on the sum of \$45,000 would be payable, less the \$150 already paid.

### 5.3.7 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 5.3.4.

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.

**5.3.8 Example of Gift Duty Assessment:**

Gift made to D on 14 August 1988 of \$22,000

Gift made to E on 18 November 1988 of \$22,000

Gift made to F on 31 October 1989 of \$35,000

Duty assessment is as follows:

14 August 1988

Gift duty payable on gift of \$22,000 to D is zero. (refer to section 5.4.2).

18 November 1988

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 1989

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				\$ 625.00
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>

## 5.4 ESTATE AND GIFT DUTY APPENDICES

### 5.4.1 Rates of Estate Duty

#### PERSONS DYING ON OR AFTER 1 APRIL 1984

<u>Final Balance</u>	<u>Rate of Duty</u>
Up to \$450,000	Nil
Over \$450,000	40% of excess over \$450,000

### 5.4.2 Rates of Gift Duty

#### GIFTS MADE ON OR AFTER 1 APRIL 1984

<u>Value of Dutiable Gifts Made Within 12 months</u>	<u>Amount and Rate of Duty</u>	
\$1 - \$27,000		Nil
\$27,001 - \$36,000	\$0 plus	5% of excess over \$27,000
\$36,001 - \$54,000	\$450 plus	10% of excess over \$36,000
\$54,001 - \$72,000	\$2,250 plus	20% of excess over \$54,000
Over \$72,000	\$5,850 plus	25% of excess over \$72,000

**5.4.3 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

Section 5.4.3 continued

**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
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

Table B continued

	Years	\$	\$	\$
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 Termin- ation of Widowhood	Present Value of Income on Capital of \$1 for Widowhood
Years		\$	\$	\$
Up to 20	7.5	6.12479	0.69376	0.30624
21	8.2	6.59213	0.67039	0.32961
22	8.9	7.04336	0.64783	0.35217
23	9.8	7.59895	0.62005	0.37995
24	10.7	8.13101	0.59344	0.40656
25	11.5	8.58483	0.57076	0.42924
26	12.2	8.96931	0.55153	0.44847
27	12.8	9.28751	0.53562	0.46438
28	13.3	9.54509	0.52275	0.47725
29	13.7	9.74712	0.51264	0.48736
30	14.1	9.94674	0.50266	0.49734
31	14.4	10.09104	0.49545	0.50455
32	14.9	10.33156	0.48342	0.51658
33	15.3	10.51709	0.47415	0.52585
34	15.8	10.74614	0.46269	0.53731
35	16.3	10.96866	0.45157	0.54843
36	16.9	11.23044	0.43848	0.56152
37	17.6	11.52338	0.42383	0.57617
38	18.2	11.76874	0.41156	0.58844
39	18.8	12.00617	0.39969	0.60031
40	19.5	12.27376	0.38631	0.61369
41	20.3	12.56989	0.37151	0.62849
42	20.9	12.78526	0.36074	0.63926
43	21.4	12.95789	0.35211	0.64789
44	21.8	13.09463	0.34527	0.65473

Table C continued

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		\$	\$	\$
45	22.0	13.16300	0.34185	0.65815
46	22.1	13.19556	0.34022	0.65978
47	22.2	13.22811	0.33859	0.66141
48	22.2	13.22811	0.33859	0.66141
49	22.1	13.19556	0.34022	0.65978
50	22.0	13.16300	0.34185	0.65815
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



Table D continued

	\$	\$	\$
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

## **SECTION 6**

## **ACKNOWLEDGEMENTS**



## ACKNOWLEDGEMENTS

Every attempt has been made to include in this section, all firms and organisations which have contributed to the 1990 Financial Budget Manual. We apologise to any who have been inadvertently left out.

Aabbas Bros. Ltd.  
Ace Product.  
AFFCo.  
Ag-Equipment Specialists Ltd.  
Agmax Industries Ltd.  
Agpac Plastics Ltd.  
Agrifax.  
Agrifeeds Ltd.  
Ahead Farm Buildings.  
AIC International Ltd.  
Aitchison Industries.  
Air New Zealand.  
Airborne Honey Ltd.  
Ajax-Southern Cross.  
Allflex International.  
Amuri Motors.  
Analytical Services Ltd.  
Ancare Distributors Ltd.  
Appletons Tree Nursery.  
Ashley Wool and Sack Ltd.  
Athco Industries Ltd.  
B.P. Oil NZ Ltd.  
Bank of New Zealand.  
Barson Computers Ltd.  
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BP N.Z. Ltd.  
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C.B. Norwood Distributors Ltd.  
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Canterbury Regional Council.  
Canterbury Sale Yard Co. Ltd.  
C & F Industries.  
Cement Products Ltd.  
Central Equipment Co. Ltd.  
Challenge Seeds Ltd.  
Chamberlain John Deere Pty Ltd.  
Christchurch City Council.  
Christchurch Road Transport Assn.  
Combined Rural Traders.  
Computerland Christchurch.  
Coolpak Prebbleton Ltd.  
Croplands Equipment Ltd.  
Daihatsu N.Z. Ltd.  
Dan Cosgrove Ltd.  
Deosan.  
Department of Statistics.  
Design Electronics.  
Domett's Lime Co. Ltd.  
Donaghys Industries Ltd.  
Dosatron Marketing.  
Du Pont New Zealand Ltd.  
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Dynex Extrusions Ltd.  
ECOLAB.  
Elders Pastoral Ltd.  
Engineering Dynamics Ltd.  
Eric Wood Suzuki Ltd.  
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Farm Equipment Co. Ltd.  
Farmlands Grain N.Z. Society Ltd.  
Farmrite Industries Ltd.  
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Hawker Engineering Ltd.  
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Horowhenua County Council.  
Horticultural News.  
Hortlink Marketing Ltd.  
Howard Rotavators Co Ltd.  
Hubbards Machinery Ltd.  
Hume Industries N.Z. Ltd.  
Humes S.I. Region.  
Hydes Distributor Ltd.  
Inland Revenue Department, ChCh.  
Ivon Watkin-Dow Ltd.  
J.I. Case (Australia) Pty. Ltd.  
Jolly Windmill Co. Ltd.  
Kauri Creek Orchard & Nursery.  
Kellogg Farm Management Unit, Lincoln  
University.  
Kinvigs Nurseries.  
Klough Industries Ltd.  
Kumeu Kiwifruit Nurseries.  
Lincoln Electric Co. N.Z. Ltd.  
Lincoln University Farm Advisory Service.  
Lincoln Veterinary Clinic.  
Lister-Petter N.Z. Ltd.  
M.J. McKendry.  
MacEwans Machinery Engineering.  
M.A.F. Corp.  
M.A.F. Qual.  
M.A.F. Tech.  
Mainland Minerals.  
Manawatu District Council.  
Manawatu Electric Power Board.  
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McDonald's Lime Ltd.  
McMillan Water Wells Ltd.  
McVicar Timber Group Ltd.  
Mico Wakefield Co. Ltd.  
Milfos International Ltd.  
Millichamp & Sons Ltd.  
Ministry of Energy.

Moller Yamaha.  
Mr R. Giles.  
Natumix Fertiliser.  
New Zealand Insurance.  
Nissan New Zealand Ltd.  
Norjo Motors Ltd.  
NRM Feeds Ltd.  
N.Z. Berryfruit Association.  
N.Z. Brickmakers Ltd.  
N.Z. Contractors Fed. Inc.  
N.Z. Couriers Ltd.  
N.Z. Dairy Board.  
N.Z. Dairy Board Livestock Improvement  
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N.Z. Farmer.  
N.Z. Fruitgrowers Federation Inc.  
N.Z. Kiwifruit Marketing Authority.  
N.Z. Labourers Union.  
N.Z. Meat & Wool Boards Economic  
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N.Z. Meat Producers Board.  
N.Z. Mohair/Cashmere Warehouse  
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N.Z. Motor Corporation Ltd.  
N.Z. Post.  
N.Z. Vegetable and Potato Growers  
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N.Z. Wool Board.  
Onga (N.Z.) Ltd.  
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P & T Holdings Ltd.  
Palmerston North City Council.  
Pattullo's Nurseries.  
P.D.Q. Products (NZ) Ltd.  
Permathene Plastics Ltd.  
Peta Enterprises.  
P.I.B.A.  
Power Equipment.  
Power Farming Wholesale Ltd.  
Prebble Seeds Ltd.  
Professional Veterinary Distributors Ltd.  
Profile Buildings Ltd.  
Pyne Gould Guinness Ltd.  
Quinn-Baleboys Ltd.  
R.A. Shearing Contractor Ltd.  
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Transport Secretariat Ltd.  
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Tulloch Farm Machines Ltd.  
Tunnel World.  
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Watties Canneries Ltd., Fielding.  
Watties Frozen Foods Ltd., ChCh.  
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Wesco Farm Products.  
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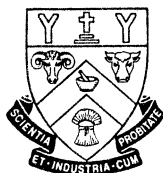
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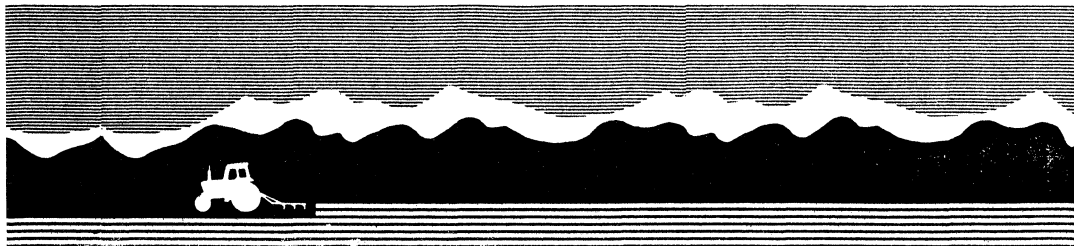
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