

# Financial Budget Manual

1988

LINCOLN COLLEGE



# FINANCIAL BUDGET MANUAL 1988

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## PREFACE

The "Financial Budget Manual 1988" continues the series of Budget Manuals published by Lincoln College. This Manual contains a wealth of up to date information relating to the agricultural and horticultural industries of New Zealand. It is an invaluable reference book for farmers and growers, consultants and students. The Manual contains information on farm (and orchard) costs and prices, on the profitability of different farming enterprises, income taxation, and on estate and gift duties. To the Editors' knowledge, the 1988 Financial Budget Manual is the only publication of its type in New Zealand.

The information contained in the manual is that ruling on or about 1 January 1988. 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. 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 College is intended, nor is any criticism implied of any product which does not appear in the Manual. It should also be noted that prices are quoted exclusive of GST unless stated otherwise.

Please note that each of the five sections is paged individually, for example page 2-180 refers to the 180th page of Section 2.

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 Peter Elliott for his efforts in gathering and collating information, and preparation of the manuscript.

For readers' information, the College also produces a companion volume to the Financial Budget Manual - the Technical Budget Manual, which contains a vast range of information on all technical and husbandry matters relating to livestock, pastures, crops (including vegetables and fruit), soils and fertilisers, pests, machinery and many more.

The Editors would welcome any suggestions from readers for the improvement of the Manual.

M.B. Clark  
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EDITORS

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**SECTION 1**

**FARM REVENUE**



## 1.1 SHEEP

### 1.1.1 Lamb Export Meat Schedule

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 to farmers by various Works for export lambs for the week beginning December 7 1987. This type of information is usually available, in an updated form, each week.

Weight	Grade	Richmond \$	Fortex \$	PPCS/CFM \$	Alliance \$	Challenge \$
6.5	B		17.53	15.21		
7.5	B		20.33	17.76		
8.0	A	9.51	9.69	11.25	13.59	7.50
9.0	A	9.56	10.52	12.41	14.74	7.50
9.5	YL	11.11	14.44	13.46	15.03	17.20
9.5	PL	11.11	14.91	12.89	14.94	17.20
11.0	YL	11.42	15.68	15.28	16.71	18.10
11.0	PL	11.42	16.23	14.62	16.60	18.10
11.0	TL	9.77	8.33	8.56	10.55	11.94
13.0	PL	11.84	17.99	16.92	18.82	19.30
13.5	YM	19.10	21.81	19.48	21.94	25.00
13.5	PM	18.69	21.81	20.15	21.13	22.98
15.0	YM	20.01	23.50	21.37	23.89	26.50
15.0	PM	19.56	23.50	22.12	22.99	24.25
15.0	TM	15.81	11.75	16.02	17.29	14.50
15.0	FM	15.36	9.50	16.02	14.89	13.00
17.0	YM/FP2	21.23	29.16	23.89	26.49	28.50
17.0	PM	20.72		24.74	25.47	25.95
17.5	YX	21.89		24.89	28.37	29.00
17.5	PX	20.66		24.37	25.04	25.50
17.5	FP2		29.83			
19.0	YX	22.83		26.86	30.42	30.50
19.0	PX	21.50		26.29	26.81	26.70
19.0	TH	19.41		19.64	22.63	16.25
19.0	FH	18.65	13.12	19.64	16.74	13.40
19.0	WX,FP2		31.82	34.46		
21.0	YX	24.09		29.48	33.16	32.50



Weight	Grade	Richmond \$	Fortex \$	PPCS/CFM \$	Alliance \$	Challenge \$
21.0	PX	22.62		28.85	29.17	28.30
21.0	WX,FP1		36.58	37.88		
21.5	YX	24.41		30.13	33.85	33.00
21.5	PH	23.33		24.33	31.05	24.40
21.5	WX,FP1		37.30	38.73		
23.0	YX,WX,FP1	25.35	39.44	41.30	35.90	34.50
25.0	YX,WX,FP1	26.61	42.30	44.72	38.64	36.50
25.0	TH	22.11		25.22	28.39	17.75
25.0	FH	21.11	16.30	25.22	20.64	14.44
27.0	YX,WX,FP1	27.87	45.16	48.14	41.38	38.50
30.0	YX,WX,FP1	29.76	49.45	53.27	45.49	41.50
Pelt 1.0kg woolly		9.85	10.60	10.55	11.05	11.50

- Note:**
1. The net lamb values shown above in dollars are calculated after deducting all killing charges and levies. Premiums and processing rebates have been added where applicable. When slaughtering at different companys' works, adjust for different killing charges. Farm to works transport is not included.
  2. The value of 1.0 kg wool pull/pelt is included and is shown for each company. Company wool pull/pelt differentials are shown below, e.g. for 1.5 kg woolly pelt at PPCS/CFM add on \$1.50.
  3. Spot premiums above the announced prices are sometimes paid. Allowance has to be made for potential pool payments with some companies.

#### Company Wool Pull Differentials (\$)

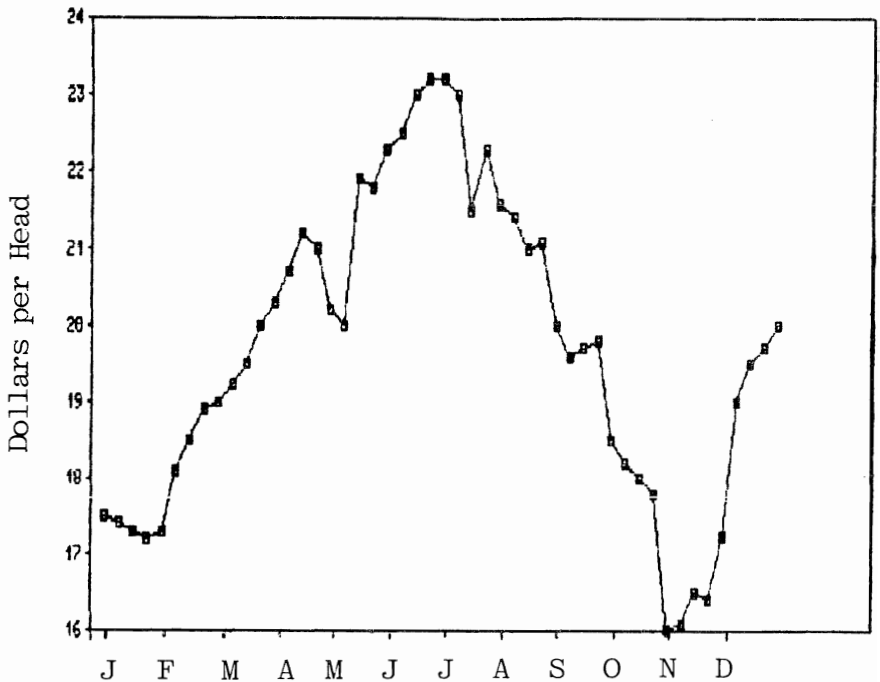
	kg	Richmond	Fortex	PPCS/CFM	Alliance	Challenge
Shorn	0.2	-3.66	-3.70	-2.75	n/a	-2.80
	0.5	-2.72	-2.50	-1.85		-1.60
	0.7	-2.19	-1.70	-1.25		-0.80
	1.0	-1.14	-0.50	-0.35		0.40
	1.2	-0.47	0.30	0.35		1.20
	1.5	0.53	1.50	1.35		2.40
	1.7	1.13	2.30	2.05		3.20
	2.0	2.03	3.50	2.95		4.40

	kg	Richmond	Fortex	PPCS/CFM	Alliance	Challenge
Woolly	0.5	-1.50	-2.00	-1.50		-2.00
	0.7	-0.90	-1.20	-0.90		-1.20
	1.0	0.00	0.00	0.00	0.00	0.00
	1.2	0.60	0.80	0.60	0.79	0.80
	1.5	1.50	2.00	1.50	1.99	2.00
	1.7	2.10	2.80	2.10	2.95	2.80
	2.0	3.00	4.00	3.00	3.85	4.00

Source N.Z Farmer December 9 1987

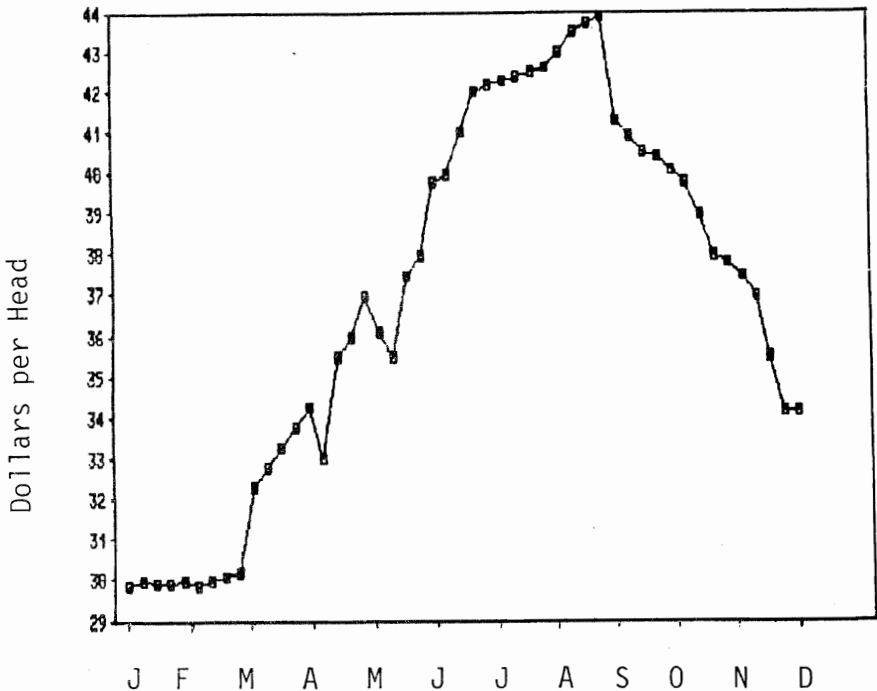
### 1.1.2 Export Lamb Values 1987

- (i) Graph of the average net price paid for a 13.5 kg lamb with a 1kg woolly pelt (January to December 1987).



Source: N.Z Farmer December 9 1987

- (ii) Graph of the average net price paid for a WX Lamb weighing 21kg with a 1kg woolly pelt (January to December 1987)



Source: N.Z. Farmer December 9 1987

### 1.1.3 Export Lamb Value Forecast

#### Lamb Skins

Average prices of around \$12.50 for lamb skins are forecast for the 1987/88 season.

#### Export Lamb

The all lamb baremeat schedule price, which was estimated at 147c/kg in 1986/87 is forecast to be around 149c/kg in 1987/88.

The combined effect of the forecast lamb baremeat price and the pelt and wool values (above) indicate an average per head price for 1987/88 of around \$21.00.

Source: "Commodity Price Projections 1987-1992"  
M.A.F. Economics Division, September 1987

### 1.1.4 Mutton Schedule

Below is an example of net prices offered to farmers for the various mutton grades for the week beginning December 7 1987. This information is usually available weekly.

Weight	Grade	Richmond	Fortex	PPCS/ CFM	Alliance	Challenge
		\$	\$	\$	\$	\$
15.0	MM	6.90	5.82	4.63	10.63	12.35
17.0	MM	6.90	6.32	5.40	11.89	12.53
17.0	MX1	9.65	11.76	10.16	13.42	15.08
19.0	MM	6.90	6.82	6.16	13.15	12.71
19.0	MX1	9.65	12.90	11.48	14.86	15.56
19.0	ML1	10.60	11.00	11.48	13.72	13.66
19.0	MP	5.35	2.64	1.03	11.82	11.76
21.0	MX1	9.65	14.04	12.81	16.30	16.04
21.0	ML1	10.70	11.94	12.81	15.04	13.94
23.0	MX1	9.65	15.18	14.13	17.74	16.52
23.0	ML1	10.81	12.88	14.13	16.36	14.22
23.5	ML2	14.12	14.06	15.40	16.93	15.47
23.5	MH	10.83	8.18	9.29	14.34	14.29
23.5	MP	5.35	2.78	1.54	14.34	11.94
25.0	ML2	14.40	14.82	16.46	17.93	15.75
27.0	ML2	14.78	15.84	17.86	19.27	16.13
27.0	MH	11.00	9.09	10.84	16.30	14.78
27.0	MF	8.25	4.23	5.17	10.63	12.08
27.0	MP	5.35	2.88	1.93	16.30	12.08
30.0	ML2	15.35	17.37	19.97	21.28	16.70
Pelt 0.3 shorn		10.57	10.65	8.70	10.21	11.00

#### Average wool pull price differentials (\$) to be added

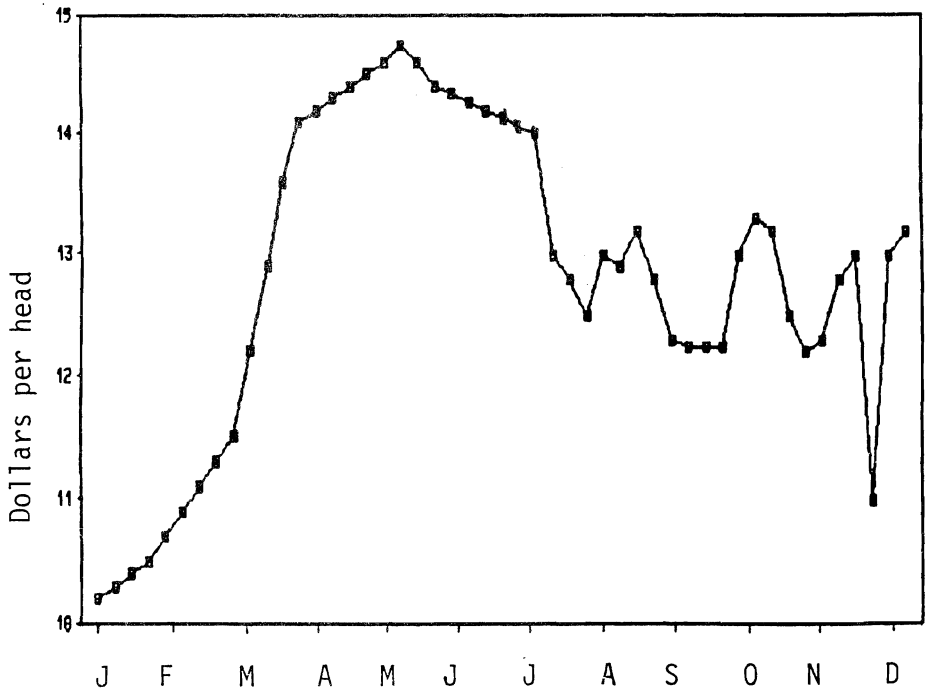
kg/head	0.3	0.5	0.7	1.0	1.2	1.5	1.7	2.0
\$ adjust	0.00	+0.71	+1.33	+2.31	+2.97	+3.89	+4.51	+5.46

- Notes:**
1. The net mutton values are calculated on the same basis as for lamb.(refer Section 1.1.1) The value of a 0.3 kg pelt is included.
  2. G.R. criteria - MM under 2mm, MX 3-9mm, ML 10-17mm, MH 18-25mm, MF over 25mm

Source: N.Z. Farmer December 9 1987

### 1.1.5 Export Mutton Values 1987

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



Source: N.Z.Farmer December 9 1987

### 1.1.6 Export Mutton Value Forecast

Sheep skins

Average prices of around \$10.50 are forecast for the 1987/88 season.

Mutton

For the 1986/87 season the average mutton schedule price was estimated to be 70 cents per kg. This is projected to increase to 78 cents in 1987/88.

Combining these baremeat prices with those forecasted for sheep skins (above) indicate a per head price increase from an estimated \$8.77 in the 1986/87 season to over \$10 in 1987/88.

Source: "Commodity Price Projections 1987-1992"

M.A.F. Economics Division, September 1987.

### 1.1.7 Local Prime Meat Prices

There is a large amount of meat sold on the hoof from farms to wholesale buyers, but the weekly prime stock sales in main centres still set the market. The current situation can be determined from the weekly stock reports in the newspapers.

As a guide the following average prices were paid for prime stock during the latter part of 1987:

	<u>Kauri</u>	<u>Feilding</u>	<u>Addington</u>	<u>Lorneville</u>
<b>September</b>				
Lambs	\$14-\$23	\$19-\$26	\$18-\$43	to \$40
Ewes	\$12-\$18	\$ 5-\$23	\$11-\$23	\$12-\$28
Hoggets	\$20-\$22	\$17-\$28	\$18-\$31	\$20-\$30
<b>October</b>				
Lambs	\$20-\$22	\$19-\$24	\$18-\$30	to \$26
Ewes	\$10-\$19	\$ 7-\$25	\$12-\$21	\$ 9-\$26
Hoggets	\$16-\$19	\$ 7-\$25	\$24-36	\$15-\$26
<b>November</b>				
Lambs	\$15-\$22	\$17-\$24	\$16-\$32	\$20-\$28
Ewes	\$10-\$35	\$ 5-\$16	\$16-\$32	\$20-\$28
Hoggets	\$17-\$26	\$15-\$27	\$21-\$26	\$22-\$32
<b>December</b>				
Lambs	\$19-\$20	to \$22	\$18-\$30	to \$26
Ewes	\$10-\$13	\$19-\$22	\$ 6-\$14	\$10-\$21
Hoggets	to \$19	to \$21	\$16-\$27	to \$25

Source: N.Z.Farmer 1987 Issues

### 1.1.8 Store and Breeding Stock Prices

Store 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 throughout the country in 1987 (summarised from the livestock pages in the N.Z. Farmer).

	<u>Upper N.I./ Waikato</u>	<u>H.Bay/ Lwr NI</u>	<u>Canty</u>	<u>Otago/Sthlnd</u>
<b>January:</b>				
Ewe lambs	\$15.00	-	\$17.00	\$23.00
2ths	\$21.00	-	\$25.00	\$31.00
5 yr ewes	\$12.00	-	\$18.00	\$18.00
<b>February:</b>				
Ewe lambs	\$ 8.00	\$15.00	\$18.00	\$28.00
2ths	\$19.00	\$22.00	\$25.00	\$32.00
5yr ewes	\$15.00	\$14.00	\$18.00	\$22.00
<b>March:</b>				
Ewe lambs	\$15.00	\$17.00	\$24.00	\$32.00
2ths	\$23.00	\$19.00	\$27.00	\$32.00
5yr ewes	-	\$14.00	\$18.50	\$26.00
<b>April:</b>				
Ewe lambs	-	\$17.00	-	\$32.00
2ths	14.00	\$15.50	-	\$29.00
5yr ewes	10.00	\$14.00	-	\$26.00
<b>May:</b>				
Ewe lambs	\$16.00	\$23.00	\$26.00	-
2ths	\$21.00	\$17.00	\$29.00	-
5 yr ewes	\$14.00	\$16.00	\$29.00	-
<b>June:</b>				
Ewe lambs	-	\$25.00	\$26.00	\$28.00
2ths	\$22.00	\$20.00	\$29.00	\$33.00
5yr ewes	\$15.00	\$19.00	\$29.00	\$27.00
<b>July:</b>				
Ewe lambs	\$14.00	\$24.00	\$28.00	\$28.00
2ths	\$21.50	\$21.00	\$35.00	\$33.00
5yr ewes	\$14.00	\$20.00	\$33.00	\$28.00
<b>August:</b>				
Ewe lambs	\$22.00	\$26.00	\$32.00	\$28.00
2ths	\$25.00	\$25.00	\$36.00	\$34.00
5yr ewes	\$18.00	\$23.00	\$35.00	\$28.00

	<u>Kauri</u>	<u>Feilding</u>	<u>Addington</u>	<u>Lorneville</u>
<b>September:</b>				
M.S.lambs	to \$16	\$14-\$25	to \$22	\$14-\$30
Ewes	\$ 7-\$12	\$ 8-\$21	-	\$12-\$40
Hoggets	to \$21	\$17-\$27	-	\$25-\$55
<b>October:</b>				
M.S.lambs	\$14-\$17	-	\$14-\$22	-
Ewes	\$ 9-\$13	\$ 7-\$19	to \$15	-
Hoggets	\$17-23	\$13-\$24	to \$23	\$14-\$35
<b>November:</b>				
M.S.lambs	\$ 4-\$15	\$ 3-\$15	-	\$12-\$22
Ewes	\$ 6-\$12	\$ 6-\$14	-	-
Hoggets	to \$17	\$18-\$24	-	\$18-\$38
<b>December:</b>				
M.S.lambs	\$ 9-\$14	\$ 5-\$19	\$16-\$23	\$14-\$19
Ewes	\$ 6-\$ 9	to \$12	to \$16	-
Hoggets	-	-	to \$22	to \$31



## 1.2 WOOL

### 1.2.1 NZ Average Price for Greasy Wool - all Qualities

Season	PRICES OF GREASY WOOL			
	Average at Auction c/kg	Target Min. Price c/kg	Suppl. Min. Price c/kg	Trigger Price c/kg
1977/78	190.43	150.0		
1978/79	218.85	170.0	205.0	250.0
1979/80	265.09	200.0	235.0	300.0
1980/81	247.08	215.0	235.0	330.0
1981/82	255.75	250.0	320.0	400.0
1982/83	255.90	250.0	320.0	400.0
1983/84	297.70	250.0	320.0	400.0
1984/85	382.53	315.0	n/a	400.0
1985/86	339.82	443.0	n/a	500.0
1986/87*	401.06	443.0	n/a	500.0

\* To December 1986

**Source:** Wool Commission/Marketing Corporation

### 1.2.2 Wool Sale Prices in late 1987

The following tables outline the prices obtained at a selection of sales during the latter part of the 1987 season.

#### September:

Description	Ingill/Tim	Chch	Dunedin	All NI Cntrs & Chch/Tim
	<u>10/9/87</u>	<u>11/9/87</u>	<u>17/9/87</u>	<u>24/9/87</u>
	Clean Market Price	Clean Market Price	Clean Market Price	Clean Market Price
<b>Micron/Category</b>				
<b>Merino</b>				
18 Fleece	-	-	-	-
19 Fleece	-	-	1978	1815
21 Fleece	1280	1286	1200	1201
23 Fleece	-	-	-	845
21 Pieces	-	-	975	985
21 Bellies	-	-	995	945

	Ingill/Tim	Chch	Dunedin	All NI Cntrs & Chch/Tim
	<u>10/9/87</u>	<u>11/9/87</u>	<u>17/9/87</u>	<u>24/9/87</u>
<b>Description</b>	Clean Market Price	Clean Market Price	Clean Market Price	Clean Market Price
<b>Micron/Category</b>				
<b>Halfbred &amp; Corriedale</b>				
25 Fleece	760	762	726	702
27 Fleece	755	745	719	699
29 Fleece	708	702	682	655
31 Fleece	668	667	656	635
28 Pieces	657	-	605	588
28 Bellies	616	-	582	574
28 Lox	560	520	470	477
26 Lambs	-	-	-	-
28 Crutchings	-	-	-	-
<b>Crossbred</b>				
32 Fleece	-	-	646	634
35 Fleece	-	-	620	615
35 Fleece	607	-	-	606
37 Fleece	611	610	603	602
37 Fleece	597	600	593	-
37 Cott	-	-	-	518
35 Pieces	536	545	527	510
35 Bellies	533	531	517	410
35 Lox	440	437	407	530
37 Crutchings	526	541	513	-
<b>Second Shear</b>				
37 Fleece	598	595	584	588
37 Fleece	589	585	579	579
37 Fleece	588	586	574	573
37 Fleece	583	583	-	575
37 Fleece	580	580	571	571
37 Fleece	572	575	-	565
37 Fleece	-	-	563	598
37 Fleece	-	-	-	502
35 Bellies & Pcs	493	496	490	-

**October:**

All North Island Centres, Dunedin, Timaru/Invercargill			Dunedin/ Napier
<u>8/10/87</u>	<u>15/10/87</u>	<u>16/10/87</u>	<u>30/10/87</u>

**Description****Micron/Category****Merino**

18 Fleece	-	-	2807	2812
19 Fleece	1950	2140	2144	2281
21 Fleece	1206	1235	1255	1326
23 Fleece	815	858	885	909
21 Pieces	989	1164	-	1250
21 Bellies	-	1002	1046	1200

**Halfbred & Corriedale**

25 Fleece	670	671	668	732
27 Fleece	660	667	667	719
29 Fleece	634	638	642	700
31 Fleece	615	623	630	698
28 Pieces	-	596	595	-
28 Bellies	559	587	730	-
28 Lox	438	454	460	570
26 Lambs	-	-	-	-
28 Crutchings	-	-	-	-

**Crossbred**

32 Fleece	-	-	-	704
35 Fleece	604	605	606	670
35 Fleece	-	596	595	655
37 Fleece	589	598	604	660
37 Cott	-	-	-	652
35 Pieces	530	525	546	-
35 Bellies	515	510	536	610
35 Lox	406	433	435	590
37 Crutchings	488	525	-	510

**Second Shear**

37 Fleece	574	592	590	648
37 Fleece	-	585	580	645
37 Fleece	-	578	-	640
37 Fleece	560	-	-	-
37 Fleece	-	-	556	-
37 Fleece	-	-	-	-
35 Bellies & Pcs	467	486	496	535

**November:**

	Well, Auck. Wang, Tim/Inv <u>5/11/87</u>	Napier <u>12/11/87</u>	Chch <u>20/11/87</u>	Dunedin <u>27/11/87</u>
<b>Description</b>				
<b>Micron/Category</b>				
<b>Merino</b>				
18 Fleece	2611	2785	-	3440
19 Fleece	2214	2204	-	2180
21 Fleece	1390	1311	-	1295
23 Fleece	960	969	-	930
21 Pieces	1310	-	-	1190
21 Bellies	1240	1160	-	1160
<b>Halfbred &amp; Corriedale</b>				
25 Fleece	727	724	-	706
27 Fleece	-	710	688	690
29 Fleece	-	699	675	680
31 Fleece	-	694	-	678
28 Pieces	-	-	-	670
28 Bellies	-	-	-	660
28 Lox	480	578	-	606
<b>Crossbred</b>				
32 Fleece	-	686	-	-
32 Fleece	685	680	-	-
35 Fleece	641	627	633	628
35 Fleece	651	638	636	622
37 Fleece	640	628	632	620
37 Fleece	633	625	625	615
37 Cott	605	-	-	-
35 Pieces	565	570	580	582
35 Bellies	555	561	565	520
35 Lox	491	481	469	458
37 Crutchings	565	560	-	542
<b>Second Shear</b>				
37 Fleece	637	627	628	616
37 Fleece	630	619	621	610
37 Fleece	634	624	625	613
37 Fleece	627	618	619	-
37 Fleece	630	622	622	610
37 Fleece	624	-	617	602
35 Bellies & Pcs	528	535	520	517

**1.2.3 1987 Highest and Lowest Values (to November 1987)**  
 (Clean Market Price)

<b>Description</b>	<b>High</b>	<b>Low</b>
<b>Micron/Category</b>		
<b>Merino</b>		
18 Fleece	3440	2611
19 Fleece	2281	1815
21 Fleece	1587	1200
23 Fleece	970	815
21 Pieces	1310	975
21 Bellies	1240	945
<b>Halfbred &amp; Corriedale</b>		
25 Fleece	842	668
27 Fleece.	868	660
29 Fleece	807	634
31 Fleece	780	615
28 Pieces	788	588
28 Bellies	730	599
28 Lox	618	438
26 Lambs	-	-
28 Crutchings	600	564
<b>Crossbred</b>		
32 Fleece	704	634
32 Fleece	685	678
35 Fleece	720	604
35 Fleece	710	595
37 Fleece	714	589
37 Fleece	708	583
37 Cott	656	605
35 Pieces	640	518
35 Bellies	635	510
35 Lox	536	406
37 Crutchings	585	488

<b>Description Micron/Category</b>	<b>High</b>	<b>Low</b>
<b>Second Shear</b>		
37 Fleece	674	574
37 Fleece	660	568
37 Fleece	666	574
37 Fleece	650	573
37 Fleece	640	571
37 Fleece	646	560
37 Fleece	605	556
37 Fleece	598	550
35 Bellies & Pcs	590	467

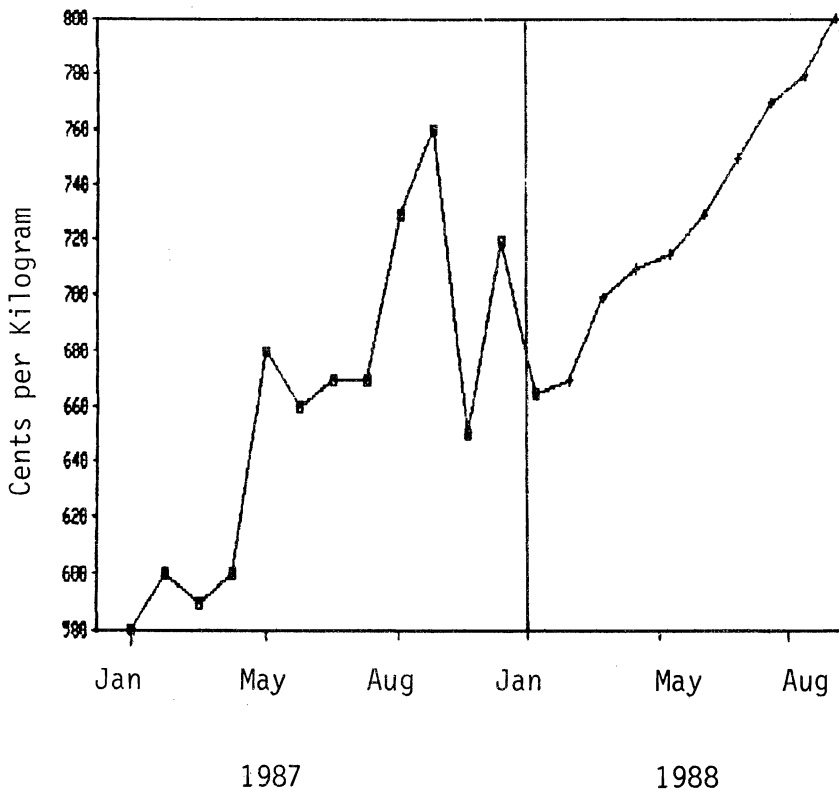
#### **1.2.4 Wool Value Forecast**

Taking into account projected movements in the world coarse wool price and assumed exchange rates, an average wool price of around 480 cents per kg greasy weight basis for the 1987/88 season (647 cents clean weight basis) is forecast.

Source: "Commodity Price Projections 1987-1992"  
M.A.F. Economics Division, September 1987.

### 1.2.5 Average Wool Prices 1987-1988 (Clean)

Average Auction price (1987) and futures (1988)  
(NZc/kg)



Source: N.Z. Farmer December 9 1987

## 1.3 CATTLE

### 1.3.1 Export Meat Schedule

The beef schedule works in the same way as does the sheep meat schedule (refer to Section 1.1.1)

Below is an example of net prices offered for the week beginning December 7, 1987. This information is usually available weekly.

<b>Grade</b>	<b>CW</b>	<b>Approx Liveweight</b>	<b>Richmond \$</b>	<b>Riverlands \$</b>	<b>PPCS/CFM \$</b>
P Steer	210	400	311	292	286
	230	435	364	344	338
	260	480	428	404	404
	280	510	479	450	450
	310	560	537	515	505
	330	590	593	565	559
	360	630	658	618	622
G Steer	210	395	292	271	268
	230	430	343	321	318
	260	475	405	378	377
	280	505	454	422	424
	310	555	510	484	477
	330	585	563	532	529
	360	625	626	582	590
P Heifer	180	355	252	249	231
	210	395	311	292	286
	230	430	364	344	338
	260	475	428	404	400
	280	505	482	450	452
G Heifer	180	350	236	231	214
	210	390	292	271	268
	230	425	343	321	318
	260	470	405	378	377
	280	500	457	422	427
M Cow	140	325	161	142	145
	160	355	219	196	202
	180	385	255	231	237
	210	435	309	282	290
	230	465	349	321	328



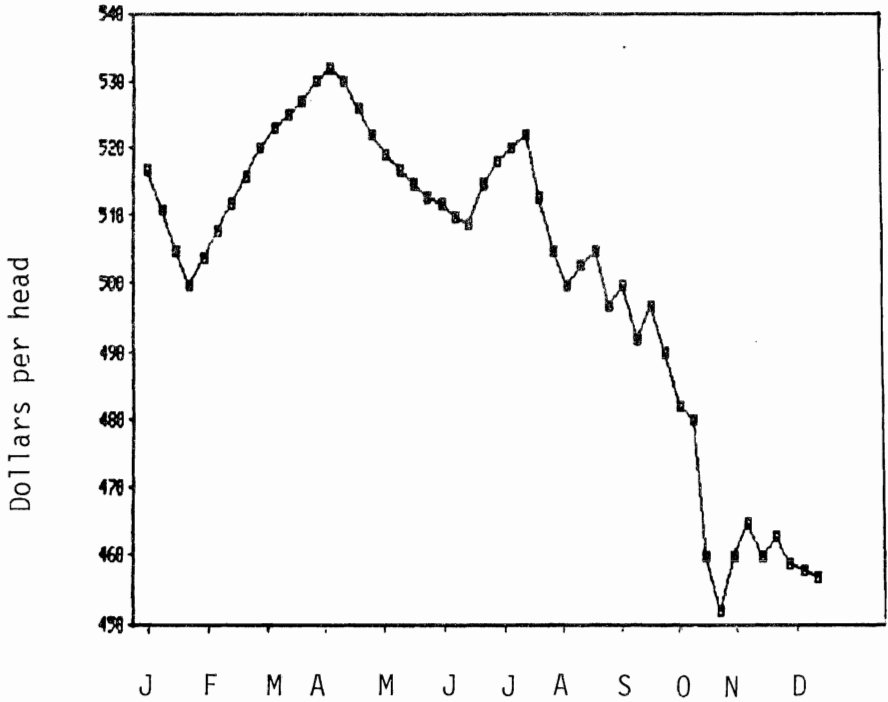
Grade	CW	Approx Liveweight	Richmond \$	Riverlands \$	PPCS/CFM \$
Bull	180	365	255	249	246
	210	415	335	334	325
	230	445	386	379	376
	260	490	448	443	438
	280	520	494	492	484
	310	570	558	561	547
	330	600	611	615	600
	360	640	689	690	678

- 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:** NZ Farmer December 9 1987 (Agri-fax)

### 1.3.2 Beef Price Schedule 1987

- (i) Graph of net price paid for a P Steer weighing 280kg (January to December 1987)



Source: N.Z.Farmer December 9 1987

- (ii) Graph of the net price paid for a 260 kg bull (January to December 1987)



Source: N.Z. Farmer December 9 1987

### 1.3.3 Export Beef Value Forecast

#### Cow Beef

The schedule price is forecast at around 208 cents per kg for the 1987/88 season

#### Bull Beef

The schedule price is forecast at around 260 cents per kg for the 1987/88 season

Source: "Commodity Price Projections 1987-1992"

M.A.F. Economics Division, September 1987.

### 1.3.4 Local Cattle Prices - Prime Stock

Average prices at the 3 main cattle selling centres for the later part of 1987 were as follows:

#### Prime Cattle

	<u>Steers</u>	<u>Heifers</u>	<u>Cows</u>
<b>September:</b>			
Frankton	\$500-\$750	\$260-\$480	\$120-\$550
Stortford	\$500-\$760	\$350-\$530	\$250-\$400
Addington	\$480-\$850	\$380-\$550	\$260-\$550
<b>October:</b>			
Frankton	\$330-\$730	\$300-\$480	\$150-\$380
Stortford	\$470-\$795	\$440-\$490	\$305-\$455
Addington	\$380-\$800	\$380-\$500	\$220-\$450
<b>November:</b>			
Frankton	\$370-\$678	\$252-\$420	\$235-\$450
Stortford	\$450-\$732	\$350-\$480	\$250-\$535
Addington	\$520-\$828	\$380-\$654	\$250-\$470
<b>December:</b>			
Frankton	\$275-\$640	\$145-\$395	-
Stortford	\$450-\$690	\$345-\$490	-
Addington	\$480-\$700	\$310-\$500	\$220-\$500

### 1.3.5 Store and Breeding Stock Prices

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>Upper N.I.</u> <u>Waikato</u>	<u>Hawkes Bay</u> <u>&amp; Lwr N.I.</u>	<u>Canty</u>	<u>Otago/</u> <u>Southland</u>
<b>January:</b>				
2 1/2 Yr steers	\$430	-	\$500	\$450
1 1/2 Yr steers	\$300	-	\$380	\$300
Weaner steers	\$140	-	\$150	\$180
Breeding heifer	\$270	-	\$320	\$300
Breeding cow	\$460*	-	-	\$400*
* Calf at foot				
<b>February:</b>				
2 1/2 yr steers	\$460	\$490	\$525	\$500
1 1/2 yr steers	\$380	\$345	\$390	\$450
Weaner steer	\$140	-	\$150	\$160
Breeding heifer	\$210	\$260	\$340	\$300
Breeding cow	\$340	\$355	-	\$400
<b>March:</b>				
2 1/2 yr steers	\$480	\$500	\$575	\$550
1 1/2 steers	\$380	\$420	\$430	\$450
Weaner steer	\$180	\$190	\$180	\$230
Breeding heifer	\$310	\$200	\$320	\$240
Breeding cow	\$390	\$350	-	\$550
<b>April:</b>				
2 1/2 yr steers	-	\$525	-	\$550
1 1/2 yr steers	-	\$400	-	\$450
Weaner steer	-	\$250	-	\$230
Breeding heifer	-	\$200	-	\$260
Breeding cow	-	\$400	-	\$550
<b>May:</b>				
2 1/2 yr steers	\$590	\$510	\$600	-
1 1/2 yr steers	\$465	\$410	\$460	-
Weaner steer	\$185	\$225	\$200	-
Breeding heifer	\$270	\$200	\$280	-
Breeding cow	\$380	\$360	\$415	-
<b>June:</b>				
2 1/2 yr steers	\$420	\$420	\$520	\$550
1 1/2 yr steers	\$250	\$310	\$320	\$400
Breeding steer	\$180	\$260	\$430	\$240
Weaner heifer	\$300	\$185	\$210	\$270
Breeding cow	\$400*	\$350	\$400	\$550

	<u>Upper N.I. Waikato</u>	<u>Hawkes Bay &amp; Lwr N.I.</u>	<u>Canty</u>	<u>Otago/ Southland</u>
<b>July:</b>				
2 1/2 yr steers	\$520	\$540	\$540	\$550
1 1/2 yr steers	\$400	\$450	\$460	\$400
Weaner steer	\$200	\$280	\$200	\$240
Breeding heifer	\$300	\$220	\$280	\$270
Breeding cow	\$300	\$220	\$280	\$270
<b>August:</b>				
2 1/2 yr steers	\$580	\$590	\$545	\$550
1 1/2 yr steers	\$490	\$540	\$500	\$450
Weaner steer	\$200	\$340	\$200	\$240
Breeding heifer	\$225	\$260	\$480	\$270
Breeding cow	\$430	\$410	\$480	\$500
	<u>Frankton</u>	<u>Stortford</u>	<u>Addington</u>	
<b>September:</b>				
Adult steers	\$345-\$570	\$340-\$550	\$500-\$600	
Yearling steers	\$220-\$315	\$240-\$370	\$350-\$450	
Adult heifers	\$220-\$320	\$250-\$360	-	
Yearling heifers	\$210-\$365	\$220-\$300	\$200-\$360	
<b>October:</b>				
Adult steers	\$320-\$525	\$390-\$450	to \$500	
Yearling steers	\$220-\$315	\$240-\$370	\$350-\$450	
Adult heifers	\$220-\$320	\$250-\$360	-	
Yearling heifers	\$210-\$365	\$220-\$300	\$200-\$360	
<b>November:</b>				
Adult steers	\$332-\$505	\$340-\$510	-	
Yearling steers	\$242-\$360	\$310-\$431	-	
Adult heifers	\$175-\$345	\$240-\$360	-	
Yearling heifers	\$180-\$298	\$200-\$340	-	
<b>December:</b>				
Adult steers	\$350-\$560	\$458-\$507	\$480-\$556	
Yearling steers	\$270-\$410	\$300-\$365	\$332-\$365	
Adult heifers	to \$340	\$296-\$342	to \$465	
Yearling heifers	\$226-\$307	\$240-\$304	\$250-\$320	

## 1.4 DAIRY PRODUCE

### **1.4.1 Whole Milk for Manufacture**

In June, the Dairy Products Prices Authority fixes two values, one for milkfat and one for solid-not-fat (S.N.F.). When these prices are known, the New Zealand Dairy Board fixes the actual product purchase prices, i.e. the prices for butter, cheese, milk powders, etc. Costs of milk collection and manufacturing are included. The Board may adjust the prices, by up to 5% of the basic milkfat price to achieve a desired product range. If the reaction of the manufacturing companies to the price is favourable, the prices are confirmed and the companies are then committed to manufacture not less than 90% of the products as set out in their programmes.

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 two seasons, and the advances offered for this season as at October 1987.

	<u>Payout 1985/86</u>	<u>Payout 1986/87</u>	<u>Advance 1987/88*</u>
Northland	386c/kg	330c/kg	250c/kg
Waikato	400c/kg	361c/kg	270c/kg
Kiwi	400c/kg	380c/kg	240c/kg
Manawatu	400c/kg	352c/kg	260c/kg
Marlborough	377c/kg	314c/kg	220c/kg
Tai Tapu )	395c/kg	288c/kg	
Temuka )	412c/kg	343c/kg	260c/kg
Otago Co-op	399c/kg	385c/kg	285c/kg

\*The advance payment will be reviewed periodically through the season. The total payout will not be determined until mid year, although a conservative estimate at this stage is \$3.35 to \$3.50 per kg.

### **1.4.2 Whole Milk for Town Supply**

#### **(i) Canterbury Dairy Farmers**

##### Payout Prices for Quota Milk

Advance payout prices for finest grade milk are:

Autumn price	- September, March, April	25.9 cents/litre
Summer price	- October to February	20.9 cents/litre
Winter price	- May to August	33.5 cents/litre

These seasonal prices are based on an average advance price of 26 cents per litre for finest grade milk. Prices will be reviewed periodically throughout the season and adjustments will be made when appropriate.

#### Payout Prices for Surplus Milk

Advance prices for finest grade surplus milk will be the same as for the manufacturing dairy industry and will be paid on the basis of cents per kg of milkfat. The opening price to apply from 1 September 1987 is 260c/kg milkfat.

The advance price will be reviewed periodically and retrospective adjustments to the beginning of the season will be made in line with changes in the manufacturing price. Review dates are expected to be November, February and June.

#### **(ii) Manawatu Coop Dairy Company**

Average price for the season will be:

Quota milk - 26.4 cents per litre (Net)

Advance payments:

September - January 18.75 cents per litre

February - April 23.0 cents per litre

May - August 33.0 cents per litre

Advance price for surplus will be \$2.80/kg milkfat

#### **(iii) Auckland Milk Corporation**

Average prices at present (December 1987):

18.4c for quota milk

295c per kg milkfat for surplus milk

### **1.4.3 Dairy Cattle Prices**

The differences in the prices paid for dairy cattle in the various districts of the country are not solely attributable to locality. They are dependant on the type of dairying carried out (i.e. town milk or factory supply), the other farming systems in the district, and the time of year.



The following table is a guide to the variation in prices paid for dairy cattle during the last year.

	<u>Upper N.I. &amp; Waikato</u>	<u>Canterbury</u>	<u>Otago/Sthlnd</u>
<b>January:</b>			
Fresian 2nd/3rd calver	\$390	-	\$530
Jersey 2nd/3rd calver	\$300	-	\$480
Fresian heifer ic or rwb	\$310	\$350	\$350
Jersey heifer ic or rwb	\$200	-	\$270
<b>February:</b>			
Fresian 2nd/3rd calver	\$480	-	\$500
Jersey 2nd/3rd calver	\$300	\$400	\$450
Fresian heifer ic or rwb	\$280	\$360	\$350
Jersey heifer ic or rwb	\$230	-	\$270
<b>March:</b>			
Fresian 2nd/3rd calver	\$380	\$450	\$500
Jersey 2nd/3rd calver	\$310	\$350	\$450
Fresian heifer ic or rwb	\$360	\$440	\$350
Jersey heifer ic or rwb	\$280	\$340	\$270
<b>April:</b>			
Fresian 2nd/3rd calver	-	-	\$550
Jersey 2nd/3rd calver	-	-	\$450
Fresian heifer ic or rwb	-	-	\$400
Jersey heifer ic or rwb	-	-	\$300
<b>May:</b>			
Fresian 2nd/3rd Calver	\$460	\$430	-
Jersey 2nd/3rd calver	\$390	\$350	-
Fresian heifer ic or rwb	\$280	\$430	-
Jersey heifer ic or rwb	\$240	\$280	-
<b>June:</b>			
Fresian 2nd/3rd Calver	\$410	\$460	\$550
Jersey 2nd/3rd Calver	\$330	-	\$450
Fresian heifer ic or rwb	\$380	\$580	\$400
Jersey heifer ic or rwb	\$300	-	\$300
<b>July:</b>			
Fresian 2nd/3rd Calver	\$390	\$490	\$550
Jersey 2nd/3rd Calver	\$300	-	\$450
Fresian heifer ic or rwb	\$340	\$390	\$400
Jersey heifer ic or rwb	\$280	-	\$300

	<u>Upper N.I. &amp; Waikato</u>	<u>Canterbury</u>	<u>Otago/Sthlnd</u>
<b>August:</b>			
Fresian 2nd/3rd Calver	\$510	\$495	\$550
Jersey 2nd/3rd Calver	\$370	-	\$450
Fresian heifer ic or rwb	\$450	\$400	\$400
Jersey heifer ic or rwb	\$200	-	\$300

Average Prices for the later part of 1987 were as follows:

	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
North Island	\$325-\$530	\$320-\$500	\$345-\$430	-
South Island	\$480-\$600	\$350-\$450	\$350-\$450	-

**Source:** NZ Farmer 1987 issues

#### **1.4.4 Bobby calves**

	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>
N.I. Heifer	\$35-\$ 60	\$30-\$ 60	\$35-\$60	-
Bull	\$60-\$105	\$40-\$ 85	\$67-\$94	-
S.I. Heifer	\$38-\$100	\$15-\$ 85	\$48-\$90	-
Bull	\$56-\$105	\$30-\$105	\$70-\$150	\$48-\$115

## 1.5 PIG PRODUCTION

### 1.5.1 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 23 November 1987

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

CODE	A	B	C	D	E
Fat Measure	under 35 kg	35.0-40.0 kg	40.5-45.0 kg	45.5-50.0 kg	50.5-55.0 kg
Z Under 6	145	145	145	145	145
1 6 - 9	303	303	303	293	277
2 10 - 12	293	298	298	293	277
3 13 - 15	263	263	283	278	262
4 16 - 18	243	243	243	243	232
5 19 - 21	163	163	163	188	187
6 22 - 24	153	153	153	143	142
7 Over 24	133	133	133	133	132

CODE	F	G	H	I	J
Fat Measure	55.5-60 kg	60.5-65.0 kg	65.5-70.0 kg	70.5-75.0 kg	Over 75.0 kg
Z Under 6	145	145	145	145	145
1 6 - 9	272	272	272	262	232
2 10 - 12	272	272	272	262	232
3 13 - 15	267	267	267	257	232
4 16 - 18	237	247	247	232	222
5 19 - 21	212	212	212	212	212
6 22 - 24	142	142	142	142	142
7 Over 24	132	132	132	132	132

#### **Manufacturing**

All weights	ex Belfast	115 cents per kilogram
	ex Malvern	135 cents per kilogram

These prices are subject to change at short notice.

## Deductions

Levies:	Pork Industry Council Administration	)	\$3.75
	Pork Marketing Board Stabilisation Levy	)	
	Federated Farmers Levy		\$.0175
	Meat Inspection Levy		\$2.50
	ACC Levy increase		<u>\$ 1.33</u>
	Total per Pig		<u>\$ 7.60</u>

## Additions (built into Schedule):

ACC levy increase adjustment
Pigs under 50 kg 3c per kg
Pigs over 50 kg 2c per kg

### 1.5.2 Live Pig Sales

A lot of pork is sold to the local fresh meat market where returns may be higher. 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 over the last year and are summarised from the livestock pages published in the N.Z. Farmer:

	<u>Weaners</u>	<u>Prime under 50 kg</u>	<u>Prime under 75 kg</u>	<u>Choppers over 100 kg</u>
	\$	\$	\$	\$
<b>January:</b>				
North Island	45	90	150	180
Canterbury	50	130	180	200
<b>February:</b>				
North Island	40	109	120	140
Canterbury	55	130	180	195
<b>March:</b>				
North Island	42	115	148	160
Canterbury	48	130	190	200
<b>April:</b>				
North Island	-	-	-	-
Canterbury	-	-	-	-
<b>May:</b>				
North Island	50	106	135	180
Canterbury	50	115	150	100

	<u>Weaners</u>	<u>Prime under 50 kg</u>	<u>Prime under 75 kg</u>	<u>Choppers over 100 kg</u>
	\$	\$	\$	\$
<b>June:</b>				
North Island	38	96	125	190
Canterbury	30-75	95-135	140-190	130-250
<b>July:</b>				
North Island	48	110	155	190
Canterbury	50-80	115-135	130-180	170-200
<b>August:</b>				
North Island	48	116	143	190
Canterbury	75	128	160	175
	<u>Porkers</u>	<u>Baconers</u>	<u>Choppers</u>	<u>Weaners</u>
	\$	\$	\$	\$
<b>September:</b>				
Frankton	100-150	140-200	130-300	35- 85
Addington	80-145	120-200	140-260	20-100
<b>October:</b>				
Frankton	95-158	150-215	200-280	35- 80
Addington	110-155	150-200	170-280	30-100
<b>November:</b>				
Frankton	110-160	160-222	110-370	32- 70
Addington	120-160	170-208	130-370	30- 70

## **1.6 GOAT PRODUCTION**

### **1.6.1 Introduction**

Within recent years the position of the goat as a farm animal has changed from being a noxious animal to one that can form the basis of a viable farming enterprise. Production from goats can be divided into three categories: the production of meat, milk and fibres. In conjunction with these, goats can be employed as a viable alternative in weed control. All aspects of the goat industry are still within their infancy, but are at present experiencing a period of growth. Meat production from feral goats has the highest output but the lowest unit value, whilst milk and fibre have respectively lower outputs but higher unit values.

### **1.6.2 Chevon Production**

Chevon differs from mutton in that it has a lower fat percentage. This values chevon for export to countries where consumer demands require lean meat. The majority of chevon exported from New Zealand is derived from the feral goat population of New Zealand. Prices paid for feral goats for meat vary, but generally worth \$1.00 to \$1.50 per kg carcase weight. A schedule guaranteeing \$1.20 per kg for farmed meat was announced in January 1988. Preferred are animals between 10-15 kg carcase weight. Goats are killed at several freezing works around the country during the off season. Game meat packing houses will also accept feral but not farmed goats.

So far there is no grading system for chevon in New Zealand, however as markets expand a system will have to be devised. Caribbean Asian and Mediterranean countries are the main importers of New Zealand chevon.

Male animals, both wethers and bucks, provide the bulk of animals for slaughter as, at present, feral does are worth more for breeding purposes.

### **1.6.3 Goats Milk Production**

Milk is produced from specially selected breeds such as the Saanen, Toggenburg, British Alpine and Anglo Nubian. Milk produced is processed as either raw milk, dried milk powder or cheese. Raw milk is marketed privately by the producer through supermarket and delicatessen outlets or alternatively by co-operatives. The gross return to the producers per litre, varies as to the producer's direct or indirect distributing method, and is fetching approximately 40c per litre in the Nelson area at present.

Producers of goats milk in the Tasman/Nelson area have successfully produced goats milk cheese. The return from cheese making to the producer is about the same as above.

## 1.6.4 Fibre

### (i) Mohair Production

Market demand for 'low kemp' mohair is reflected in the prices paid. However only approximately 6% of 1987 NZ mohair production was graded 'low kemp', therefore most mohair sold was at the discounted prices.

<b>Grade</b>	<b>\$NZ/kg</b>
A Kid under 26 microns,over 90mm	\$28.56
B Kid under 26 microns,over 90mm	\$15.19
A 2nd Kid under 26 microns,kempy,over 90mm	\$20.85
Super Fine A 2nd Kid 23 microns,over 90mm	\$11.50
A Young Goat 26 - 30 microns,over 90mm	\$19.50
A Fine Adult 30 - 34 microns,over 90mm	\$16.00
A 2nd Fine Adult	\$6.94
B 2nd Fine Adult	\$5.55
A Crossbred Fine Adult,kempy,26+ microns,over90mm	\$4.86
A Strong Adult > 34 microns,over 90mm	\$8.00
B Strong Adult > 34 microns,under 90mm	\$8.00
A 2nd Strong Adult > 34 microns,kempy,over 90mm	\$4.80
Stains	\$2.64
Inferior Mohair	\$2.89
Coloured Mohair	\$2.50

### (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 are ranging from 0.7 to 1.5 kg per goat, and farmers have been typically netting \$20 per goat annually (net of all charges except shearing - twice yearly) from Cashgora sales.

<b>Grade:</b>	<b>\$/kg</b>
Cashgora A	48.50
Cashgora B	24.20
Cashgora C	14.70
WC Cashgora-White Down/ some coloured GH	24.80
GY/BR Cashgora-Coloured Down/ coloured GH	19.60
Super Fine B Kid	21.00
Inferior Cashmere/Cashgora (white)	8.63
Inferior Cashmere/Cashgora (coloured)	1.00

### (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.

Grade:	Yield %	Diameter	\$/kg Down
WW1-4	34.09	16.3	137.07
WW1-2	25.51	16.3	137.07
WW2-4	46.54	17.6	104.42
WW2-2	28.79	17.6	104.42
WC1-3	26.60	16.4	137.07
WC1-2	17.90*	16.2	116.51
WC2-4	36.91	17.3	104.42
WW2-2	21.91	17.3	104.42
GY1-3	25.61	16.3	122.60
GY1-2	17.10*	16.3	104.21
GY2-3	28.59	17.3	91.80
BR1-3	24.90	16.2	111.83
BR1-2	16.40*	16.1	89.46
BR2-3	25.50	17.2	83.72

\* Bales yielding below 20% discounted 5% per 1% decrease in yield.

(Information kindly provided by P.V. Shannon, Goat Officer and Co-ordinator, Wrightson-Dalgety, Christchurch)

### 1.6.5 Goat Fibre Value Forecast

#### Mohair

Taking into account trends in world mohair prices and assumed exchange rates, an average NZ mohair auction price of \$10.50 per kg is forecast for the 1987/88 July-June year.

#### Cashgora

At present all cashgora produced in New Zealand is sold under contract through the Mohair-Cashmere Warehouse to UK and Swiss firms. These contracts will operate until 1990 with prices being increased by 10% p.a. until then.

#### Cashmere

The NZ f.o.b price for the current season (year ending June 1988) is forecast to be \$134/kg on a down weight basis.

Source: "Commodity Price Projections 1987-1992"

M.A.F. Economics Division, September 1987.

### 1.6.6 Stock

(Information kindly provided by P.V.Shannon, Goat Officer and Co-ordinator, Wrightson Dalgety, Christchurch.)

Typical prices in December 1987 were as follows:

Pure-bred angora	does	\$250-\$1000	kids	\$100-\$500
Grade one	does	\$ 80- \$160	kids	\$ 50-\$140
Grade two	does	\$ 50- \$120	kids	\$ 40-\$ 75



Grade three	does	\$ 35- \$ 50	kids	\$ 30-\$ 40
Grade four	does	\$ 25- \$ 40	kids	\$ 20-\$ 35
Pure bred bucks		\$100 to \$250		
Feral does		\$20 to \$30		
Pure bred wethers		\$30 to \$40		
Grade one wethers		\$30 to \$40		
Grade two wethers		\$10 to \$12		
Grade three wethers		\$10 to \$12		
Grade four wethers		\$12 to \$17		
Cashmere Buck		\$500 to \$1000 (suitable for Cashgora breeding)		

## 1.7 DEER PRODUCTION

### 1.7.1 Introduction

Deer farming in New Zealand has developed into an established industry with much promise as an export earner through sales of the two main products which are venison and velvet.

### 1.7.2 Velvet

Pool prices announced 11 December 1987

Grade	Fortex		Wrightson Dalgety	
	Group No.1 Pool		1st South Island Pool	
Super A	171.50		171.50 to	201.00
A1	169.00		165.55 to	170.55
A2	168.99		165.55 to	170.55
B1	161.99		161.75 to	165.99
B2	161.55		161.75 to	165.99
C1	161.55		152.75 to	161.50
C2	161.55		152.75 to	161.50
C3	125.00		152.75 to	161.50
D	110.00		106.15 to	129.05
TW1	132.50		131.75 to	138.00
TW2	128.99		131.75 to	138.00
Spiker	39.99		51.55	
Butts	72.00		-	
Overgrown	-		58.00	
Poor Quality			20.55	

It is unlikely that prices will remain at these high levels for the remainder of the season.

### 1.7.3 Venison

Week beginning December 7 1987

Gross venison prices offered (dollars per kg carcase weight)

Grade	Weight range kg	FORTEX	MAIR	PPCS/ G.FDS	Wrightson
AP	less than 40	4.80	4.00	4.75	4.00
G	40 to 45	4.80	5.00	4.75	5.00
R	45 to 50	6.00	5.50	4.75	6.00
A	50 to 65	6.00	6.00	6.05	6.00
D	70 to 80	6.00	6.00	6.05	6.00
E	80 to 85	6.00	5.75	5.80	5.50

Grade	Weight range kg	FORTEX	MAIR	PPCS/ G.FDS	Wrightson
S	85 to 90	6.00	5.75	5.80	5.50
	over 90	6.00	5.25	5.80	4.00
H1	all weights	6.00			
AF	all weights	4.50	3.00	4.40	3.00
AF2		3.25			

Fallow Schedule (dollars per kg carcase weight)

Grade	AP Grades				APH	API
Age	1-2yrs	1-2yrs	1-2yrs	1-2yrs	over 2	1-2yrs
Weight(kg)	23	23-24	24-26	over 26	all	all

**"Game**

<b>"Meats"</b>	4.75	5.50	5.50	5.80	4.50	3.00
<b>"Mair"</b>	5.30	5.30	5.80	5.80		4.00

Source: N.Z. Farmer December 9 1987

**1.7.4 Livestock**

The following tables of live deer prices are summaries of information taken from the livestock pages of the N.Z. Farmer during 1987 and are published here as a guide to the variations in prices that occurred.

	<u>North Island</u>	<u>Canterbury</u>	<u>Otago/Sthlnd</u>
<b>January:</b>			
Weaner yrlg hinds	-	-	\$1700
18 mth/2 yr hinds	-	\$1800	\$2300
M.A. Hinds	-	-	\$2000
Weaner/yrlg stags	-	\$300	\$ 240
18 mth/2 yr stags	-	-	\$ 300
<b>February:</b>			
Weaner yrlg hinds	\$1600	-	\$1500
18 mth/2 yr hinds	-	\$1800	\$2000
M.A. Hinds	\$1500	-	\$1600
Weaner/yrlg stags	\$290	\$300	\$ 200
18 mth/2 yr stags	\$400	-	\$ 320

	<u>North Island</u>	<u>Canterbury</u>	<u>Otago/SthInd</u>
<b>March:</b>			
Weaner yrlg hinds	\$1100	\$1800	\$1500
18 mth/2 yr hinds	\$1300	-	\$2000
M.A. Hinds	\$1100	-	\$1600
Weaner/yrlg stags	\$210	\$300	\$180
18 mth/2 yr stags	\$290	-	\$300
<b>April:</b>			
Weaner yrlg hinds	-	-	\$1500
18 mth/2 yr hinds	\$1400	-	\$2000
M.A. Hinds	\$1100	-	\$1600
Weaner/yrlg stags	\$ 175	-	\$ 180
18 mth/2 yr stags	\$350	-	\$ 300
<b>May:</b>			
Weaner yrlg hinds	\$950	\$1100	-
18 mth/2 yr hinds	\$850	\$1500	-
M.A. Hinds	\$1400	\$1500	-
Weaner/yrlg stags	\$210	\$181	-
18 mth/2 yr stags	\$300	-	-
<b>June:</b>			
Weaner yrlg hinds	\$700	\$900	\$800
18 mth/2 yr hinds	\$875	\$1450	\$1000
M.A. Hinds	\$850	\$1100	\$800
Weaner/yrlg stags	\$225	-	\$180
18 mth/2 yr stags	\$350	-	\$350
<b>July:</b>			
Weaner yrlg hinds	\$800	\$900	\$800
18 mth/2 yr hinds	\$1400	\$1450	\$1200
M.A. Hinds	\$1100	\$1250	\$1000
Weaner/yrlg stags	\$280	-	\$190
18 mth/2 yr stags	\$380	-	\$300
<b>August:</b>			
Weaner yrlg hinds	\$800	\$850	\$800
18 mth/2 yr hinds	\$1000	\$1400	\$1000
M.A. Hinds	\$950	-	\$800
Weaner/yrlg stags	\$230	-	\$180
18 mth/2 yr stags	\$260	-	\$300

## 1.8 CROPS

### 1.8.1 Wheat

Mill contracts are available through various agents and terms vary considerably. One firm has offered a fixed contract price of \$240 per tonne (delivered Christchurch) for 100 index milling wheat in the 1987/88 season but other contracts are more complex. As an example **D.H.Brown** 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 and Acala			
	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
	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.

### **1.8.2 Barley**

The Canterbury New Zealand Malting Company contract price for No. 1 Grade Malting barley for the 1987/88 harvest is \$180 per tonne in the South Island (delivered Heathcote) or \$170 per tonne (delivered Rakaia or Ashburton), and \$220 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 \$6.50 per tonne for delivery during the month of May and a further \$3.75 per tonne per month thereafter. Where the company requires the barley to be stored, the contract price will be paid following delivery and grading.

Contract price for seed barley in 1987/88 is about \$170 per tonne. There is very little difference between cultivars. The above is a South Island price. North Island prices are likely to be above this.

The price for feed barley grown on contract is about \$140 per machine treated tonne delivered Christchurch.

### **1.8.3 Oats**

The price offered for good quality feed grade oats this season is \$160 to \$170 per tonne contract.

### **1.8.4 Peas**

The prices offered for field dressed peas in bulk grown under contract for the 1987/88 harvest are:

1. **Field peas** - within the range \$350 to \$450 per tonne.
2. **Garden peas** - within the range \$300 to \$400 per tonne.  
 Varies depending on cultivar.  
 Paid on M/D weight.  
 Contracts vary but normally 45 to 60% is paid at harvest with the balance in September.

**Note:** All the above prices are for bulk peas. 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 (excl.Gst)</u>		
		Canterbury	Manawatu	Hawkes Bay
0	not exceeding 90	334.47	-	
1	90 to 95	310.87	328.15	
2	95 to 100	283.12	298.85	Prices
3	100 to 105	253.20	276.27	unavail.
4	105 to 110	229.71	242.77	at time of
5	110 to 115	220.10	232.33	printing
6	115 to 120	206.06	215.40	
7	over 120	185.92	196.25	

**Note:** Freezer pea crops that are passed over are paid for at the market price for seed peas when they are harvested and dressed.

### 1.8.5 Beans

Beans grown for process freezing are paid for on the following scale (Canterbury)

<u>Grade</u>	<u>Average Seed Length</u>	<u>\$ per tonne packed weight (excl. GST)</u>
0	not exceeding 8.5mm	259.69
1	over 8.5mm, not over 9mm	252.40
2	over 9mm, not over 9.5mm	246.48
3	over 9.5mm, not over 10mm	241.89
4	over 10mm, not over 10.5mm	237.40
5	over 10.5mm, not over 11mm	234.75
6	over 11mm, not over 11.5mm	232.97
7	over 11.5mm, not over 12mm	231.18
8	over 12mm, not over 12.5mm	229.45
9	over 12.5mm, not over 13mm	227.72
10	over 13mm	225.68

### 1.8.6 Other Process Crops

**Beetroot:** (Hawkes Bay) Prices unavailable at time of printing.

**Broccoli:** The 1988 harvest price will be \$700 per tonne (Manawatu only)

**Brussel Sprouts:** (Canterbury) - Prices unavailable at time of printing.

**Carrots:** \$80 per tonne (Manawatu)

**Cauliflower:** Cauliflower grown for process freezing will be paid for at \$452 per tonne packed weight (autumn/winter harvest , Canterbury) and \$335 per tonne (Manawatu).

**Onions:** Prices paid for processing onions will be approximately \$300 per tonne for the 1987/88 harvest (Manawatu)

**Sweet Corn:** \$100 per tonne (Manawatu)

**Tomatoes:** (Hawkes Bay) Prices unavailable at time of printing.

**Zucchini:** \$480 per tonne (Manawatu)

### 1.8.7 Potatoes

#### Canterbury:

The price paid for process potatoes of acceptable quality in the 1987/88 season will be based on specific gravity. The base price will be \$130 per tonne for potatoes of S.G. = 1.084. Potatoes with a S.G. of less than this are not normally accepted but would be paid for at the base rate less \$1.30 per tonne for every .001 that the S.G. is less than 1.084. Above the minimum , an extra \$1.30 per tonne will be paid for every .001 that the S.G. exceeds the minimum.

For example	SG 1.078	\$122.20 per tonne
	SG 1.084	\$130.00 per tonne
	SG 1.090	\$137.80 per tonne
	SG 1.095	\$144.30 per tonne

In addition a bonus will be paid for size:

For every 1% that the average of a bin load exceeds 80% of potatoes over 65mm square (or 160 g) a further 60 c per tonne will be paid.

Deductions will be made for diseased or defective potatoes, where earth content is greater than 1% of total weight, and for rocks or other foreign material.

Allowances of \$2.50 per tonne will be made for grower owned bins and where company bins are used a charge of \$3.50 per bin will be levied. (Both include GST).

#### **Small Potatoes:**

\$155 per tonne (minimum allowable size is 25mm square and the maximum is 50mm square) S.G. should not exceed 1.078



Manawatu:

The price paid in the Manawatu will be approximately \$180 per tonne.

**1.8.8 Lupins**

Very few lupin seed crops are grown at present, presumably as the result of reluctance on the part of the farmers to grow a relatively risky crop. It is estimated that good quality lupin seed would fetch in the vicinity of \$300 per tonne.

**1.8.9 Maize**

Feed maize in the Manawatu will fetch \$200 per tonne in the 1987/88 season.

**1.8.10 Rye-corn**

The price at present paid for rye-corn is in the vicinity of \$300 per tonne.

**1.8.11 Lentils**

Contracts for the 1987/88 harvest average \$400 per tonne (normally 75% payable on delivery) but may be as high as \$600 per tonne.

## 1.9 SMALL SEEDS

The price paid for small seeds is based on machine dressed weights which depend on the purity of the seed line. As at December 1987, many prices had not been finalised and those shown below are estimated values only, for first generation certified seed.

<b>Grass Seed:</b>	\$
Ruanui Ryegrass	1.20
Nui Ryegrass	1.20
Ariki Ryegrass	1.30
Manawa Ryegrass	0.90
Paroa Italian Ryegrass	0.80
Tama Ryegrass	1.20
Moata Ryegrass	1.20
Ellett Ryegrass	1.80
Apanui Cocksfoot	2.80
Wana Cocksfoot	3.00
Crested Dogstail	2.20
Matua Prairie Grass	1.40
Browntop	8.00
Fescue (lawn)	4.00
Roa Fescue	8.00
Phalaris	6.00
Kahu Timothy	3.50
Saborto Timothy	2.20
Massey Basyn (Yorkshire Fog)	3.50
<b>Yarrow:</b>	15.00
<b>Lotus:</b>	
Maku	18.00
Corniculatus	12.00
<b>Clover Seed:</b>	
Huia White	2.40
Pitau	2.40
Turoa Montgomery Red	3.00
Hamua Broad Red	2.80
Pawera	6.00
<b>Lucerne:</b>	
Wairau	4.50
<b>Kale:</b>	
Medium Stemmed	1.30-1.50
Giant	1.30-2.00

<b>Turnips:</b>	1.40
<b>Swedes:</b>	1.50
<b>Rape:</b>	
Rangi	2.00
Winifred	2.50

## 1.10 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 dependant on climate and its 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.

Auction price information is usually confidential and so it is very difficult for a publication such as this to obtain accurate prices for a range of fruit.

### **1.10.1 Retail Prices January to September 1987**

It must be emphasised that the following are **RETAIL** prices and are published as a **guide** to the variation in prices that occur and should only be used for **demonstration** purposes. **NOT** for accurate budgeting or comparison of enterprises.

	<u>Apples</u> per kg	<u>Apricots</u> per kg	<u>Avocados</u> each
January	\$1.30 -\$2.00	\$1.50 -\$3.00	\$1.10 -\$1.50
February	\$1.40 -\$2.00	89c	
March	\$1.25 -\$1.50	\$2.50 -\$3.00	\$1.39
April	\$0.60 -\$1.00	-	-
May	\$1.00 -\$1.20	-	\$1.95-\$2.00
June	\$0.70 -\$1.20	-	\$1.70-\$2.00
July	\$0.80 -\$1.30	-	\$1.00-\$1.30
August	\$1.00 -\$1.30	-	\$0.70-\$1.00
September	\$0.85 -\$1.30	-	-

	<u>Boysenberries</u> per punnet	<u>Grapes</u> per kg	<u>Nectarines</u> per kg
January	\$ 1.50-\$ 3.00	\$ 5.75-\$ 8.25	\$ 1.40-\$ 5.00
February	\$ 1.90-\$ 2.50	\$ 4.00-\$ 6.90	\$ 0.90-\$ 1.40
March	-	\$ 3.00-\$ 6.95	\$ 1.00-\$ 6.70
April	-	\$ 2.60-\$ 5.00	\$ 0.80-\$ 2.00
May	-	\$ 3.70-\$ 5.70	-
June	-	\$ 3.00-\$ 5.70	-
July	-	\$ 4.95-\$ 5.70	-
August	-	\$ 3.80-\$ 5.00	-
September	-	\$ 1.70-\$ 6.00	-

	<u>Nashi</u> per kg	<u>Lemons</u> per kg	<u>Peaches</u> per kg
January	-	\$ 1.68-\$ 2.60	\$ 1.50-\$3.60
February	-	\$ 2.00-\$ 2.40	\$ 1.20-\$1.80
March	-	\$ 2.00-\$ 3.50	\$ 0.45-\$1.20
April	60c	\$ 2.00-\$ 2.50	\$ 1.95-\$2.00
May	\$0.30 -\$1.50	\$ 2.00-\$ 2.80	-
June	\$0.30 -\$1.20	\$ 2.00-\$ 3.00	-
July	-	\$ 1.30-\$ 1.90	-
August	-	\$ 1.40-\$ 2.00	-
September	-	\$ 1.70-\$ 1.80	-

	<u>Raspberries</u> per punnet	<u>Plums</u> per kg	<u>Strawberries</u> per punnet
January	\$ 2.00-\$ 2.75	\$ 1.50-\$ 3.50	\$ 1.20-\$ 2.90
February	\$ 2.50-\$ 2.95	\$ 1.40-\$ 1.50	\$ 2.30-\$ 2.95
March	\$ 2.40-\$ 3.00	\$ 1.70-\$ 2.70	\$ 1.25-\$ 1.90
April	-	\$ 1.00-\$ 2.00	\$ 1.60-\$ 1.90
May	-	-	-
June	-	-	-
July	-	-	-
August	-	-	-
September	-	-	-

Source: "The Press" 1987 issues

### 1.10.2 Prices paid to growers at Auction - October to December 1987.

#### Auckland

	Unit	October	November	December
Apples	crate	\$17		
Avocados	tray	\$10.50	\$10.50	\$5.25
Lemons	bushell	\$9.20		\$12.30
Mandarins	bushell	\$11.20		
Peaches	tray			\$10.15
Plums	case			\$10.50
Raspberries	kg			\$11.50
Strawberries	kg	\$26.75	\$27.50	\$17.00
Tamarillos	case	\$13.00	\$6.00	

## Palmerston North

	Unit	October	November	December
Apricots	1/4 case			\$12.00
Avocados	tray	\$12.00	\$10.00	\$9.00
Kiwifruit	kg	\$0.80	\$1.00	
Lemons	bushell	\$9.00	\$3.50(8kg)	\$8.50
Mandarins	bushell	\$18.00		
Nectarines	tray			\$15.00
Oranges	bushell	\$16.00		\$15.50
Peaches	tray			\$4.00
Plums	case			\$6.00
Raspberries	punnet			\$1.90
Strawberries	punnet	\$2.40	\$1.75	\$0.95
Tamarillos	kg	\$2.00		

## Wellington

	Unit	October	November	December
Avocados	bushell	40c each	\$45.00	
Mandarins	case		\$17.00	
Strawberries	punnet	\$2.40	\$1.50	

## Christchurch

	Unit	October	November	December
Apricots	kg			\$3.50
Avocados	tray	\$18.00		\$10.00
Kiwifruit	kg	\$0.85		
Lemons	bushell			\$10.00
Mandarins	bushell			\$16.00
Nectarines	kg			\$3.25
Oranges	bushell	\$19.00		\$15.00
Peaches	tray			\$7.50
Plums	kg			\$1.25
Strawberries	punnet	\$2.85		\$1.10
Tamarillos	carton	\$12.00		

## Dunedin

	Unit	October	November	December
Apples	crate	\$18.00	\$18.00	
Apricots	kg			\$5.00
Avocados	each	\$0.75	\$18(tray)	\$0.60
Kiwifruit	carton	\$12.00	\$14.50	\$13(tray)
Lemons	carton	\$17.50	\$23.50	\$19(bushell)
Mandarins	carton	\$20.00		\$27.50
Nectarines	carton	\$22.15		
Oranges	carton	\$22.15	\$18.00	\$19.00
Peaches	tray			\$10.00
Pears	crate		\$34.00	
Strawberries	punnet		\$2.25	

Source: N.Z.Farmer 1987 issues

### 1.10.3 Prices for Export Nashi

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

### 1.10.4 Kiwifruit for Export 1986 and 1987 Prices

Price per tray 1986 season approx. \$9.80

Price per tray 1987 season \$6.00 to \$6.50

### 1.10.5 Apples for Export

As at January 17 1988 the estimated advance payments for export grade apples (based on 70% of final payout) were as follows:

Variety	Count Apples per carton	Price c per kg
Braeburn	64 & 72	5.59
	80 & 88	7.63
	100 & 113	8.80
	125 & 138	8.65
	150 & 163	6.60
Red Delicious	175 & 198	4.57
	64 & 72	3.67
	80 & 88	5.26
	100 & 113	5.90
	125 & 138	5.70

Variety	Count Apples per carton	Price c per kg
Red Delicious	150 & 163	5.26
	175 & 198	4.47
Sturmers	100 & 113	5.09
	125 & 138	5.61
	150 & 163	4.94
Royal Gala	80 & 88	7.68
	100 & 113	8.39
	125 & 138	7.85
	150 & 163	5.83
Coxs Orange	175 & 198	4.41
	80 & 88	7.44
	100 & 113	8.34
	125 & 138	8.86
	150 & 163	8.18
	175 & 198	5.84



## 1.11 VEGETABLE PRODUCTION

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 dependant 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 price information is usually confidential and so it is very difficult for a publication such as this to obtain accurate prices for a range of vegetables.

### **1.11.1 Retail Prices January to September 1987**

It must be emphasised that the following are **RETAIL** prices and are published as a **guide** to the variation in prices that occur and should be used for demonstration purposes only, **NOT** for accurate budgeting or comparison of enterprises.

	<u>Asparagus</u> per kg	<u>Beans</u> per kg	<u>Broccoli</u> per kg
January	\$ 4.95-\$ 5.00	\$ 1.50-\$ 5.60	\$ 2.95-\$ 3.00
February	-	\$ 1.50-\$ 3.60	\$ 3.50-\$ 4.90
March	-	\$ 1.70-\$ 3.00	\$ 2.50-\$ 5.60
April	-	\$ 2.40-\$ 2.50	\$ 0.95-\$ 3.00
May	-	\$ 6.00-\$ 8.00	\$ 1.00-\$ 3.00
June	-	\$ 4.00-\$ 6.00	\$ 3.00-\$ 3.60
July	-	\$ 4.95-\$ 9.90	\$ 2.60-\$ 3.20
August	-	\$ 5.90-\$ 7.90	\$ 2.95-\$ 4.00
September	\$ 1.20-\$ 8.00	\$ 6.00-\$ 7.00	\$ 3.30-\$ 7.00

	<u>Cabbage</u> each	<u>Carrots</u> per kg	<u>Cauliflower</u> each
January	\$ 1.00-\$ 1.65	\$ 0.75-\$ 1.50	\$ 0.60-\$ 2.00
February	\$ 1.00-\$ 1.40	\$ 1.00-\$ 1.30	\$ 1.00-\$ 3.00
March	\$ 0.80-\$ 1.00	\$ 0.95-\$ 1.00	\$ 0.65-\$ 1.60
April	\$ 0.60-\$ 1.00	\$ 1.00-\$ 1.10	\$ 0.70-\$ 1.50
May	\$ 0.50-\$ 0.70	\$ 0.60-\$ 0.90	\$ 0.50-\$ 1.00
June	\$ 0.50-\$ 0.60	\$ 1.00-\$ 1.80	\$ 0.40-\$ 0.50
July	\$ 0.50-\$ 0.70	\$ 0.95-\$ 1.00	\$ 0.50-\$ 0.80
August	\$ 0.50-\$ 0.80	\$ 1.00-\$ 1.30	\$ 0.60-\$ 1.00
September	\$ 0.50-\$ 0.90	\$ 0.90-\$ 1.20	\$ 0.80-\$ 1.00

	<u>Celery</u> per bunch	<u>Courgettes</u> per kg	<u>Cucumbers</u> per kg
January	\$ 1.00-\$ 3.00	\$ 1.00-\$ 4.00	\$ 0.50-\$ 1.00
February	\$ 0.90-\$ 1.40	\$ 1.70-\$ 2.00	\$ 0.95-\$ 1.30
March	\$ 0.85-\$ 1.30	\$ 0.90-\$ 1.75	\$ 0.50-\$ 1.90
April	\$ 1.00-\$ 2.00	\$ 1.50-\$ 3.00	\$ 1.00-\$ 1.90
May	\$ 0.75-\$ 1.50	\$ 6.60-\$ 8.00	\$ 0.90-\$ 1.00
June	\$ 0.50-\$ 1.80	\$ 5.00-\$ 6.30	\$ 0.80-\$ 1.20
July	\$ 0.50-\$ 1.30	\$ 4.95-\$ 5.80	\$ 1.00-\$ 1.30
August	\$ 1.40-\$ 1.20	\$ 2.00-\$ 6.00	\$ 1.30-\$ 1.50
September	\$ 1.00-\$ 1.60	\$ 3.00-\$ 8.00	\$ 0.90-\$ 2.50

	<u>Lettuce</u> per kg	<u>Marrow</u> per kg	<u>Onions</u> per kg
January	\$ 0.35-\$ 0.80	\$ 0.35-\$ 1.50	\$ 1.00-\$ 2.00
February	\$ 0.80-\$ 1.00	\$ 0.50-\$ 0.65	\$ 1.00-\$ 1.70
March	\$ 0.80-\$ 0.90	\$ 0.50-\$ 0.70	\$ 0.85-\$ 1.00
April	\$ 0.35-\$ 1.80	\$ 0.50-\$ 0.60	\$ 1.00-\$ 1.90
May	\$ 1.00	\$ 0.10-\$ 0.60	\$ 1.30-\$ 1.50
June	\$ 0.70-\$ 1.00	\$ 0.50	\$ 0.70-\$ 1.60
July	\$ 0.70-\$ 1.00		\$ 1.20-\$ 1.50
August	\$ 0.60-\$ 1.70		\$ 1.20-\$ 1.30
September	\$ 0.80-\$ 1.30		\$ 1.00-\$ 1.80

	<u>Parsnip</u> per kg	<u>Potatoes</u> per kg	<u>Pumpkin</u> each
January	\$ 2.90-\$ 3.00	\$ 0.70-\$ 1.00	\$ 0.80-\$ 2.00
February	-	\$ 0.70-\$ 1.00	\$ 1.50-\$ 2.30
March	\$ 1.60-\$ 2.50	\$ 0.70-\$ 0.90	\$ 1.00-\$ 1.30
April	\$ 1.70-\$ 2.70	\$ 0.70-\$ 0.90	\$ 0.70-\$ 1.00
May	\$ 1.50-\$ 2.00	\$ 0.50-\$ 1.00	\$ 0.45-\$ 1.00
June	\$ 1.00-\$ 2.00	\$ 0.30-\$ 1.00	\$ 0.40-\$ 0.60
July	\$ 0.70-\$ 1.10	\$ 0.70-\$ 1.00	\$ 0.65-\$ 0.70
August	\$ 0.95-\$ 1.00	\$ 0.70-\$ 1.00	\$ 0.80-\$ 1.00
September	\$ 0.90-\$ 1.00	\$ 0.60-\$ 0.80	\$ 0.70-\$ 1.00

	<u>Sweet Corn</u> per cob	<u>Tomatoes</u> per kg
January	\$ 0.35-\$ 0.50	\$ 1.00-\$ 2.50
February	\$ 0.20-\$ 0.40	\$ 1.00-\$ 1.95
March	\$ 0.35-\$ 0.40	\$ 1.70-\$ 2.50
April	\$ 0.20-\$ 0.35	\$ 2.00-\$ 3.00
May	\$ 0.20-\$ 0.45	\$ 2.00-\$ 5.00

	<u>Sweet Corn</u> per cob	<u>Tomatoes</u> per kg
June		\$ 3.60-\$ 4.00
July		\$ 2.95-\$ 6.00
August		\$ 4.95-\$ 6.00
September		\$ 6.00-\$ 8.40

Source: "The Press" 1987 issues

### 1.11.2 Prices paid to growers at Auction - October to December 1987.

#### Auckland

	Unit	October	November	December
Asparagus	case	\$8.70	\$8.90	\$20.80
Beans	kg	-	\$2.15	\$16.35
Broccoli	crate	\$13.15	\$4.20	-
Cabbage	bag	\$4.90	\$2.30	\$2.75
Carrots	20 kg	\$7.50	\$13.80	\$13.70
Cauliflower	case	\$6.80	-	\$8.90
Celery	case	\$5.90	-	\$10.45
Courgettes	carton	\$26.20	\$19.00	-
Cucumber	case	\$11.40	\$10.25	\$7.55
Lettuce	case	\$4.50	\$3.80	\$2.95
Onion	case	\$4.90	-	\$5.70
Parsnip	9 kg bag	\$6.80	\$9.15	-
Potatoes	sack	\$3.00	\$4.30	\$2.50
New Potatoes	sack	\$5.35	-	-
Pumpkin	carton	\$12.00	\$15.50	\$13.15
Tomatoes	case	\$22.40	\$12.25	\$7.30

#### Palmerston North

	Unit	October	November	December
Asparagus	kg	\$2.60	\$2.50	\$3.00
Beans	7kg	\$6.00	\$6.50	-
Broccoli	carton	\$9.00	\$7.00	\$2.50
Cabbage	each	\$0.30	\$0.15	\$0.16
Carrots	20kg	-	\$7.00	\$9.00
Cauliflower	each	\$0.40	\$0.45	-
Celery	per 9	-	-	\$15.00
Cucumber	1/4 case	\$0.60 each	\$0.50 each	\$4.00
Lettuce	each	\$0.15	\$0.25	\$0.10
Onions	bag	\$10.00	-	\$11.00

	Unit	October	November	December
Parsnip	20kg	-	\$14.00	-
Potatoes	20kg	\$1.60	\$1.30	\$1.30
New Potatoes	sack	\$5.00	-	-
Tomatoes	7kg	\$31.00	\$20.50	\$9.50

### Wellington

	Unit	October	November	December
Asparagus	kg	\$2.20	\$2.20	
Broccoli	crate	\$6.50	\$10.00	
Cabbage	case	\$4.00	\$3.50	
Carrots	20kg	\$6.00	\$10.00	
Cauliflower	case	\$4.00	\$6.00	
Celery	case	\$25.00	-	
Courgettes	kg	\$3.50	-	
Cucumber	each	\$0.50	-	
Lettuce	case	\$4.50	\$3.50	
Potatoes	sack	\$2.25	\$1.50	
New Potatoes	sack	\$6.50	\$6.50	
Pumpkin	bag	\$7.50	\$9.50	
Tomatoes	case	-	\$6.50	

### Christchurch

	Unit	October	November	December
Asparagus	kg	\$2.50	-	\$2.00
Beans	kg	-	-	\$3.50
Broccoli	bag	\$3.50	-	\$4.00(kg)
Cabbage	bag	\$2.60	-	\$0.35 ea
Carrots	20kg	\$10.00	-	\$27.00
Cauliflower	case	-	-	\$1.50
Celery	dozen	\$14.00	-	\$24.00
Courgettes	kg	\$4.00	-	\$3.00
Cucumber	each	-	-	\$0.60
Lettuce	case	\$5.00	-	\$0.50 ea
Onion	bag	\$12.50	-	\$11.00
Potatoes	sack	\$2.10	-	\$2.10
New Potatoes	10 kg	\$10.50(sack)	-	\$2.00
Pumpkin	kg	\$0.60	-	\$1.00
Tomatoes	kg	\$23.50	-	-

**Dunedin**

	Unit	October	November	December
Asparagus	kg	\$3.00	\$2.75	\$1.85
Beans	kg	\$4.50	\$5.00	-
Broccoli	carton	\$40.00	\$4.00(kg)	\$5.00(kg)
Cabbage	bag	\$3.50	\$3.50	\$3.25
Carrots	20kg	\$6.00	\$18.00	-
Cauliflower	carton	\$3.20	\$3.50	\$4.10
Celery	carton	\$13.50	-	\$29.00
Courgettes	carton	\$34.00	\$3.00(kg)	\$11.00
Cucumber	carton	\$12.50	\$0.90 ea	-
Lettuce	case	\$8.50	\$10.00	\$4.00
Onion	bag	\$13.00	-	\$15.00
Parsnip	9kg bag	\$5.50	-	-
Potatoes	sack	\$1.75	\$0.50(kg)	-
New Potatoes	sack	\$10.50	\$1.50(kg)	\$0.65(kg)
Pumpkin	kg	\$0.65	\$0.90	-
Tomatoes	carton	\$30.00	\$12.50(box)	-

Source: N.Z.Farmer 1987 issues

## **1.12 SUNDRY INCOME**

### **1.12.1 National Water and Soil Conservation Authority (NWASCA) Grants**

These grants are of two types and the prime function of both is to provide protection to both water and soil and not to promote the growing of timber.

#### **Protection Grants**

These vary in the grant payment, depending on the size of the project.

Any new works 35% (including isolated projects) until March 1988. Next year's position is still under review.

N.B. Any grant approved before the 1987 Budget continues at the percentage as at that time.

1. Up to a maximum of 40 percent of the project cost was available as a grant for isolated projects.
2. Up to a maximum of 60 percent in grant payment was payable for a farm scale projects.
3. Up to a maximum of 70 percent was payable as a grant if the project involved more than one property, i.e. there was a community interest and entire catchment was involved.

#### **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.

### **1.12.2 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.

Rate of refund is 8.9 cents per litre of petrol used, except for goods or passenger service vehicles, when the rate of refund is 2.5 cents per litre

#### Refund of Sales Tax on CNG and LPG

Sales tax on CNG and LPG is included in the purchase prices of the fuel. This sales tax may be refunded when the fuel is used:

- In vehicles over 3.5 tonnes which are subject to road user charges.
- In vehicles licensed as E Class A or E Class B.
- In unlicensed motor vehicles used commercially.
- For commercial purposes - not vehicles.

#### **Rates of refund:**

CNG - \$2.59 per gigajoule of CNG

LPG - 6.86 cents per litre of LPG





**SECTION 2**

**FARM EXPENSES**



## 2.1 ANIMAL HEALTH EXPENSES

### **2.1.1 Dips, Sprays and Dressings**

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<u>COOPERS</u>		
Bactas	500 g	\$ 20.33
Banmag	500 ml	\$ 19.43
Combat	5 litre	\$114.52
	20 litre	\$429.65
Diazotas 20%	20 litre	\$239.27
Grenade	2 litre	\$ 99.72
	5 litre	\$232.75
	20 litre	\$863.07
Trigon DFF	5 litre	\$276.33
	10 litre	\$737.10
Supreme DFF	5 litre	\$398.32
	10 litre	\$786.61
Decacide	2 litre	\$ 60.29
	5 litre	\$144.45
Warbex	1 litre	\$ 41.98
	5 litre	\$195.36
Wipe-out	5 litre	\$146.81
	20 litre	\$570.94
<u>Pour-Ons</u>		
Decacide NF	2 litre	\$ 60.29
	5 litre	\$114.45
Wipe out	1 litre	\$ 36.54
	5 litre	\$146.81
Warbex	1 litre	\$ 41.98
	5 litre	\$195.36
<u>VETCO PRODUCTS LIMITED (GST inclusive)</u>		
Copaderm - treatment of wounds and skin conditions	13.5g	\$ 9.00
Flea Ban 30 - Flea powder	110 g	\$ 6.54
Padaid Paint - Foot probs, dogs	120 ml	\$ 7.68
Vetadine PVP Iodine Aerosol	150 g	\$ 9.64
Vet Nuvan - Flea, lice tick spray	170 g	\$ 7.57
Vioform Aerosol - Footrot, wounds	150 g	\$ 7.66
<u>FARMERS FERTILISER LTD</u>		
Redene Diazinon 40	10 litre	\$184.80
	5 litre	\$ 95.40
<u>FIL</u>		
Footrot aerosol	300 ml	\$ 8.85
Formalin	5 litre	\$ 14.60

	20 litre	\$ 46.00
Flystrike dressing	2 litre	\$ 15.40
	5 litre	\$ 31.96
	20 litre	\$121.00
Flystrike dressing (Aerosol)	340 gm	\$ 8.60
Flystrike powder	350 gm	\$ 6.40
Stock Iodine (2.5%) sprayer	500 ml	\$ 8.90
	1 litre	\$ 10.00
	20 litre	\$160.00
Stock Iodine (10%)	2 litre	\$ 53.40
	20 litre	\$466.80

### 2.1.2 Sheep Drenching Guide

<u>Type of Animal</u>	<u>Weight Range</u>	<u>Dose Rate</u>	<u>Cost (c) at</u>
		(Thibenzole)	<u>1.65c/ml</u>
Sheep	Up to 22kg	4.0 ml	6.6
	23 - 35kg	6.0 ml	9.9
	over 35 kg	8.0 ml	13.2

		<u>Dose Rate</u>	<u>Cost (c) at</u>
		(Ivomec Liquid)	<u>3c/ml</u>
Sheep/Goats	9 - 12 kg	3 ml	9.0
	13 - 16 kg	4 ml	12.0
	17 - 20 kg	5 ml	15.0
	21 - 24 kg	6 ml	18.0
	25 - 28 kg	7 ml	21.0
	29 - 32 kg	8 ml	24.0
	33 - 36 kg	9 ml	27.0
	37 - 40 kg	10 ml	30.5
	41 - 50 kg	12.5ml	37.5
	51 - 60 kg	15 ml	45.0
	under 9 and over 60 kg 1ml per 4kg @ 3c/ml		

### 2.1.3 Cattle Drenching Guide

<u>Type of Animal</u>	<u>Weight Range</u>	<u>Dose Rate</u>	<u>Cost (c) at</u>
		(Ranide)	<u>1.6c per ml</u>
Cattle	up to 50 kg	12.5 ml	20.0
	51 to 100 kg	25.0 ml	40.0
	101-200 kg	37.5 ml	60.0
	201-300 kg	50.0 ml	80.0
	over 300 kg	50.0 ml + 12.5ml/50kg	

		<u>Dose Rate</u> (Ivomec Oral)	<u>Cost (c) at</u> <u>29c per ml</u>
Cattle	40 - 60 kg	3 ml	87.0
	61 - 80 kg	4 ml	116.0
	81 - 100kg	5 ml	145.0
	over 100kg	1 ml/20kg	

### 2.1.4 Anthelmintics Cost

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<u>COOPERS</u>		
Nilverm Oral front pack	1 litre	\$ 30.72
Nilverm Oral	5 litre	\$ 94.45
	12 litre	\$212.17
	24 litre	\$411.93
	45 litre	\$736.15
	6 x 625 ml	\$437.36
Nilverm Concentrate	500 ml	\$ 28.81
Nilverm Pig Wormer	200 g	\$ 17.31
	1 kg	\$ 67.16
	20 kg	\$1056.58
Nilzan front pack	1 litre	\$ 41.90
Nilzan	5 litre	\$155.98
	12 litre	\$359.95
	20 litre	\$564.80
	1 litre	\$ 23.26
Panacur	5 litre	\$ 91.40
	25 litre	\$440.54
	10 litre	\$226.87
Systemex	25 litre	\$498.95
	2.5 litre	\$210.74
<u>MSD AGVET (GST inclusive)</u>		
Ivomec Liquid (Sheep)	5 litre	\$189.35
	20 litre	\$637.50
Ivomec Injection (Cattle)	200 ml	\$141.11
	500 ml	\$317.53
	1 litre	\$293.66
Ivomec Injection (For Swine)	100 ml	\$ 74.05
Eqvalan Paste	1 syringe	\$ 13.66
Thibenzole (Sheep, Cattle and Facial Eczema)	20 litre	\$354.60
Ranide (Sheep and Cattle)	20 litre	\$275.41
Valbazen (Sheep/lamb)	25 litre	\$355.90
<u>FARMERS FERTILISER LIMITED</u>		
Mineralised Telmin RLT	5 litre	\$ 95.70
	20 litre	\$356.40
	25 litre	\$412.50
Telmin RLT		

BELL-BOOTH

Nutrimol	5 litre	\$ 45.00
	20 litre	\$165.00

PFIZER

Exhelm E	5 litre	\$ 81.60
	20 litre	\$311.23
	30 litre	\$461.34

**2.1.5 Vaccines**

Bl = Blackleg, MO = Malignant Odema, T = Tetanus, PK = Pulpy Kidney, BD = Black Disease.

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
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COOPERS

Nilvax	500 ml	\$ 44.62
	2000 doses	\$713.92
Multine 5	100 ml	\$ 10.91
	200 ml	\$ 19.39
	500 ml	\$ 43.63
Multine 4	200 ml	\$ 18.41
	500 ml	\$ 41.44
Covax 5	200 ml	\$ 19.39
	500 ml	\$ 43.63
PK Tet	200 ml	\$ 12.91
	500 ml	\$ 26.96
BL-MO	200 ml	\$ 10.93
	500 ml	\$ 24.84
PK	500 ml	\$ 18.49
	200 ml	\$ 28.48
PK Antitet	500 ml	\$ 64.39
	150 dose	\$ 12.41

MSD AGVET (1987 prices, new prices not available at time of print)

5-In-One	100 ml	\$ 11.06
	200 ml	\$ 18.39
	500 ml	\$ 36.79
	1000 ml	\$ 66.26
Trip-Tet	Thermo-Vac (6 x 500 ml)	\$209.59
	100 ml	\$ 9.73
	200 ml	\$ 16.13
	500 ml	\$ 32.26
	1000 ml	\$ 58.08
Triple	Thermo-Vac (6 x 500 ml)	\$183.60
	200 ml	\$ 14.40
	500 ml	\$ 28.73

Prices Exclude GST

PK-Tet	200 ml	\$ 10.80
	500 ml	\$ 21.60
BL-MO	100 ml	\$ 8.00
	200 ml	\$ 11.33
	500 ml	\$ 22.60
PK	100 ml	\$ 7.00
	200 ml	\$ 30.33
	500 ml	\$ 60.67
	1000 ml	\$109.20
PK-ATS	100 ml	\$ 18.20
	200 ml	\$ 30.33
	500 ml	\$ 60.67
	1000 ml	\$109.20
	Thermo-Vac (6 x 500 ml)	\$344.00
	Scabby Mouth 125 cc	\$ 5.30
	250 cc	\$ 9.35

### 2.1.6 Antibiotics

\* Sole outlet for these products is VETERINARIAN ONLY.

#### Farmers Fertiliser

Redene Zinc Sulphate (Footrot)	25 kg	\$ 33.00
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### 2.1.7 Disinfectants

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<u>VETCO</u> (GST inclusive)		
Anisep	2 litre	\$ 14.16
	5 litre	\$ 32.19

#### COOPERS

Formalin	20 litre	\$ 49.11
	200 litre	\$358.77
Savlon	5 litre	\$ 27.03
Hibitane MCC	5 litre	\$ 43.53
	25 litre	\$200.83
Hibitane MCC Plus	5 litre	\$ 51.15
	25 litre	\$233.13

#### FARMERS FERTILISER LIMITED

Syvel	5 litre	\$ 23.40
	20 litre	\$ 86.40
	200 litre	\$756.00
Pinol Antiseptic Deodorant	5 litre	\$ 18.00
	20 litre	\$ 60.00

### 2.1.8 Bloat Control

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<u>COOPERS</u>		
Bloateric 2 in 1	20 litre	\$167.50
Blogon	20 litre	\$150.00
Bloatbloc	15 kg	\$ 41.46

### FARMERS FERTILISER LIMITED

Redene Bloataid Dual	5 litre	\$ 36.00
	20 litre	\$ 122.40
	60 litre	\$ 334.80
	200 litre	\$1020.00

### KLENZADE

Bloatenz Two in One	20 litre	\$ 99.00
	200 litre	\$875.00
Bloatenz plus	4x5 litre plus	\$ 117.20
	20 litre	\$ 104.00
	200 litre	\$920.00

### 2.1.9 Dairy Ointments, Soaps and Teat Sprays

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<u>KLENZADE</u>		
Blu Gard	5 litre	\$ 36.00
	20 litre	\$ 123.00
	200 litre	\$1150.00
Teat Guard	5 litre	\$ 36.00
	20 litre	\$ 123.00

### FARMERS FERTILISER LTD

Redene Teat Dip and Spray	5 litre	\$ 31.25
	20 litre	\$ 115.20
	200 litre	\$1104.00
Redene Teatspray Plus	5 litre	\$ 43.20
	20 litre	\$ 162.00
	200 litre	\$1512.00
Redene Udder Cream	700 g	\$ 8.16
	4 kg	\$ 30.72
	8 kg	\$ 59.52

### COOPERS

Hibitane Dairy Cream	3.5 kg	\$ 21.89
	17 kg	\$ 93.59



## 2.1.10 Dairy Shed Hygiene - Detergents and Sanitizers

### FARMERS FERTILISER

Redene Iodophor Sanitiser	5 litre	\$ 25.50
	20 litre	\$ 87.60
	200 litre	\$ 806.40
Redene Lo-Count Acid	5 litre	\$ 24.60
	20 litre	\$ 88.80
	200 litre	\$ 828.00
Redene Lo-Count Alkali	4.5 kg	\$ 23.50
	10 kg	\$ 49.20
	20 kg	\$ 92.40
Redene Milkstone Remover	5 litre	\$ 22.80
	20 litre	\$ 87.60
Redene Milkstone Remover HAF	5 litre	\$ 31.50
	20 litre	\$ 122.40
Redene Non Ionic Rinse	5 litre	\$ 16.80
	20 litre	\$ 57.60
	200 litre	\$ 504.00

### KLENZADE

Klenz Iodophor - sanitizer	4x5 litre	\$ 82.00
	20 litre	\$ 73.80
	200 litre	\$ 694.20
Iodovat - kold klenz	4x5 litre	\$ 107.00
	20 litre	\$ 96.35
	200 litre	\$ 898.00
Q Klenz - sanitizer and cleanser	4x5 litre	\$ 90.20
	20 litre	\$ 82.00
	200 litre	\$ 767.00
Low Foam Q Klenz	4x5 litre	\$ 90.20
	20 litre	\$ 82.00
	200 litre	\$ 767.00
Klenz All Temp	4x5 litre	\$ 92.00
	20 litre	\$ 84.00
	200 litre	\$ 786.00
Klenzphos H.C.- milk stone remover	4x5 litre	\$ 106.00
	20 litre	\$ 95.30
	200 litre	\$ 888.00
Stainless Steel Detergent	4x5 kg	\$ 75.40
	20 kg	\$ 70.00
Tri Klenz - alkaline cleaner	20 litre	\$ 70.00
Kleer Klenz - alkaline cleaner	4x5 kg	\$ 84.00
	20 kg	\$ 75.55
Liquid Super Klenz	4x5 litre	\$ 76.00
	20 litre	\$ 87.80

Klenzaid Non-ionic Rinse	20 litre	\$ 50.40
	200 litre	\$ 462.00

**NOTE:** Klenzade (Economic Services Laboratory) have a refund on Returned Empty Containers in good condition:  
200 litre - \$30.00 (Plastic Drums only)

IVON WATKINS-DOW

Concentrated Mycorinse detergent	5 litre	\$ 21.65
	20 litre	\$ 82.80
	180 litre	\$ 691.20
Low Foam Mycosan dairy sanitizer	5 litre	\$ 26.60
	20 litre	\$ 101.40
	180 litre	\$ 846.00
Mycosan S dairy sanitizer	5 litre	\$ 26.60
	20 litre	\$ 101.40
	180 litre	\$ 846.00
Mycorinse detergent	5 litre	\$ 12.80

**2.1.11 Metabolics**

<u>Product</u>	<u>Unit Size</u>	<u>Retail Price</u>
<u>COOPERS</u>		
Boromag Plus	350 ml	\$ 4.61
	450 ml	\$ 7.39
Borophos	450 ml	\$ 10.15
Calcium Borogluconate	350 ml	\$ 3.93
	450 ml	\$ 5.10
Sulphamag	350 ml	\$ 3.14
Calcium Borogluconate 50% (sheep)	100 ml	\$ 3.06

**2.1.12 Animal Health Equipment**

<u>Product</u>	
<u>FARM-ACY (1987 Prices)</u>	
Footrot Shears - Arnolds	\$ 45.85
Cattle Trocar - Relieving Bloat	\$ 15.00

COOPERS

Coopers Drench Gun	12.5 ml	\$ 65.80
Drench Back Pack	5.0 litre	\$ 20.33
P20 Drench Gun Auto	20.0 ml	\$100.02
P20 Injector Attachment	each	\$ 10.55
Needles 16 x 1/2 luer	100's	\$ 20.66
18 x 3/8 luer	dozen	\$ 4.70
18 x 3/8 record	dozen	\$ 4.70
Flutter Valve	each	\$ 2.76

Prices Exclude GST

Vaxigun 5ml Adjustable	each	\$ 11.23
P74 Vaccinator Auto	5 ml	\$ 55.50

### DRENCH GUN SERVICES

Duomatic Drench Gun	15ml	\$98.89
Duomatic Pour-on Gun		\$98.89
12.5 Minijector		\$73.38
P120 Drench Gun (complete)		\$153.90
Rumen Injector		\$103.13
S20 Drench Gun (complete)		\$115.13
S60 Drench Gun (complete)		\$127.76
5ml Disposable	each	\$12.35
15ml Vaxmaster (complete)	each	\$106.97
Conversion Kits	each	\$2.42
Also sell a large range of repair kits. average price \$11.00		

P74 5ml Vaccinator	each	\$61.05
PAS Vaccinator	each	\$67.00

### **2.1.13 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	\$ 18.50
	Routine work and consultation	\$ 74.00/hr
Ram Bleeding and Palpation - visit free		\$ 3.80/hd
Cow Pregnancy Testing - visit fee plus		\$ 1.25/hd
X-Rays - 1st plate		\$ 26.00
	- Additional plates	\$ 6.00
Anaesthetic Initial Dog	- Intravenous	\$ 17.00
	- Gas (usually both)	\$ 25.00
Surgical Fee (Applies to Farm work)		\$ 112.00/hr
Dog castration		\$ 67.50
Dog spey		\$110 - \$150.00/hr
Extra fee for vaccination on above		\$ 12.00
Dog Vaccination	- 8 weekly	\$ 18.80
	- 12 weekly	\$ 23.80
	- 16 weekly	\$ 18.80
	- yearly	\$ 23.80
Deer TB or Velveting \$74/hr. plus 20c/head. plus equipment		

## 2.2 FEED AND NUTRITION COSTS

### 2.2.1 Milk Replacers and Supplements

Denkavit	20 kg	\$52.80
Reliance	20 kg	\$51.09
Ancalf	20 kg	\$52.80

#### PFIZER

Calf Milk Supplement	25 kg unit (5x5kg)	\$186.09
Veal Milk Supplement	25 kg unit (5x5kg)	\$252.51
Dairy/Beef 510	25 kg bulk	\$ 87.50

### 2.2.2 Concentrates

#### D.H. BROWN AND SON LIMITED

#### **Cattle**

	Tonne Rate
	<u>\$ Bulk</u>
Calf Growa	345.90
Dairy Ration/Crumble	235.21
Beef Finisher	253.22
Barley Meal	214.39

#### **Sheep**

	<u>Pack Size</u>	Tonne Rate	<u>Per sack</u>
		\$ Bulk	\$
Sheep Nuts	40 kg	244.71	12.83
Hogget Grower Nuts	40 kg	244.71	12.83

#### **Pigs**

	<u>Pack Size</u>	Tonne Rate	<u>Per sack</u>
		\$ Bulk	\$
Piglet Starter Crumb.	40 kg	568.55	27.64
Weena Growa Pellets	40 kg	400.00	19.76
Porker Pellets	40 kg	364.62	19.58
Baconer Pellets	40 kg	319.12	16.74
Fortified Pig Nuts	40 kg	316.15	16.64
Pig Supplement Meal	40 kg	714.42	34.46

#### **Deer**

Deer Nuts (40 kg)	\$14.26	Bulk per tonne	\$282.44
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#### **Goats**

Goat Ration (30 kg)	\$10.05	Bulk per tonne	\$244.92
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#### **Horses**

Horse Pellets (40 kg)	\$16.42	Bulk per tonne	\$329.39
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Prices Exclude GST

## **Rabbits**

Ration No. 1 (40 kg)                      \$15.65                      Bulk per tonne                      \$325.74

## **PFIZER**

### **Pig**

#### **Creep premix**

Pfistart-10                      25 kg (5x5kg)                      \$146.90

Tasmix Creep                      25 kg (10x2.5kg)                      \$137.35

#### **Weaner/Grower Premix**

Pfigrow                      25 kg (10x2.5kg)                      \$251.86

#### **Grower/Finisher Premix**

Pfipork-60                      25 kg (10x2.5kg)                      \$179.43

Tasmix grower/finisher                      25 kg bulk                      \$154.76

#### **Breeder**

Pfbred-20                      25 kg (10x2.5kg)                      \$265.08

Tasmix Hi-breed Sow                      25 kg bulk                      \$209.11

Tasmix Pig Breeder                      25 kg bulk                      \$132.06

### **2.2.3 Hay and Straw**

Depends on area, season and quality.

1987/88 prices in Canterbury for average to good quality bales are approximately as follows:

Hay:                      Lucerne                      \$3.50 to \$6.00 per bale

                                 Meadow                      \$2.50 to \$4.00 per bale

Straw:                      Pea                      \$1.50 to \$2.50 per bale

                                 Ryegrass                      \$1.00 to \$2.00 per bale

                                 Barley                      \$1.00 to \$1.50 per bale

### **2.2.4 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 1987/88 are approximately 15c to 50c/head/week for sheep, and \$1.50 to \$4.00/head/week for cattle.

### **2.2.5 Poultry Feeds**

#### **D.H. BROWN AND SON LIMITED**

	<u>Pack Size</u>	<u>Tonne Rate</u> <u>\$ Bulk</u>	<u>Per sack</u> <u>\$</u>
<b>Chick Feeds</b>			
Chick Mash	40 kg	345.00	17.35
Chick Pex	40 kg	346.50	17.39
<b>Growers Feeds</b>			
Grower Mash	40 kg	280.00	14.30

Grower Pex/Pellets	40 kg	281.50	14.34
<b>Layer Feeds</b>			
H.E. Layer Mash	40 kg	291.00	14.78
H.E. Layer Pex/Pellets	40 kg	292.50	14.86
Layer Mash	40 kg	280.00	14.30
Layer Pex/Pellets	40 kg	281.50	14.35
<b>Hi Grain Feeds</b>			
Starter Crumbles plus Coccidiostat	40 kg	462.00	22.85
Finisher Crumbles No 1 plus Coccidiostat	40 kg	428.00	21.20
Finisher Crumbles No 2 plus Coccidiostat	40 kg	418.00	20.75
Finisher Crumbles No 3	40 kg	395.00	19.66
<b>Turkey Feeds</b>			
Pre-Starter	40 kg	555.00	27.20
Starter Crumbles	40 kg	525.00	25.75
Grower Pellets	40 kg	455.00	22.45
Finisher Pellets	40 kg	405.00	20.10
Developer Pellets	40 kg	295.00	15.00
Breeder Pellets	40 kg	320.00	17.30
Male Breeder Pellets	40 kg	345.00	16.15

## 2.2.6 Salt and Salt Blocks

### DOMINION SALTS

<u>Product</u>	<u>Grade</u>	<u>Description</u>	
Salt	10	Bulk Coarse (tonne)	\$191.93
	11	Crushed Coarse (tonne)	\$238.26
	12	Refined Crushed Coarse (tonne)	\$246.26
Summit Salt Blocks	Multi Mineral		\$13.88
20kg blocks		Copper Cattle	\$13.50
		Copper Sheep	\$13.31
		Magnesium	\$15.63
		Just Salt	\$13.19
		Rumevite Mineralised	\$13.70
		Rumevite Magnesium	\$15.75
		Tomoana Copper	\$13.25
Loose Mixes	Multi mineralised salt mix		\$31.25
40kg Bags	Magnesium salt mix		\$37.50

## 2.2.7 Pig Rations

For ready mixed pelleted feeds see Section 2.2.2.

**Prices Exclude GST**

**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 \$170 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

**PFIZER**

**Creep premix**

Pfistart-10 25 kg (5x5kg) \$146.90

Tasmix Creep 25 kg (10x2.5kg) \$137.35

**Weaner/Grower Premix**

Pfigrow 25 kg (10x2.5kg) \$251.86

**Grower/Finisher Premix**

Pfpork-60 25 kg (10x2.5kg) \$179.43

Tasmix grower/finisher 25 kg bulk \$154.76

**Breeder**

Pfbred-20 25 kg (10x2.5kg) \$265.08

Tasmix Hi-breed Sow 25 kg bulk \$209.11

Tasmix Pig Breeder 25 kg bulk \$132.06

**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
Fish Meal	4.0	2.0	-
Minerals/Vitamins	0.5	0.5	0.5

## 2.3 STOCK MANAGEMENT

### **2.3.1 Mating Management Aids**

#### Product

#### DONAGHY'S

Stafix Ram Harness	\$20.85
Ram Crayon Clips	\$ 1.10
Stafix Ram Crayons - Soft or Hard	\$ 2.95
Stafix Goat Harness	\$24.80

### **2.3.2 Productivity Improvers**

#### COOPERS

Ralgro (Beef)	240 dose	\$ 683.12
Starter Pack (120 doses + Ralogun)		\$ 406.95
Ralgro Implanter		\$ 71.75
Ralgro Needles	6's	\$ 13.98

### **2.3.3 Tailing and Marking Requisites**

#### ALLFLEX

Earmarkers (Rim cuts)	- sheep	\$42.00 - \$234.50
	- cattle	\$61.55 - \$141.50
Sheep and Goat Daroux Emasculator		\$97.50
Age marker	- double cattle	\$98.50
	- double sheep	\$74.50
	- single cattle	\$69.00
	- single sheep	\$46.00

#### HURRICANE

Pipe Dock Pen. Pen Size 3.6 m x 2.45 m		
	Double sided	\$491.28
	Single sided	\$442.26
	3.66 m Panel	\$ 72.03
	2.45 m Panel	\$ 58.59

#### HAYES

Cradle - Stevlyon Lamb	\$ 72.37
Cradle Stevlyon Lamb-Multi	\$543.84

#### CYCLONE

Complete pen with single sided race	\$398.25
Complete pen with double sided race	\$494.01
Extra plain panel	\$ 58.16
Extra panel with drafting gate	\$ 85.66
Extra race gate	\$ 23.83



### 2.3.4 Raddles and Markers

#### VEICO PRODUCTS LTD

Top Mark - Aerosol spray	170 g	\$ 3.85
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#### DONAGHY

Sprayline Aerosol Marker	170 g	\$ 4.30
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	400 g	\$ 7.20
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Brightline Stick Raddle	20/box	\$18.75
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#### FIL

Chalk Raddle	Chalk marker for livestock (dozen)	\$12.00
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Clearmark	Aerosol stock marker - 340gm	\$ 6.00
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Cow Tail paint	1 litre	\$ 8.80
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### 2.3.5 Stock Identification

#### Eartags

#### ALLFLEX PLASTIC

<u>Product</u>	<u>Blank</u>	<u>Numbered</u>	<u>Lettered</u>
Small male	24c	30c	32c
Small female	20c		
Medium male	31c	41c	
Medium female	28c	38c	
Hog female	28c	38c	
Large male	41c	54c	
Large female	38c	51c	
Maxi female	51c	64c	
Neck tag		1.03 (1 side)	
		1.15 (2 side)	
Farm-acy Brass Tag	17c	17c	25c
Farm-acy Nickel Tag	27c	27c	35c
Ankle straps - Caution			\$ 3.20
- Dry Cow			\$ 3.20
Retractable Applicator			\$49.00
Total Tagger			\$22.50
Retractable Applicator Spare Pin			\$ 4.50
Broad Tip Tag Pen (Black only)			\$ 4.50
Fine Tip Tag Pen (Black only)			\$ 3.95
Total Tagger Applicator			\$22.50
Spare pins			\$ 1.95
Farm-acy Closing Pliers			\$16.50

#### TALBOT PLASTICS LTD.

#### Ritchey Ear Tags

Sheep - Blank	35c
- Printing	add 12-24c
- Tail	add 12c

Cattle	- Blank	55c
	- Printing	add 12-24c
	- Tail	add 12c
Marking Fluid	per bottle	\$ 2.50

### **Brands and Tattoos**

#### AGRISALES

##### Stone Tattoo Sets

Standard Tattoo set		\$ 85.00
Revolving Head Tattoo set		\$ 89.50
Tattoo Digit set 0-9		\$ 26.75
Tattoo Digit set A-Z		\$ 74.50
Tattoo Ink	- green paste	\$ 16.75
	- black roll-on	\$ 18.30

### **2.3.6 De-horning**

#### ALLFLEX

Farm-acy calf dehorner		\$ 35.00
Farm-acy yearling dehorner		\$225.00

### **2.3.7 Scales**

#### HAYES

Cattle Weighing platform	1000 kg	\$1000.00
	1500 kg	\$1318.00
Cattle weigh pltfm with 3pt Link	1000kg	\$1164.00
Sheep Weighing platform (squeeze)	- swing gate	\$ 999.48
	- drop gate	\$1012.00
Sheep/Pig Weighing platform	- crate	\$ 920.83
	- bare	\$ 723.00
Hayes Weigher Deer		\$1100.00
Hayes Handler - Sheep		\$ 980.00
Hayes Handler - Goat Conversion Kit		\$ 120.00

#### DONALDS

XP Sheep Goat Platform		\$ 154.00
Draftmaster Crate (to fit above platform)		\$ 761.00
XP Cattle Platform 2.1 x .840 (Incl. rubber mat)		\$430.00
XP Loadbars		\$1706.00
XP Indicator (memory)		\$1669.00
XP Field Printer		\$695.00
Cattle weigh crate (No platform required)		\$2001.00
Medium crate (ideal for calves)		\$823.00
Deer Weigh Crate 3-Way Draft		\$1348.00

## AGRISALES (Wrightson-Dalgety)

**Note:** Prices include GST

Cattle Scale	- 2 x Loadbar and Indicator	\$3419.90
	- 2 x Loadbar, Indicator and Memory	\$3725.70
Sheep/Goat crate with Indicator		\$3547.50
	with Indicator and Memory	\$3854.40
Printer		\$ 924.00
Cattle Platform		\$ 476.30
Weighing and Drafting Crate(Complete with load cell)		\$2100.00
Pig Crate (Complete with load cell)		\$2273.00

### **2.3.8 Animal Crushes**

#### DONALDS

Squeeze Cattle Crush (sliding gate walk-thru head bail)		\$3211.00
Sliding Gate		\$ 314.00
Head Bail Automatic Walk-through		\$ 993.00
Head Bail Gate Type		\$ 592.00
Baulk gate		\$ 172.00

#### HAYES

Cattle Head Bail		\$477.16
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#### CYCLONE

Head Bail		\$725.48
Lifting Arm Extra		\$ 31.11

### **2.3.9 Dog Registration and Hydatid Control Fees**

These vary depending on the Local Body involved. Some examples of Local Body fees are:

Horowhenua County Council	\$31.00
Manawatu County Council	\$33.00
Palmerston North City Corp.	\$30.00
Paparua County Council	\$39.00

### **2.3.10 Kennels, Shelters, Motels**

#### McALPINES

**Note:** Prices are as at November 1987 and include GST

3 Bay ply Baa-Tel	\$490.00
A Frame Dog Kennel with front	\$ 66.00
Single Dog Motel (Plywood)	\$ 68.20
Large Single Dog Motel (Plywood)	\$105.00
3 Berth Dog Motel (Plywood)	\$242.00

## 2.4 BREEDING EXPENSES

### **2.4.1 Artificial Breeding Fee (Canterbury)**

#### Premier Sires

First 100 Cows	\$6.50/cow semen + \$5.49/insem. service fee
Second 100 Cows	\$6.50/cow semen + \$4.39/insem. service fee
Third 100 Cows	\$6.50/cow semen + \$3.51/insem. service fee
Fourth 100 Cows	\$6.50/cow semen + \$2.81/insem. service fee
Thereafter	\$6.50/cow semen + \$2.25/insem. service fee

#### Nominated Service

Semen price range from \$6.00 - \$155.00 for overseas sires

Service Fee:	First	100 cows	\$5.49/insemination
	Second	100 cows	\$4.39/insemination
	Third	100 cows	\$3.51/insemination
	Fourth	100 cows	\$2.81/insemination
	Thereafter	100 cows	\$2.25/insemination

Can also have:

Special-Pak (SP)	\$4.50	-\$5.25/dose
Pic Pak	\$5.00	-\$8.50/dose
Easier - Calving Bull		\$6.50/dose
Bulk semen purchase (minimum 300 doses)		\$3.50/dose
Autumn Special		\$5.50/dose
Beef Pak		\$3.00/dose

#### D.I.Y. Service with Frozen Semen:

No charge for packing and dispatch for nominated or other frozen semen option if order received 30 days prior to delivery.

Late orders - \$15 per dispatch plus freight and nitrogen

Ex store - \$15 per dispatch plus freight and nitrogen at cost.

A complete AB kit is available for \$140.00

Training: Artificial Insemination Training is available to farmers on a restricted basis at a cost of \$250 plus accomodation.

### **2.4.2 Herd Testing Charges (Canterbury)**

#### Standard Testing (Sampling Officer Present During Milking)

	<u>Herd Fee plus</u>		<u>Per cow service</u>
Monthly option	\$307.00	plus	\$16.25 per cow
6 weekly option	\$282.00	plus	\$14.14 per cow
8 weekly option	\$218.00	plus	\$11.00 per cow
Triple test	\$181.00	plus	\$ 7.50 per cow
Double test	\$140.00	plus	\$ 6.49 per cow

Self Sampling Testing:			
Monthly Option	\$307.00	plus	\$13.08 per cow
6 weekly option	\$282.00	plus	\$11.38 per cow
8 weekly option	\$218.00	plus	\$ 9.05 per cow
Triple test	\$181.00	plus	\$ 6.10 per cow
Double test	\$140.00	plus	\$ 5.02 per cow
 Milk records	 \$140.00	 plus	 \$ 4.80 per cow

**Somatic Cell Counting:**

Only available in conjunction with milkfat testing. additional cost per cow is \$1.90

**2.4.3 Herd Recording Services**

For non herd testing or group A.B. members who wish to keep their records up to date this season the charge for the herd recording service is \$1.50/cow.

**2.4.4 Animal Plan**

This is the MAF national performance and pedigree recording system. At the time of compilation, our understanding is that the four stock recording programmes administered by MAFTech namely Sheep Plan, Beef Plan, Goat Plan and Deer Plan will be under the umbrella title 'Animal Plan' and based at Ruakura Agricultural Research Station. At present all costs are under review and are not available for publication.

**2.4.5 Sire Replacement**

Rams

The following figures are the approximate values for flock rams.

Dorset Down	\$250
South Dorset Down	\$150-200
South Suffolk	\$250
Suffolk	\$250
Romney	\$250
Corriedale	\$100-200
Perendale	\$100-250
Border Leicester	\$200-250
Borderdale	\$150-250
Coopworth	\$200-300

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 \$2500 for red deer. The range would be from \$1500 for younger animals up to \$15 to 20.000 for imported or Wapiti cross stags from proven studs.

### Bucks

Pure bred Angora - Average price paid in December 1987 for mature stock ranged from \$100 to \$250 depending very much on the blood lines and desired features.

Cashmere - \$500 to \$1000 (suitable for Cashgora breeding)

## 2.5 DAIRY FARM EXPENSES

### 2.5.1 Per Cow Costs

Dairy farm 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:

- Animal Health Expenses - \$18.00 to \$28 per cow  
(i.e. bloat, magnesium, mastitis, vet., facial eczema etc)
- Dairy shed expenses - \$11.00 to \$16.00 per cow  
(i.e. detergent, rubberware, filters etc)
- Electricity - \$12.00 to \$20.00 per cow  
(mainly hot water for shed)
- Feed - South Island - \$80.00 to \$100.00 per cow  
- North Island - \$40.00 to \$50.00 per cow

### 2.5.2 Dairy Shed Equipment

#### ALFA-LAVAL

Cup Removers	\$544
Diagnostic Recorder	\$2860

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

	HP 102	EP 100
Highline 10 Unit	\$ 4757.00	\$ 6044.00
14 Unit	\$ 6539.00	\$ 8288.00
18 Unit	\$ 8327.00	\$ 9416.00
20 Unit	\$ 9218.00	\$ 11660.00
24 Unit	\$ 11000.00	\$ 14283.00

#### Complete with rubberware and milking equipment

Liners and shells	\$ 20.68
Oil Recirculating Mufflers	\$ 654.00
Recirculating Washing System	\$ 142.00
Round Yard Gate Drives	\$ 984.00
Teat Sprayers	\$ 544.00
Vacuum Pumps - Masport Major	\$ 1214.00
- Masport Master	\$ 1346.00
- Masport Super	\$ 1636.00

#### KLENZADE (1987 prices)

Carlyle Bloatenz Dispenser	\$323.00
Seal kit	\$ 17.95
Klenzade Liquid Dispenser Model 330	\$308.00
Seal kit	\$ 17.95

D.MCL. WALLACE (1987 prices as 1988 prices unavailable at time of print)

Teat Cup Remover (Less Timer)		\$ 178.41
complete with Timer		\$ 240.11
Teat Cup Remover Timer		\$ 76.72
TCR Initiator - complete		\$ 129.98
Plastic Milk Claw		\$ 200.95
Teat Cup (without weight)		\$ 5.25
Teat Cup weight		\$ 6.14
Teat Cup Liner		\$ 4.15
Pulsator Lid		\$ 8.30
Pulsator Guide		\$ 4.56
Pulsator Body Single Part		\$ 11.31
Pulsator Bracket 1.50"		\$ 15.74
Westfalia Teat Cup Washer		\$ 80.40
Westfalia Claw Bowl		\$ 43.48
Westfalia Cup Case		\$ 21.02
Westfalia Liner, 23mm	set of 4	\$ 22.50
Vacuplus Pulsator		\$ 260.23
Wallace Auto Shut-off Claw		\$ 137.50
Wallace Sight Claw		\$ 130.68
Wallace "Auto Claw" Bowl		\$ 35.67
Master Type "M" Pulsator		\$ 73.34
Relay Type "R" Pulsator		\$ 80.23
Pulsator Mounting Clamp	32/38 mm	\$ 13.51
MK II Pulsator Conversion Kit		\$ 37.57
Automatic Type A MK 2 Pulsator		\$ 144.41
"A" cluster Washer c/w clamp		\$ 52.33
Washer Unit		\$ 81.82
MK II Mastitis Detector		\$ 112.27
Waikato/Ruakura Regulator		\$ 45.80
Vacuum Regulator		\$ 75.85
Vacuplus Regulator Standard		\$ 168.44
Westfalia Vac Pump Set		\$2727.27
LR100 Vacuum Pump		\$ 812.50
Milkline Filter (with by-pass)		\$ 15.66
MK 3 Milk Meter Complete		\$ 218.18
LR-VAC Water Fed Port Plate		\$ 167.81
Wallace Stainless Steel Filter	4" x 24"	\$ 307.98
13" x 30" Blank Can Only-No Port		\$ 384.91
13" x 2" Receiving Can Complete		\$ 370.00
Clamping Ring for Receiving Can		\$ 105.19
9" Plain Diaphragm		\$ 19.77
Dairy Heater Element		\$ 34.09
Dairy Heater Cooler	200 litre	\$ 869.92
MCG Single Bank Cooler		\$ 547.73
MM 200/200 Double Bank Cooler		\$1131.60

**Prices Exclude GST**



## 2.6 SHEARING SHED EXPENSES

### **2.6.1 Plant**

#### **Machines:**

#### AGRISALES

#### Shearing Plant

'Super Pro' 1 Phase Electric Plant (Bare)	\$850.00
'Shoat' Shearing Plant (Dual Speed for sheep and goats).	\$762.00
<u>Downtubes</u> (For above plants)	
Rigid Downtube	\$345.00
Flexible Downtube	\$259.00
<u>Portable Dagging Unit</u>	
Petrol powered 4 stroke complete with elbow, flexible drive and handclutch	\$770.00

#### **Electric Grinders and Accessories:**

#### AGRISALES

Sunbeam Double - 3 phase	\$1433.20
Portable Steel Grinder Table	\$ 103.13
Comb Kit Buff and Disc for Dressing combs	\$248.00

### **2.6.2 Gear and Accessories**

#### AGRI-SALES

Sunbeam Supergrip Handpiece	\$ 459.00
Combs - Top Flight	\$ 27.85
- Hustler	\$ 27.85
- Pacer	\$ 27.85
- Cover comb	\$ 34.05
- Goat comb	\$ 40.72
- Merino comb	\$ 13.75
Cutters - AAA Cutter	\$ 5.90
- Big Gem Cutter	\$ 5.90

### **2.6.3 Woolpresses**

#### DONALDS

No Tramp Hydraulic - Std Model, 2.5 hp single phase	\$6114.00
Maxi Model, 2.5 hp single phase	\$6850.00
Maxi Model, 3 hp single phase	\$7253.00
Manual - Sandow Vertical Hoist Model HSW steel	\$2252.00

### **2.6.4 Wool Tables (1987 prices)**

HAYES Stevlyon circular wool table	\$ 413.25
CYCLONE Wool Table	\$ 403.06

### 2.6.5 Wool Pack Holders

#### CYCLONE

On Skids		\$ 63.54
On 2 Shepherd Castors		\$ 96.06
On 4 Shepherd Castors		\$ 124.61
On legs		\$ 61.33
Wool Bin Partitions		\$ 97.77
Mobile Fleece Bin		\$ 275.53

#### DONALDS

Standard Fadge holder		\$ 90.00
Fadge holder c/w castors		\$112.00

### 2.6.6 Fleece Weighers

#### DONALDS

Fleece weigher	10 kg	\$ 172.00
	15 kg	\$ 208.00

#### ALLFLEX

Fleece way - Scales, Cradle, 4 trays		\$168.00
- Bracket wall		\$13.00
- Trays each		\$9.50

### 2.6.7 Wool bale trolleys

HAYES - Stevelyon		\$ 289.49
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### 2.6.8 Other woolshed expenses

#### **Stencils:**

Alphabet or numerals		\$20.00 to \$30.00
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#### **Sheep Counters:**

Electronic		approximately \$350
Hand tally counters		\$12 to \$15

#### **Aerosol Sprays:**

##### DONAGHYS

- Sprayline Aerosol marker for sheep 170gm		\$ 4.30
- Sprayband for haired animals 400gm		\$ 7.20

<b>Seaming Twine:</b>	per hank	\$ 6.43
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<b>Packs:</b>	- Poly	each	\$ 6.27
	- Jute	each	\$10.80

## 2.7 FREIGHT AND CARTAGE

### **2.7.1 Railway Transport Rates**

#### Rail Freight Rates

Railways Corporation has withdrawn its schedule of rates for commercial reasons and instead, quotes for each proposal in the light of all circumstances.

The following is published as an example only of the 1987 rates (from Christchurch)

Consignments of 1 to 25 kg cost between 30c and \$1.10 per kg depending on distance (minimums - \$6.50 within South Island and \$9.50 to North Island destinations)

e.g. 20 kg from Christchurch to Whangarei would have cost \$22.00 (20kg x \$1.10)

Larger consignments were 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 have cost \$288.50 (base rate of \$68.50 plus 22c per kg) The same consignment to Invercargill would have cost \$189.25 (base rate of \$49.25 plus 14c per kg).

#### Speedlink Parcel Rates

Parcels can be delivered to most parts of New Zealand using this service. It is ideal for consigning cases of fruit and the like to individual destinations, as distinct from Railfreight service, which is for larger consignments. Rates are available from the Railways Corporation office.

#### Inter-Island Ferry Freight Rates

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

#### Commercial vehicles

	<u>\$/M*</u>
- Empty or with up to 1 cubic metre load	66.00
- Machinery: self propelled or towed machinery on wheels	99.00

Livestock may be carried in suitable vehicles at the cheaper rate of \$99.00/m\* or \$66.00/m\* plus a per head charge based on:

Sheep, goats and pigs	\$27.50
Calves, fawns, foals not exceeding 6 months of age	\$27.50
Horses, cattle and deer	\$99.00

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

### 2.7.2 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 New Zealand Contractors Federation (Incorporated).

1987 rates (\$ per unit - tonne unless otherwise stated)

	10	30	40	$\frac{\text{km}}{50}$	60	70	80
General Goods	18.94	28.55	32.75	36.52	40.15	43.15	45.97
Bagged Lime & Fertiliser	17.08	26.27	30.13	33.87	40.15	43.15	45.97
Bulk Lime & Fertiliser	12.44	20.73	24.07	26.98	29.80	32.58	35.42
Wool per bale	4.06	6.43	7.34	8.17	8.86	9.34	9.79
Bulk Grain	11.70	19.33	22.62	25.43	28.09	30.45	32.75
Boxes over 1000 kg per tonne	15.97	23.69	26.93	29.75	32.37	34.75	37.08
Boxes under 1000 kg per tonne	20.37	28.07	31.28	34.14	36.77	39.15	41.14
Empty Boxes per tonne	4.61	5.57	6.04	6.51	6.99	7.48	7.90

<u>km</u>	<u>Fat lambs to works</u>	
	<b>"A"</b> cents	<b>"B"</b> cents
10	59.60	65.90
20	81.20	89.60
30	99.90	110.60
40	116.40	128.60
50	131.50	145.30
60	145.20	160.40
70	156.90	173.30
80	168.10	185.70
90	180.00	199.10
100	191.30	211.40
110	202.50	223.80
120	213.90	236.40
130	225.40	249.10
140	236.50	261.30
150	249.10	275.30
160	260.10	287.50

Qualification for "A" and "B" rates for fat stock to Freezing Works

Qualification for "A" rate:

1. Freight paid by the Freezing Company, and
2. Tallies to be given to carrier day before cartage, and
3. Stock to be ready for loading, and
4. Acceptable loading facilities available, and
5. A minimum pick-up of 100 (variable by districts)

"B" Rate applies if any one element is not met.

**Store Stock (dollars)**

	10	30	50	$\frac{\text{km}}{70}$	100	130	160
Store lambs	0.597	0.929	1.234	1.502	1.821	2.102	2.399
Hoggets	0.685	1.140	1.517	1.841	2.243	2.600	2.968
Store sheep	0.742	1.224	1.644	2.021	2.471	2.829	3.199
Sheep	0.768	1.326	1.833	2.289	2.928	3.498	3.962
Weaners	3.37	5.92	8.06	10.11	12.74	14.63	16.12
Vealers							
18 month	5.22	9.13	12.87	15.56	18.87	21.32	23.32
Store steers							
2 yr cattle	6.19	10.83	14.62	18.26	23.06	26.15	28.64
Store cows							
In calf cows							
Works cattle	6.74	12.12	16.88	21.31	26.48	30.08	32.64

**2.7.3 Road Cartage Rates - Trucks and Trailers****Hourly Rates:**

<u>Capacity tonnes</u>	Trucks \$	Trailers \$
Up to 5	34.14	11.64
Up to 6	37.11	12.64
Up to 7	39.23	13.23
Up to 8	40.18	13.64
Up to 10	45.17	15.11

**Distance Rates:**

<u>Capacity tonnes</u>	Truck per km \$	Trailers per km \$
Up to 5	1.89	0.47
Up to 6	1.95	0.51
Up to 7	2.03	0.56
Up to 8	2.15	0.60
Up to 10	2.33	0.80

## Time and Distance Rates:

Capacity tonnes	Trucks		Trailers	
	Per km cents	Per hr \$	Per km cents	Per hr \$
Up to 5	75.6	28.31	21.90	11.25
Up to 6	93.5	29.57	25.90	11.52
Up to 7	105.5	30.61	29.80	11.64
Up to 8	109.4	31.26	33.80	11.87
Up to 10	123.4	33.56	51.70	12.50

## 2.7.4 Air Freight Rates

### AIR NEW ZEALAND

Domestic Rates quoted ex Christchurch

Freight Air:	To Wellington	\$0.82/kg
	To Nelson	\$0.63/kg
	To Auckland	\$1.38/kg
	To Napier	\$1.14/kg
	Minimum Charge	\$3.50

Jet-ex rates:

(Overnight)

To Wellington	\$1.34/kg
To Nelson	\$1.04/kg
To Auckland	\$2.27/kg
To Napier	\$1.86/kg
Minimum charge	\$4.50

Courier-Pak

Weight(kg)	Door to Door	Airport-Door	Airport to Airport
1-5	\$33.50	\$30.50	\$27.50

Over 5 kilograms in weight additional \$5.50 per kilogram.

International (per kg)

	Normal Rate	Foodstuffs			Flowers/Bulbs Seeds	
		100kg Min	250kg Min	500kg Min	45kg Min	100kg Min
Sydney	\$3.19	\$2.24		\$1.43	\$1.99	
Melbourne	\$3.19	\$2.24		\$1.43	\$1.99	
Brisbane	\$3.19	\$2.24		\$1.43	\$1.99	
Perth	\$4.32	\$2.29		\$2.19	\$4.75	
Singapore	\$8.28	\$2.74		\$2.46		\$3.27
Hong Kong	\$13.13	\$2.68	\$2.55	\$2.35		\$3.50
London	\$18.60		\$5.90	\$5.55		\$7.80
Los Angeles	\$17.44		\$4.13	\$3.93	\$4.08	

## **2.8 SEEDS**

### **2.8.1 Grain Crops**

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

### **2.8.2 Wheat**

Cost per tonne for Certified 2nd Generation seed for the 1987 sowing season. Prices are inclusive of seed treatment (Baytan).

<u>Cultivar</u>	<u>Price</u>
Rongotea, Oroua, Advantage	\$680.00
Arawa	\$620.00
Karamu, Crossbow, Bounty, Abele	\$650.00
Otane	\$730.00
Weka	\$715.00
Kotare	\$714.00

### **2.8.3 Barley**

Cost of seed per tonne for Certified 2nd Generation. Prices inclusive of seed treatment (Baytan) and GST.

<u>Cultivar</u>	<u>Price</u>
Triumph	\$490.00
Fleet	\$500.00
Magnum, Goldmarker	\$475.00
Liberty	\$400.00
Kym, Hassan, Tipper, Koru	\$450.00
Illia	\$480.00

### **2.8.4 Oats**

Omihi, Mapua, Amuri, Caravelle, Anvil, Taiko \$495.00/tonne

### **2.8.5 Lupins**

Uniwhite, Uniharvest \$700/tonne  
Bitter blue, Borre \$750/tonne

### **2.8.6 Rye-corn**

Rahu MD Certified \$650/tonne

### **2.8.7 Maize**

Various hybrids (treated) \$680/tonne

**Prices Exclude GST**



## 2.8.8 Peas

### Field

Whero	\$700.00/tonne
Blue, White Rondos, Marrowfat	\$620.00/tonne
White Rondos	\$616.00/tonne
Marrowfat	\$616.00/tonne

### Garden

General Freezer variety	\$570.00/tonne
Orthocide treating	plus \$50.50/tonne
Apron treating	plus \$240/tonne

For Watties Pea Contracts seed cost is 74c/kg (89.4c treated)

Bean seed for these contracts costs \$4.40 per kg

## 2.8.9 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 and GST inclusive.

### Rape:

Rangi	\$ 3.60
Winifred	\$ 4.80

**Swedes:** \$ 4.20

**Turnips:** \$ 4.20

### Kale:

Medium stemmed varieties \$ 4.00

Giant stemmed varieties \$ 4.00

### Lucerne: (certified)

AS 13R - bare seed \$12.90

Wairau \$ 8.00

### Ryegrass:

Ruanui \$ 2.60

Nui \$ 2.70

Ariki \$ 2.55

Manawa \$ 1.50

Paroa \$ 1.60

Tama \$ 1.80

Concord \$ 2.45

Moata \$ 2.00

Ellett \$ 3.10

Droughtmaster \$ 2.60

### Cocksfoot:

Apanui \$ 4.60

Wana \$ 4.60

### Prairie Grass:

Matua - uncoated \$ 2.50

### Lawngrass:

Browntop \$12.50

Highlight Fescue \$ 9.80

<b>Maku Lotus:</b>	\$35.00
<b>Yorkshire Fog:</b>	
Massey Basyn	\$ 6.90
<b>Yarrow:</b>	\$20.00
<b>Timothy:</b>	
Kahu	\$ 6.00
<b>Clovers:</b>	
White - Huia	\$ 3.70
- Pitau	\$ 3.80
- Tahora	\$ 5.00
Red - Pawera	\$ 9.50
- Hamua	\$ 4.50
- Turoa	\$ 5.50

### 2.8.10 Seed Coating

	<u>Seed/coat ratio</u>	<u>\$/kg</u>
Ryegrass	1:1	1.50
Lucerne	1:0.25	3.50
Red, White and Sub. Clover	1:1.75	2.00
Dogstail, Timothy	1:1	1.80

### 2.8.11 Vegetable Seeds

Vegetable seeds vary quite markedly in price depending on cultivar and quantity ordered. The following are estimates only. (Webling and Stewart Ltd.)

#### **Asparagus:**

Mary Washington \$ 29.66/500g

#### **Beans:**

Broad - Exhibition Long Pod \$ 3.00/kg

Butter - Golden Wax \$ 6.00/kg

Dwarf \$3.20 to \$9.70/kg

Runner \$3.70 to \$9.70/kg

**Beet:** \$45.00 to \$137.00/kg

**Broccoli Hybrid:** \$200.00 to \$1675.00/kg

**Brussel sprouts:** \$126.00 to \$3300.00/kg

**Cabbage:Hybrid** \$700.00 to \$2660.00/kg

:Red, Chinese \$ 92.00 to \$ 687.00/kg

**Capsicum:** \$280.00 to \$3400.00/kg

**Carrot:** \$80.00 to \$450.00/kg

**Cauliflower:** \$137.00 to \$2500.00/kg

**Celery:** \$375.00 to \$450.00/kg

**Cress:** \$40 per kg

**Cucumber:** \$87.00 to \$800/kg

**Egg Plant:** \$105.00 to \$900/kg

**Gherkin** \$110 to \$625/kg

Prices Exclude GST

<b>Leek:</b>	\$75.00 to \$690.00/kg
<b>Lettuce:</b>	\$190.00 to \$240.00/kg
<b>Marrow:</b>	\$54.00 to \$280.00/kg
<b>Onion:</b>	\$75.00 to \$1036.00/kg
<b>Parsley:</b>	\$60.00 to \$200.00/kg
<b>Parsnip:</b>	\$80.00 to \$100.00/kg
<b>Pea:</b>	\$2.00 to \$ 3.00/kg
<b>Pumpkin:</b>	\$46.00 to \$362.00/kg
<b>Radish:</b>	\$28.00 to \$200.00/kg
<b>Rockmelon:</b>	\$125.00 to \$2100.00/kg
<b>Silver Beet: (Yates)</b>	\$18.00/500g
<b>Spinach: (Yates)</b>	\$18.90 to \$26.00/500g
<b>Spring Onions: (Yates)</b>	\$44.70/500g
<b>Squash:</b>	\$40.00 to \$400.00/kg
<b>Swedes:</b>	\$15.00/kg
<b>Sweetcorn:</b>	\$15.00 to \$30.00/kg
<b>Tomato:</b>	\$92.00 to \$440.00/kg
<b>Turnip:</b>	\$14.00 to \$510.00/kg
<b>Watermelon:</b>	\$60.00 to \$1850/kg

### 2.8.12 Flower Seeds:

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

Carnations	\$ 24 - \$ 35 per g
Freesia	\$ 50 - \$ 60/100 g
Aster	\$ 15 - \$ 45/100 g
Chrysanthemum	\$160 per 100 g
Dahlia	\$ 20 - \$80 /100 g
Geranium	\$ 25 /100 seeds
Gerbera	\$190 per 100 g
Gypsophila	\$ 10 - \$220/100 g
Lobelia	\$ 70 - \$125/100 g
Marigold	\$ 10 - \$800/100 g
Polyanthus	\$ 42 - \$100 per5g
Sweet Pea	\$ 10 - \$20 /100 g
Wallflower	\$ 15 - \$40 /100 g
Zinnia	\$ 10 - \$160/100 g

### 2.8.13 Bulbs (per 100)

Daffodils	\$35.00 to \$100.00
Hyacinths	\$75.00 to \$120.00
Tulips	\$55.00 to \$ 85.00
Anenomes	\$ 6.50 to \$ 25.00
Crocuses	\$25.00 to \$ 40.00
Freesias	\$20.00 to \$ 45.00
Nerines	\$70.00 to \$240.00

## 2.9 CASH CROPPING EXPENSES

### 2.9.1 Sacks

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 \$4.50.

A 46 inch standard sack is now 116 cm, cost \$3.50.

A 37 inch sack is now 94 cm and costs \$3.00.

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

### 2.9.2 Box Hire

Box capacities are as follows:

Peas	1.3 tonne
Ryegrass	700 to 800 kg
Clover	1.0 tonne

Hire varies markedly between companies but on average would be in the region of \$8.00.

### 2.9.3 Seed Certification Charges 1987/88

For entries with closing dates after 1 October 1987 the following charges apply:

For crops requiring ONE field inspection, \$42.50  
(plus distance MAF/Farm @ 70c/km)

For crops requiring TWO field inspections, \$47.00  
(plus 2 x distance MAF/Farm @ 70c/km)

For crops requiring THREE field inspections, \$51.50  
(plus 3 x distance MAF/Farm @ 70c/km)

For crops requiring NO field inspection \$33.00

Charges for late entry, per entry \$10.00

Charges for re-inspection, per entry \$55.00

10% GST to be added to all charges

Growers withdrawing entries before field inspection should be refunded:

- the entry charge less \$33 (for administration and direct costs)
- travel charge (if appropriate).

## 2.9.4 Seed Testing Fees

### SCHEDULE OF SEED TESTING CHARGES EFFECTIVE FROM 1 January 1988

Purity and germination combined	\$ 63.00
Purity only	\$ 35.30
Germination only	\$ 35.30
Germination only field dressed (GOFD)	\$ 25.00
Endorsed certificates for export, NZ or Orange:	
A. Australia, Canada, Czechoslovakia, Hungary, Japan, USA	\$ 50.00
B. Chile, China, EEC, Finland, South Africa, Switzerland, USSR	\$ 40.00
C. Argentina, Colombia, Uruguay	\$ 30.00
Advice before completion (e.g. interim, telex, wire purity, wire regulations)	\$ 10.00
Copy (NZ or Orange Certificates)	\$ 10.00
Downgrading	\$ 30.00
Moisture	\$ 35.00
Seed weight determination	\$ 15.00
Vigour (peas, prairie grass, dogstail)	\$ 35.00
Buried seed content	\$ 63.00
Tetrazolium	\$ 40.00
Seed and Plant identification - Hourly rate	\$ 50.00
Urgent tests - Double normal rates	
OECD Plot Testing Charges - Payable on 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	\$ 0.10
<u>Health:</u>	
Bacterial Blight	\$ 63.00
Pea Seed Borne Mosaic Virus	\$ 63.00
Endophyte	\$ 63.00
Blind Seed	\$ 35.00
Aschohyta (peas, broad beans, tick beans)	\$ 35.00
Seed Treatment Efficiency	\$ 50.00
Other health tests	\$ 50.00
<u>Inoculant and Coated Seed Testing Services Tests:</u>	
Complete inoculant test	\$ 63.00
Semi complete inoculant test	\$ 49.00
Reduced inoculant test	\$ 30.00
Plant infection test	\$ 33.00

Duplicate plant infection test	\$ 58.00
Triplicate plant infection test	\$ 82.00
Quadruplicate plant infection test	\$105.00
Heterogeneity test	\$530.00

### 2.9.5 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 as at 24 November 1987.

	<u>Cultivar</u>	<u>(Cents/kg of seed)</u>
Red Clover	Grasslands Hamua	2.64
	Grasslands Turoa	3.52
	Grasslands Pawera	6.60
White Clover	Grasslands Huia	2.64
	Grasslands Pitau	2.46
	Grasslands Tahora	3.30
Cocksfoot	Grasslands Apanui	1.58
	Grasslands Wana	1.58
	Grasslands Kara	1.58
Crested Dogstail		2.42
Lotus	Grasslands Maku	13.20
Prairie Grass	Grasslands Matua	1.41
Italian Ryegrass	Grasslands Paroa	0.66
	Grasslands Tama	0.97
	Grasslands Moata	0.97
	Concord	1.06
	Ace	0.66
	Exalta	0.83
Perennial Ryegrass	Grasslands Ruanui, Nui	1.23
	Grasslands Droughtmaster	1.23
	Yatsen	1.23
	Ellett	1.23
Hybrid Ryegrass	Barry	1.23
	Grasslands Ariki	1.06
	Grasslands Manawa	0.79
	Short Rotation	0.79
Timothy	Grasslands Kahu	2.20
	Farol	2.20
Browntop	Grasslands Egmont	3.96
Yorkshire Fog	Massey Basyn	2.64

Prices Exclude GST

Lucerne	Grasslands Oranga	3.52
Phalaris	Grasslands Maru	4.40
Tall Fescue	Grasslands Roa, S170, S23	3.96
Yarrow		11.00
Red Fescue	Polar, Frida, Highlight	3.52

### 2.9.6 Wheat Growers Levies

When the Wheat Levies Bill is enacted (probably the end of 1987) wheat levies will be set at the following rates.

These figures are GST inclusive.

United Wheat Growers \$1.63 per tonne

- includes levies payable by grower for wheat insurance insurance, economic research and administration.

Wheat research 50c per tonne.

### 2.9.7 Potato Levy

The Potato Growers Federation has a compulsory levy of 0.25% of the value of potatoes.

### 2.9.8 Consolidated Dressing and Store Handling Charges

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

Ryegrasses - Ruanui, Tama, Manawa, Ariki, Paroa and Nui	15.00 cents per kg
Cocksfoot	35.00 cents per kg
Clovers - White, Red and Alsike	33.00 cents per kg
Lucerne	45.00 cents per kg
Grass seed (Fine - Browntop, Fescue, Dogstail and Timothy)	37.00 cents per kg
Turnips, Chou Moellier, Kale & Mustard	28.00 cents per kg
Rape	28.00 cents per kg
Prairie Grass	60.00 cents per kg
Yarrow	75.00 cents per kg
Separating White clover and Ryegrass	\$2.00 per sack
Separating mixed oats and Ryegrass	\$2.00 per sack

Slurry treating - \$27/tonne plus materials

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

Wheat and Rye-corn	\$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

Farmers usually only get their small seeds dressed and under ordinary circumstances seed goes once through the dressing machines.

Field dressed ryegrasses, clovers and timothy usually dress out approximately 25 percent offal and field dressed cocksfoot from 25 to 33 percent offal.

### **2.9.9 Grain and Seed Drying Charges**

Peas - \$27.50 to \$38.00 depending on moisture levels

Wheat, Oats and Barley - \$25 to 35 depending on moisture levels

Small Seeds - 11 to 14c /kg depending on moisture levels

### **2.9.10 Weighing Charge**

\$4 per truck

\$8 per articulated vehicle

\$4 per additional trailer



## 2.10 BEES

### **Bee Escapes:**

Porter Double Ended, plastic	per 10	\$ 18.15
New, Round Galvanised type	per 10	\$ 18.29

### **Bee Escape Boards:**

(1 Porter Bee Escape mounted in H/Bd with wooden rim)	per 10	\$ 57.49
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(1 Round Galvanised Bee Escape mounted in H/Bd with wooden rim)	per 10	\$ 57.63
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<b>Bottom Boards - Reversible:</b>	per 10	\$ 72.71
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### **Comb Foundation**

	Sheets per kg approx	Kg per carton	Carton Lots	Less than Carton lots	100 sheets Cartons (approx)
Medium Brood	17.50	12.50	\$11.04	\$11.93	66.24
Seven sheet special	15.50	13.5	\$10.90	\$11.77	(6 kg)
Extra Heavy Brood Medium Brood	13.25	16	\$10.73	\$11.59	
3/4 Depth	23	12.5	\$11.04	\$11.93	
Thin Super 1/2 Depth Standard	57-61	13.5	\$12.98	\$14.02	

### **Excluders:**

All Wire with Wood Frames

1-9	each	\$ 9.15
10-49	each	\$ 8.00
50 and over	each	\$ 7.63

Unassembled Excluders -

50 and over only	each	\$ 7.43
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### **Feeders:**

Division Board	each	\$ 5.52
	per 10	\$ 46.95
Entrance Type	each	\$ 2.50
	per 10	\$ 23.00

### **Frames:**

Hoffman Full Depth, Three Quarter Depth, Half Depth, Section Frames	10	\$ 9.32
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Full and Half Depth, Manley Three	100	\$ 67.41
Quarter Depth (100pr bulk carton)	1000	\$ 616.30
<b>Gloves:</b>		
Leather, ventilated	pair	\$ 33.50
<b>Hats:</b>		
Ventilated Bee Helmets	- woven fabric	\$ 20.12
	- moulded plastic	\$ 22.80
<b>Honey Cartons:</b>		
500 g square clear plastic	1 to 5 wraps	\$16.45
Polyjars with white screw caps	6 or more wraps	\$15.50
1 Kg Printed Plastic Lily	100	\$46.42
containers, heavy duty lids	1000	\$375.10
2 kg plastic Safe-A-Pak	each	\$0.75
coloured with white lids	200	\$130.00
30 kg (20 litre) plastic	each	\$ 9.10
polypails with lids	per 10	\$ 85.34
<b>Honey Extractors:</b>		
Lega 4 Frame Hand Drive	each	\$545.00
<b>Hives:</b>		
Complete	each	\$ 84.90
<b>Hive Mats:</b>		
Hardboard with Wood Rim	each	\$ 4.12
	per 10	\$ 34.34
	per 100	\$312.16
<b>Hive tools:</b>		
Kelley 10in	each	\$ 9.80
Maxant 10in with hook	each	\$ 15.40
<b>Honey Gates:</b>		
Nylon-Threaded with back nuts		
1 1/4 inch	each	\$ 14.55
1 1/2 inch	each	\$ 17.60
1 3/4 inch	each	\$ 23.75
<b>Honey Pumps:</b>		
'Ecroyds' Gear type 1.25 inch	each	\$362.25
<b>Honey Strainers:</b>		
28 mesh Nybolt for use with		
20 litre Polypail	each	\$ 11.70

<b>Honey Refractometers:</b>	each	\$342.00
<b>Honey Tanks:</b>		
Plastic 60 litre (90 kg)		
1 to 1.75 inch nylon honey gate	each	\$ 86.67
<b>Nucleus lock:</b>		\$45.00 plus freight
<b>Pollen Traps:</b>	each	\$ 33.50
<b>Queens:</b>		
Depending on number required and time of year: \$8.00 to \$10.00 each.		
<b>Queen Rearing Materials:</b>		
Bozi Cell Cup	per 200	\$ 24.00
Bozi Cell Cup bars	each	\$ 1.20
<b>Roofs:</b>		
Without iron	per 10	\$ 84.71
With iron	per 10	\$121.36
<b>Separator</b>	7	\$ 2.60
	100	\$ 27.94
<b>Smokers:</b>		
3 inch galvanised	each	\$ 25.40
4 inch galvanised with shield	each	\$ 33.85
<b>Uncapping Knives:</b>		
Electric Thermostatic	each	\$128.00
Plain Heavy Duty	each	\$ 29.20
Steam heated 10 inch	each	\$ 56.20
<b>Veils:</b>		
Folding wire guage		\$ 7.95
Round with Plastic mesh		\$ 10.80
Bee hoods - long sleeved		\$ 54.20

## 2.11 HORTICULTURE (Expenses not elsewhere included)

### 2.11.1 Fruit and Nut Trees

#### Fruit Trees:

##### Waimea Nurseries Ltd

Apricots	Myrobalan rootstock	\$5.70
Apples	EM9, MM106, M115, SPY, M793	\$5.35
	Dormant budded	\$4.20
	Grafted Rods	\$3.50
Cherries	Colt rootstock (Royalty included)	\$6.40
	Mazzard and Mahaleb rootstock	\$6.25
Feijoas	Apollo and Gemini (Royalty included)	\$6.60
	Other grafted varieties	\$5.40
	Seedlings	\$3.60
Kiwifruit	Hayward and males	\$5.40
Nashi	All rootstocks	\$7.40
	Dormant budded	\$4.95
Nectarines	Peach and St. Julian A rootstock	\$5.40
Peaches	Golden Queen seedling rootstock	\$5.40
Pears	BA29 rootstock	\$5.35
	" " - dormant budded	\$4.20
	Dormant budded with interstock	\$5.70
Persimmons	Seedlings	\$5.00
Plums	Myrobalan and Marianna rootstock	\$5.40

N.B. Royalty payments extra except in case of cherries and feijoas.

##### Millichamp's

Apples (10 varieties, dwarf and normal)	from \$ 8.80
Apricots (10 varieties)	from \$ 8.80
Cherries (10 varieties)	from \$ 8.80
Nashi Shinsui	from \$13.00
Nectarines (6 varieties)	from \$ 8.80
Peaches (8 varieties)	from \$ 8.80
Pears (7 varieties)	from \$ 8.80
Plums (14 varieties)	form \$ 8.80
Quince	from \$ 8.80

#### Nut Trees:

##### Harrisons Trees

Chestnuts	90-120cm grade 2yr from seed	\$ 7.80
Hazelnuts	60-90cm grade named varieties	\$ 7.70
Walnut	120-160cm grade 3yr from seed	\$10.40
Walnut	25-40cm grade grafted	\$34.30

##### Millichamp's

Chestnuts	Castanea Sativa	\$50.00 per 100
Hazelnuts	Corylus Avellana	\$45 per 10
Walnuts	Juglans Regia	\$40 per 10

Prices Exclude GST

### **Citrus Fruits:**

(Discounts available for bulk orders)

Lemons, Tangelos, Mandarins, Grapefruit, Oranges \$15.00

### **Subtropicals:**

(Discounts available for bulk orders)

Tamarillo (yellow) \$ 7.00

Kiwifruit \$12.00

Black passionfruit \$ 6.00

### **2.11.2 Fruit Plants**

(Discounts available for bulk orders)

#### **Berryfruit:**

Strawberry Runners 2.10/10

Raspberry (plants) \$ 0.95/cane

Brambles - Black satin (thornless) \$ 0.95/cane

- Thorn free \$ 0.95/cane

Boysenberry \$ 0.95/cane

Blackcurrant (plants) \$ 3.75

Redcurrants \$ 3.75

Gooseberries \$ 4.75

#### Millichamp's

Currents, Gooseberries and Grapes from \$6.60

### **2.11.3 Greenhouses and Growing Tunnels**

#### BROWNBUILT

(1987 prices)

Tunnel House 1.8m x 8.0m 4 bay kitset \$ 7210.00

Stndrd Arch Greenhouse 6.0m x 10.0m 3 bay kitset \$ 9400.00

9m Gable Greenhouse 4.9m x 9.0m 3 bay (vented) \$19700.00

12m Gable Greenhouse 6.0m x 12.4m 3 bay (vented) \$27300.00

#### EXAL GLASSHOUSE EQUIPMENT

##### Glasshouse

Dutch designed, manufactured in Australia, 27% gullwing ventilation, aluminium glazing bars, 4mm glass, incl. gear motors, doors. Kitset only delivered on site.

Depending on area, from \$6.19 per sq ft.

##### Greenhouse

6 metre x 3 metre bays. Twin skin plastic covered, heavy duty galv. steel structure, aluminium extrusions, 30% roof ventilation, rack and pinion mechanism. Includes all materials and fastenings. Kitset delivered on site.

Depending on area, from \$3.53 per sq ft.

**PERMATHENE PLASTICS LTD**

Greenhouse ducting - Available on seasonal basis.

Thermaglaze - Glasshouse insulation

1300mm x 100m x 135mu

\$461.83

**2.11.4 Shelter and Windbreak Cloth**

**DONAGHY'S**

(1987 prices)

<u>Width</u>		<u>Length</u>	<u>Wholesale price/Roll</u>
<b>Windbreak Cloth</b>			
3ft	(0.91 m)	50 m	\$ 63.29
3ft	(0.91 m)	100 m	\$126.59
6ft	(1.83 m)	50 m	\$108.66
6ft	(1.83 m)	100 m	\$217.30
9ft	(2.74 m)	50 m	\$160.51
9ft	(2.74 m)	100 m	\$321.04

**Windfilter Cloth - High Porosity Windbreak**

6ft	(1.83 m)	50 m	\$131.80
9ft	(2.74 m)	50 m	\$204.13

**Shade Cloth (Woven)**

<u>Grade</u>		<u>Roll Size</u>	<u>Wholesale Price/Roll</u>
30-35% Shading		6ft (1.83m) x 50m	\$164.89
45-50% Shading		6ft (1.83m) x 50m	\$180.59
65-70% Shading		6ft (1.83m) x 50m	\$220.44
75-80% Shading		6ft (1.83m) x 50m	\$253.26

**Shade Cloth (Knitted)**

<u>Grade</u>		<u>Roll Size</u>	<u>Wholesale Price/Roll</u>
35-40% Shading - Green/Black		6ft (1.83m) x 50m	\$236.11
		6ft (1.83m) x 50m	\$222.40
Light Approx. 45-50% Shading - Green/Black		6ft (1.83m) x 50m	\$258.61
		6ft (1.83m) x 50m	\$230.76
Med. Approx. 65-70% Shading - Green/Black		6ft (1.83m) x 50m	\$315.68
		6ft (1.83m) x 50m	\$283.98
Heavy Approx. 75-80% Shading - Green/Black		6ft (1.83m) x 50m	\$401.39
		6ft (1.83m) x 50m	\$360.90

**Prices Exclude GST**

Permathene Plastics Ltd

Solarshade (woven shade cloth)

1.83m x 50m - 32% shading	\$167.37
1.83m x 50m - 50% shading	\$183.03
1.83m x 50m - 70% shading	\$234.73
1.83m x 50m - 80% shading	\$273.07
1.83m x 50m - 90% shading	\$341.75

Windstop (windbreak cloth)

91cm x 50m	\$72.40
183cm x 50m	\$124.31
274cm x 50m	\$183.64

Permaclips (solarshade and windstop clips)

500 per ctn	\$100.00
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**2.11.5 Soil Fumigants**

BASF

A.I.(%)

<u>Basamid Gran.</u>	dazomet (90.0)	450 g	\$ 12.88
		2.5 kg	\$ 38.05
		20 kg	\$257.20
<u>BASF Metam</u>	metam sodium (56.0)	210 litre	\$894.60

SHELL

<u>D.D. Soil Fumigant</u>	dichloropropan	23 kg	\$123.05
		245 kg	\$1119.65

**2.11.6 Growth Regulants**

BASF

A.I.(%)

<u>MH30</u>	maleic hydrazide (36.0)	20 litre	\$ 285.00
		200 litre	\$2500.00

**2.11.7 Herbicides**

A.I.(%)

DUPONT

<u>Linuron 50</u>	Linuron (50.0)	2.5 Kg	\$55.00
		20 Kg	\$418.00

MONSANTO

<u>Ramrod</u>	Propachlor (48.0)	9.5 litre	\$338.20
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SHELL

<u>Prefix D</u>	chlorthiamid (7.5)	5.5 kg	\$ 52.25
		20 kg	\$178.00

## 2.11.8 Fungicides

### BASF

	A.I.(%)		
Bavistan FL	carbendazim (50.0)	1 litre	\$ 58.90
		5 litre	\$ 284.50
		20 litre	\$1122.00
Calirus	benodanil (50.0)	1 kg	\$ 65.60
Kumulus S	sulphur (80.0)	25 kg	\$ 110.00
BASF Mancozeb	mancozeb (80.0)	2 kg	\$ 18.00
		25 kg	\$ 200.00
Pallinal	metiram (60.0) plus nitrothal-isopropyl (1.25)	25 kg	\$ 385.00
Pallitop	nitrothal-isopropyl(40)	20 kg	\$ 557.00
Polyram 2000 80WP	metiram (80.0)	25 kg	\$ 317.25
Ronilan	vinclozolin (50.0)	1 kg	\$ 90.62
		20 kg	\$1752.60
Ronilan FL	vinclozolin (50.0)	1 litre	\$ 98.10
		5 litre	\$ 479.85
		20 litre	\$1883.80

### BAYER

Baycor 50 WP	Bitertanol (50.0)	2 Kg	\$199.76
Bayleton 5 DF	Triadimefon (5.0)	2 Kg	\$89.10
Euparen 50 DF	Dichlofluamid (50.0)	2 Kg	\$124.84

### ICI NEW ZEALAND LTD

Nimrod	bupirimate (25.0)	5 kg	\$170.00
Sumisclax 25 Flowable	procymidone (50.0)	1 litre	\$ 47.00
		5 litre	\$230.00
		20 litre	\$880.00

### IVON WATKINS-DOW LTD

Protek S (antisapstain)		20 litre	\$384.80
Topsin M-4A	thiophanate-methyl(40)	5 litre	\$144.00

## 2.11.9 Insecticides

### BASF

	A.I.(%)		
Dibrom 870	naled (87.0)	1 litre	\$ 32.19
		5 litre	\$ 181.30
Monitor	methamidophos (60.0)	1 litre	\$ 37.15
		5 litre	\$ 174.75
		20 litre	\$ 671.80
		200 litre	\$6096.00



**BAYER**

<u>Baythroid 5EC</u>	cyfluthrin (5.0)	1 litre	\$ 36.26
		5 litre	\$ 181.30
<u>Folidol M 50</u>	parathion-methyl (60.0)	1 litre	\$ 34.23
		25 litre	\$ 705.75
<u>Mesurool 75 WP</u>	methiocarb (75.0)	1.5 kg	\$ 122.15
<u>Mesurool Snail Baits</u>	methiocarb (2.0)	5 kg	\$ 69.50
		10 kg	\$ 139.00
<u>Nemacur 400 EC</u>	fenamiphos (40.0)	1 litre	\$ 53.20
		10 litres	\$ 506.00
		25 litres	\$1210.00
<u>Tamaron 600 LC</u>	methamidophos (60.0)	1 litre	\$ 37.20
		25 litre	\$ 837.75
		200 litre	\$6100.00
<u>Tokuthion 500 EC</u>	prothliofos (50.0)	1 litre	\$ 74.70
		5 litre	\$ 373.50
<u>Gusathion M50</u>	azinphosmethyl (25.0)		
	captan (53.0)	15 kg	\$472.50

**2.11.10 Spray Equipment**Cropliner Range of Trailed Sprayers

Specifications: Streamlined fibreglass tank with level gauge and flotation tyres inset in profile of tank. Dual venturi agitation. Three large stainless filters - variable height axle - adjustable swivel drawbar - remote controls with P.T.O shaft. Chemical premix.

<u>Attachment</u>	<u>Pump</u>	<u>2000 lt</u>	<u>1500 lt</u>	<u>1000 lt</u>
920 mm Fan	AR150 litre/m	\$12783.00	\$12236.00	\$11912.00
820 mm Fan	AR150 litre/m	\$12483.00	\$11936.00	\$11612.00
820 mm Fan	AR120 litre/m	\$12233.00	\$11686.00	\$10362.00
720 mm Fan	AR 90 litre/m	\$11071.00	\$10524.00	\$10200.00
620 mm Fan	AR120 litre/m	\$11200.00	\$10653.00	\$10329.00
Braglia	AR 90 litre/m	\$ 8342.00	\$ 7795.00	\$ 7471.00
Nil	AR150 litre/m	\$ 8431.00	\$7884.00	\$7560.00
Nil	AR120 litre/m	\$ 8181.00	\$7634.00	\$7310.00
Nil	AR 90 litre/m	\$ 7537.00	\$6990.00	\$6666.00

**MAY & BAKER**

<u>Spotomatic Sprayer</u>	- Complete Unit	\$125.95
	- Nursery Wand	\$ 19.95

**SOLO**

<u>Solo Port 423</u>	Mistblower	\$860.00
	Dusting attachment	\$62.00
	U.L.V. spin disc nozzle head	\$42.00
	Liquid booster pump	\$75.00
	Double nozzle	\$41.00
<u>Solo 475</u>	Knapsack Sprayer	\$195.00

	(Diaphragm or piston pump)	
	Extension lance 180cm	\$36.87
	Pressure limiting valve	\$43.00
	4 nozzle boom	\$93.00
Solo 440	Ride on sprayer	\$5380.00
Solo 426	Self propelled mist blower	\$4500.00

### 2.11.11 Forklifts

(1987 prices)

#### LEES INDUSTRIES LTD

NYK FE 3000	Battery Electric	\$34.500
NYK FB 15P	Battery Electric	\$39.088

### 2.11.12 Planting/Propagating Material

Planterbags - Range from \$3.00 to \$35.00 per 100 depending on pot size.

Peat - Growers bale 340 litre \$28.00

Plastic labels 13 cm \$35.00 per 1000.

		<u>Black/m</u>	<u>Clear/m</u>
Polythene Film	1000mm x 125m	\$0.72	\$0.73
	2000mm x 125m	\$1.19	\$1.43
	4000mm x 125m	\$1.85	\$1.95

#### Permathene Plastics Ltd

Capillary matting	3.2m x 50m	\$1631.50
	3.2m cut to length/LM	\$36.26
Hydroponic film	600mm x 200mm x 200mu	\$195.84
	4m x 50m x 240mu	\$391.71

### 2.11.13 Pruning Equipment

#### FRUITFED LTD

(1987 prices)

#### Pneumatic

Limblocker	- V3, vinepruner	\$350.00
Maibo	- SE2 medium duty vine pruner	\$296.00
	- SE4 suitable most horticultural work	\$316.00
	- SE6 heavy duty pruner	\$440.00

#### Vineyard Pruners

V3 without hose	\$350.00
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Pruning Rake (1986 Price)	\$1680.00
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Prices Exclude GST

### Hand Pruners

Felco No. 2	\$47.11
LH snapcut	\$36.75
Felco No. 4	\$25.16
Felco No. 6	\$27.84
Felco No. 7	\$48.84

### **2.11.14 Protection**

#### Frost Alarm (1987 price)

Raco alarm (Complete)	\$393.91
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#### Permathene Plastics Ltd

Birdnetting	3m x 50m	\$66.67
	3m x 100m	\$124.44

Carnation and flower netting - quoted to requirements.

Marix frost protection	2m x 100m	\$250.00
Marix thermal screening	2m x 100m	\$494.00

### **2.11.15 Packaging Equipment**

#### Cases and Cartons

\$800 to \$2000 per 1000 depending on size and materials.

#### Berry Containers

\$40 to \$250 per 1000 depending on size and materials.

#### Punnets

\$100 to \$300 per 1000 (250g to 1.5kg)

#### Apple Bags

Plain	- 5 kg	1000	\$ 70.00
	- 9 kg	1000	\$150.00
Cellophane	225 x 225 plain	1000	\$ 19.03
	300 x 400 plain	1000	\$ 36.00

### **2.11.16 Cool Storage**

#### N.A. PIERSON LIMITED

Casual Storage under	5000 kg	= 5 c/kg/month or part thereof
over	5000 kg	= 4 c/kg/month or part thereof
Contract Storage		= 3 c/kg/month or part thereof
Blast Freezing		= 5 c/kg plus normal monthly rates.

Storage on a pallet = \$35.00 per pallet/bin per month  
 or bin space basis  
 Overnight storage charge = \$5.00 per pallet

Minimum:

Storage charge per month any product = \$20.00

**Note:** Price by negotiation for large jobs. High humidity, medium temperature storage also available. Price by negotiation.

### **2.11.17 Horticultural Levies**

#### Berryfruit

A levy is paid on the area of fruit grown.

Less than 250 sq metres	Nil
250 sq m but not over 8000 sq m	\$100.00
8000 sq m and over	\$187.50

#### Blackcurrants

A levy of 1.5 cents per kilogram shall be paid in respect of all blackcurrants sold for processing or export (over and above the general berryfruit levy).

#### Blueberries

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

A 3c per kilogram fixed applies for all export and processed boysenberries.

#### Raspberries

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.

#### Pip and Stonefruit, Subtropical and Citrus

\$10 per ha with a minimum of \$40 and a maximum of \$400.

#### Apples

First tier capital charge - levy on extra production supplied to Apple and Pear Marketing Board by new grower (or existing grower with extra crop). 50c per carton equivalent.

Citrus Fruit:

Approximately 6c per bushel levy for promotion.

Vegetables

Registration fee to Vegetable Federation.

Fresh vegetables: 4% of selling price. 0.25% of gross price to growers at first point of sale, free of any deductions.

Processed vegetables: .5625% of price at which vegetables are purchased for processing or canning.

Asparagus 2% of purchase price, voluntary levy for promotion, payable to Asparagus Council.

Fresh Tomatoes

Voluntary levy of 5% of selling price for promotion, payable to Fresh Tomato Industry Fund. Exporters of onions, squash and buttersquash.

Voluntary levy of 50c/t.

## 2.12 WEED, PEST AND DISEASE CONTROL

Many herbicides, fungicides, and insecticides are produced by a variety of chemical companies and these come in ranges of strengths. This Budget Manual does not endorse any particular product or company and the trade names given are to serve only as examples of the chemical concerned.

### **2.12.1 Herbicides**

For the prescribed rates of application for the various chemicals and the weeds they control, see Section 17 in the Lincoln College Technical Manual, "Weed and Pest Control".

For full information regarding common names, propriety names and percent a.i., refer to the New Zealand Agricultural Manual (second edition) published by Agrichemical Manual Partnership.

<u>Trade Name</u>	<u>Active Ingredient (%)</u>	<u>Unit Size</u>	<u>Retail Price</u>
<b>ICI NEW ZEALAND</b>			
Avenge 200A	difenzoquat (20.0)	20 litre	\$316.00
Dicambone 75D	dicamba (7.5), 2,4-D amine salt (30.0)	5 litre	\$65.00
		20 litre	\$252.00
Dicambone 5G	dicamba (5.0)	4 kg	\$ 31.00
		18 kg	\$132.40
		5 litre	\$297.00
Fusilade	fluazifop-butyl (25.0)	1 litre	\$ 62.00
Goal	oxyfluorfen (24.0)	5 litre	\$297.00
		1 litre	\$ 47.57
Gramoxone	paraquat (20.0)	5 litre	\$ 76.00
		20 litre	\$302.00
		5 litre	\$ 84.25
Preeglone	paraquat (12.0)	20 litre	\$330.78
		5 litre	\$ 85.68
Reglone	diquat (20.0)	20 litre	\$338.52
		5 litre	\$ 67.00
Spraygrow	paraquat (15.0)	5 litre	\$ 67.00
		20 litre	\$263.00

Torpedo	diquat (10.0)	20 litre	\$222.80
Trident	dicamba (1.87) plus	20 litre	\$228.60
	dichlorprop (60.0)	200 litre	\$2230.20
Trimec	MCPA (15.0)		
	dicamba (1.87) plus	20 litre	\$ 228.60
	MCPA (15.0) plus mecoprop (60.0)	200 litre	\$2230.20

#### CIBA GEIGY NZ LTD

Caragard 500FW	terbuthylazine (25.0)	5 litre	\$132.68
	terbumeton (25.0)	20 litre	\$503.11
Gesagard 50WP	prometryn (50.0)	2 kg	\$ 80.16
Topogard 500FW	terbutryn (35.0)		
	terbuthylazine (15.0)	5 litre	\$513.55

#### IVON WATKINS LTD

Actazine 5A	atrazine (50.0)	5 litre	\$ 42.40
		20 litre	\$161.40
Alloxol S	alloydim sodium(75.0)	1 litre	\$ 59.97
Banvine	2,4-D amine salt (20.0)	1 litre	\$ 19.07
		dicamba (10.0)	5 litre
Dowpon 740-SP	2,2-dichloropropionic acid (74.0)	25 kg	\$210.25
Eliminex 5A	atrazine (25.0)		
		simazine (25.0)	20 litre
Fodderkleen	chlornitrofen (20.0)	5 litre	\$ 65.55
		picloram (1.25)	20 litre
Garlon 520	picloram (5.0)	5 litre	\$155.80
		trichlopyr (19.3)	20 litre
Hi-Ester 2,4-D	2,4-D butyl ester(72.0)	5 litre	\$ 45.10
		20 litre	\$164.60
		200 litre	\$1528.00
Hi-Ester 2,4,5-T		5 litre	\$ 160.50
		20 litre	\$ 612.00
		200 litre	\$5690.00
Hi-Foam Concentrate		5 litre	\$ 28.40
		20 litre	\$ 106.60
IWD 2,4-D amine	2,4-D amine salt (40.0)	5 litre	\$ 37.80
		20 litre	\$ 144.00
IWD MCPA	MCPA (37.5)	5 litre	\$ 27.70
		20 litre	\$ 101.00
		200 litre	\$ 940.00
IWD MCPB	MCPB (40.0)	5 litre	\$ 38.25
		20 litre	\$ 145.40
		200 litre	\$1352.00
IWD 2,4-DB	2,4-DB (40.0)	5 litre	\$ 43.75
		20 litre	\$ 166.60

Lontrel	MCPB (50.0)	5 litre	\$ 84.30
Pasture		20 litre	\$ 321.00
Permazol SDA	amitrole (12.5),	500 g	\$ 11.31
	2,2-dichloropropionic acid (25.7)	2 kg	\$ 40.70
		15 kg	\$ 288.60
	simazine (40.0)		
Phytazol A	amitrole (25.0)	4 kg	\$ 62.36
	2,2-dichloropropionic acid (37.0)	15 kg	\$ 221.10
Selecta 4-CPA	4-CPA (40.0)	5 litre	\$ 67.35
Simazol 5A	simazine (50.0)	5 litre	\$ 48.50
		20 litre	\$ 185.00
Teedal	2,2 dichloropropionic acid (11.0), TCA (63.0)	4 kg	\$ 48.00
		20 kg	\$ 207.60
Tordon 2G	picloram (2.0)	5 kg	\$ 45.95
		25 kg	\$ 216.75
Tordon 50-D	2,4-D amine salt (20.0)	5 litre	\$ 96.10
	picloram (5.0)	20 litre	\$ 366.40
Tordon Brush-killer DS	picloram (10.0)	2 litre	\$ 118.74
	2,4,5-T butyl ester (40)	5 litre	\$ 276.20
		20 litre	\$1052.00
		200 litre	\$9784.00
Versatill		5 litre	\$ 319.00
		20 litre	\$1217.60
Weedazol 4-L	amitrole (40.0)	1 litre	\$ 18.15
		5 litre	\$ 73.90
		20 litre	\$ 279.40
<b>DUPONT</b>			
Escort	metasulfuron (60.0)	2 Kg	\$158.00
Glean	chlorsulfuron (75.0)	1 Kg	\$279.00
Glean	chlorsulfuron (75.0)		
(Twinpack)	bromoxynil (40.0)	1 Kg	\$319.00
Velpar L	hexazinone (90.0)	2 Kg	\$180.00
		25 Kg	\$2143.75
<b>MAY &amp; BAKER (GST inclusive)</b>			
Asulox	asulam (40.0)	5 litre	\$ 130.35
		20 litre	\$ 492.80
Axall	bromoxynil (7.5))	20 litres	\$ 348.70
	ioxynil (7.5		
	mecoprop (34.5)		
Carbetamix 70	carbetamide (70.0)	5 kg	\$ 153.56
Combine	bromoxynil (20.0)	5 litre	\$ 181.50
	ioxynil (20.0)	20 litre	\$ 682.00
Mostox		5 litre	\$ 104.89
Proturf		5 litre	\$ 70.79



		20 litre	\$ 272.80
Treflan	Trifluralin (40.0)	5 litre	\$ 90.00
		20 litre	\$ 283.36
<b><u>FARMERS FERTILISER LTD (GST inclusive)</u></b>			
Buster		5 litre	\$ 227.70
Cornox CWK	benazolin (30.0)	1 litre	\$ 84.32
		5 litre	\$ 299.60
Hoegrass 36 EC	diclocop-methyl (37.5)	5 litre	\$ 284.63
		10 litre	\$ 495.00
Hoechst	linuron (49.1)	2 kg	\$ 48.70
Linuron 50 WP		25 kg	\$ 577.50
Nufarm MCPA	MCPA as potassium salt (40.0)	5 litre	\$ 32.01
		20 litre	\$ 117.70
		200 litre	\$1094.50
Nufarm MCPB	MCPB as potassium salt (40.0)	5 litre	\$ 49.38
		20 litre	\$ 170.50
		200 litre	\$1584.00
Nufarm 2,4-D Ester 80	2,4-D butyl ester (72.0)	5 litre	\$ 54.32
		20 litre	\$ 193.05
		200 litre	\$ 793.00
Rural Activated Amitrole	amitrole (20.0)	5 litre	\$ 56.89
Rural Dicamba	ammon. thiocyanate (18.3)	20 litre	\$ 179.30
Rural 2,4-D Sodium Salt 80	dicamba (20.0)	20 litre	\$ 550.00
Rural Sodakem	2,4-D sodium salt (80.0)	40 kg	\$ 275.00
	Sodium chlorate (59.0)	5 kg	\$ 27.64
		25 kg	\$ 110.00
Tri Cornox	benazolin (2.5)	20 litre	\$ 197.45
<b><u>SHELL AGRICULTURE</u></b>			
Shell Alachlor	alachlor (50.0)	5 litre	\$ 77.50
		20 litre	\$ 290.00
Banvel 200	dicamba (20.0)	5 litre	\$ 101.45
		20 litre	\$ 399.80
Banvel D	2, 4-D (40.0) plus dicamba (7.5)	5 litre	\$ 59.95
		20 litre	\$ 237.80
Bladex	cyanazine (50)	9 kg	\$ 121.77
Broadside	2,4,5-T (60.0)	20 litre	\$ 399.80
Cearex 4	dicamba (1.32)	5 litre	\$ 48.75
	MCPA (10.5)	20 litre	\$ 175.00
	Mecoprop (42.1)	200 litre	\$1818.30
Envoy	cyanazine (11.8)	2.8 kg	\$ 33.32
	MCPA (53.5)	12 kg	\$ 142.80
Shell Paraquat	paraquat (20.0)	5 litre	\$ 69.15
		20 litre	\$ 274.20

Salvo	dicamba (1.7) dichlorprop (23.3) MCPA (10.7) mecoprop (21.0)	20 litre	\$ 205.00
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### YATES

#### **Non hormone**

Alachlor 50	alachlor (50.0)	5 litre	\$ 77.25
		20 litre	\$ 282.00
Amitrole	amitrole (40.0)	5 litre	\$ 68.50
		20 litre	\$ 258.50
Hoefluran	triflurin (40.0)	5 litre	\$ 72.38
		20 litre	\$ 269.66
Kerb 50W	propyzamide (50.0)	1.5 kg	\$ 99.87
Tenoran 50 WP	chloroxuron (50.0)	2 kg	\$ 82.25
Vindex SDA	simazine (40.0) delapon (25.0) amatrole (12.5)	2.5 kg	\$ 111.03

### MONSANTO

Avadex	triallate (40.0)	20 litre	\$338.20
Lasso	alachlor (50.0)	10 litre	\$149.00
Roundup	glyphosphate (36.0)	1 litre	\$ 36.00
		5 litre	\$135.00
		20 litre	\$399.00

### BAYER

Sencor 70 DF	metribuzin (70.0)	2 kg	\$227.20
Tribunil 70 WP	methabenzthiazuron (70)	1.5 kg	\$ 78.00

### BASF

Alicep	chlorbufam (20.0)	2 kg	\$ 112.02
	chloridazon (25.0)	25 kg	\$1313.75
Amiben	chloramben (83.0)	5.45 kg	\$ 255.50
Basagran	bentazone (48.0)	1 litre	\$ 27.25
		5 litre	\$ 130.25
		20 litre	\$ 500.00
Linex	Linuron (48.0)	9.47 litre	\$ 252.58
Pyramin FL	chloridazon(43.0)	3 litre	\$ 116.75

### **2.12.2 Insecticides**

For the prescribed rates of application for the various chemicals, and the insects they control, see Section 17 in the Lincoln College Technical Manual, "Weed and Pest Control" or refer to the book "New Zealand Pest and Beneficial Insects", R.R. Scott (Editor), published by Lincoln College, 1985.

For full information regarding common names, propriety names and percent a.i., refer to the New Zealand Agricultural Manual (second edition) published by Agrichemical Manual Partnership.

Trade Name	Active Ingredient (%)	Unit Size	Retail Price
<u>ICI NEW ZEALAND LTD.</u>			
Actellic Dust	pirimiphos - methyl(50)	5 kg	\$ 36.00
		25 kg	\$123.00
Actellic EC		1 litre	\$ 37.00
		5 litre	\$162.00
Actellic S.G.		90 g	\$ 11.00
Ambush 50 E.C.	permethrin (50.0)	500 ml	\$ 93.50
Attack	pirimiphos-methyl(47.5)	1 litre	\$ 34.00
	permethrin (2.5)	5 litre	\$160.00
Pirimor 50	pirimicarb (50.0)	1 kg	\$ 45.35
Thimet	phorate (20.0)	15 kg	\$ 93.00
<u>FARMERS FERTILISER LTD. (GST inclusive)</u>			
Caterkill 60	fenitrothion (60.0)	5 litre	\$ 07.60
		20 litre	\$385.00
Decis 2.5 EC	deltamethrin (2.5)	1 litre	\$101.04
Ispray Lindane 50 W	lindane (50.0)	2 kg	\$ 61.91
Malathion 25 W	maldison (25.0)	2 kg	\$ 23.50
<u>IVON WATKINS-DOW</u>			
Bactospeine WP		2 kg	\$105.38
Cropsure 20-G		15 kg	\$ 86.25
Lorsban 40EC	chlorpyrifos (40.0)	2 litre	\$ 76.18
		5 litre	\$185.75
		20 litre	\$707.60
Lorsban 50W	chlorpyrifos (50.0)	2 kg	\$ 89.76
Nexion 40EC	bromophos (40.0)	5 litre	\$ 94.85
		20 litre	\$368.20
Protek S		20 litre	\$384.80
Topsin M-4A	thiophanate-methyl (40.0)	5 litre	\$144.00
<u>SHELL</u>			
Bidrin conc.	dicrotophos (103.0)	2.5 litre	\$ 98.00
Counter 20 G	terbufos (20.0)	20 Kg	\$226.00
DDT conc.	DDT (20.0)	5 litre	\$ 42.50
		20 litre	\$166.00
Diazinon 20G	diazinon (20.0)	25 kg	\$178.50
Diazinon 80 EC	diazinon (80.0)	5 litre	\$117.05

		20 litre	\$446.00
Dieldrite 25	dieldrin (25.0)	20 litre	\$394.40
Lindane pellets	lindane (20.0)	25 kg	\$204.50
Sumicidin 10	fenvaletrate (10.0)	1 litre	\$ 46.98
		2.5 litre	\$114.35
		20 litre	\$892.40
Sumicidin 20 WP	fenvaletrate (20.0)	2 kg	\$210.14
Vapona conc.	dichlorvos (1080 g/l)	7.5kg pail	\$770.00
		1 litre	\$ 25.58
		2.5 litre	\$ 58.55
Verthion BC	fenitrothion (60.0)	5 litre	\$ 85.25
		20 litre	\$331.00
Verthion pellets	fenitrothion (10.0)	25 kg	\$128.75

### **Oil Sprays**

Sunspray	oils-mineral- insecticidal (97.0)	5 litre	\$ 24.80
		20 litre	\$ 83.00
		205 litre	\$811.80

### YATES

Apollo 50 SC	clofentezine (50.0)	2 litre	\$410.13
Maldison 50 EC	maldison (50.0)	5 litre	\$ 42.95
		20 litre	\$153.80
Thuricide HP	bacillus thuringiensis	1 kg	\$53.46

### BASF

Malix 35.5 EC	endosulfan (35.5)	5 litre	\$ 75.65
		20 litre	\$295.00
Perfeththion S	dimethoale (50.0)	1 litre	\$ 19.71
		5 litre	\$ 94.00
Monitor	methamidophos (60.0)	5 litre	\$174.75
		20 litre	\$671.00

### BAYER

Dasanit 5G	fensulfothion (5.0)	25 kg	\$ 130.50
Disyton 10G	disolfoton (10.0)	15 kg	\$ 88.95
Metasystox	demeto-s-methyl (25)	25 litre	\$623.00

### **2.12.3 Fungicides**

For the prescribed rates of application for the various chemicals, and the diseases they control, see Section 17 in the Lincoln College Technical Manual, "Weed and Pest Control".

### ICI NEWZEALAND LTD

Impact	flutriafol(12.5)	5 litre	\$197.00
Milcurb	buririmate (25.0)	5 litre	\$ 71.50

**Prices Exclude GST**

CIBA GEIGY NZ LTD

Apron	metalaxly (35.0)		
	captan (35.0)	20 kg	\$2541.00
Tilt 250EC	propiconazole (25.0)	2 litre	\$240.07

SHELL

Kocide 101	cupric hydroxide (50.0)	1.8 kg	\$ 23.76
		10 kg	\$115.80
Syllit 40S	dodine (40.0)	5llitre	\$92.30
		20 litre	\$354.40

MAY & BAKER

Mistral		1 litre	\$ 54.34
		5 litre	\$261.25

BASF

Calxin	tridemorph (75.0)	5 litre	\$204.05
		20 litre	\$805.20
Corbel	fenpropimorph (75.0)	5 litre	\$238.75

BAYER

Bayfidan M	triadimenol (12.5)		
	tridemorph (37.5)	5 litre	\$285.85
Baytan IM	triadimenol (15.0)	10 Kg	\$1359.30

DUPONT

Benlate	benomyl (50.0)	1 Kg	\$63.90
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FARMERS FERTILISER LTD

Sportak 45 EC	prochloraz (45.0)	5 litre	\$288.75
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YATES

Bravo 500F	chlorothalonil	5 litre	\$141.00
		20 litre	\$461.18
Captan 80WP	captan	2.5 kg	\$38.77
		20 kg	\$279.65
Thiram	thiram	2 kg	\$23.50
		25 kg	\$279.06

**2.12.4 Wetting, Spreading and Marking Agents**BASF

Citowett	alkylaryl polyglycol	1 litre	\$ 10.84
(sticker/spread)	ether	5 litre	\$ 47.55
		20 litre	\$178.40

ICI NEW ZEALAND

Agral LN wetting agent	5 litre	\$ 16.44
	20 litre	\$ 53.00
Contact wetter, sticker spreader	1 litre	\$ 10.00
	5 litre	\$ 40.00
	20 litre	\$150.00
Triton X45	2 litre	\$ 24.16
	5 litre	\$ 57.90

MAY & BAKER (GST inclusive)

Emulsifier X-45	2 litre	\$ 23.50
(Use with Asulox)	5 litre	\$ 57.90
	200 litre	\$214.50

SHELL (GST inclusive)

Shell Super Spread	5 litre	\$ 16.78
	20 litre	\$ 59.18

**2.12.5 Straw Shortener**

BASF (GST inclusive)

Cycocell	25 litre	\$282.50
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## 2.13 FERTILISER AND LIME

### 2.13.1 Fertiliser

RAVENSDOWN FERTILISER CO-OPERATIVE LTD As at 1 August  
1987 N.B. RETAIL PRICE LIST

Note: For bagged product in 50 kg bags add \$31.20 per tonne

N	P	K	S		Price per tonne bulk	
					<u>Hornby</u>	<u>Napier</u>
0	9	0	11	Super (Drilling Grade)	\$181.48	
0	11	0	8	Supergro Longlife	\$181.48	171.60
0	10	0	1	Phospar (PARPR)	\$322.40	
0	13	0	0	RPR (Nth Carolina)	\$155.69	151.11
0	9	0	11	Supergro Boron	\$208.21	234.00
0	9	0	11	Supergro Cobalt	\$203.94	182.21
0	9	0	11	Supergro Copper	\$213.30	207.79
0	9	0	11	Supergro Molybdate	\$188.76	179.19
0	9	0	11	Supergro Selenium	\$194.79	185.22
0	8	8	9	Supergro 15% Potash	\$198.43	190.32
0	6	15	7	Supergro 30% Potash	\$211.12	204.46
0	4	25	5	Supergro 50% Potash	\$216.11	223.29
0	8	0	16	Supergro Pakihi Starter	\$221.31	
0	8	0	19	Supergro Sulphur Super	\$203.94	195.10
0	8	0	27	Supergro Sulphur Extra	\$222.25	
0	8	0	19	Supergro Molyb Sulp Super	\$210.08	
				Calclined Magnesite	\$502.32	502.32
0	5	15	15	Supergro 30% Pot. Sulp.	\$222.22	
6	7	0	14	Supergro 30% Nitrogen	\$197.81	
2	8	0	12	Supergro Turnip & Rape	\$189.70	
6	6	5	13	Supergro Multicrop	\$206.34	
8	4	8	14	Supergro Orchard Regular	\$211.22	
<u>Special Mixtures</u>						
0	9	0	17	Supergro Longlife Sulphur	\$205.95	
0	8	0	26	Suprgr. Longlife Sulp Extra	\$226.26	
0	7	15	12	West Coast - Suprgr Longlife Sulphur 70%, Potash 30%	\$219.16	
0	8	13	10	West Coast - Nth Carolina Rock 65% Potash 25%, Sulphur 10%	\$206.47	

Cropmasters

18	20	0	0	Cropmaster DAP	\$499.20
13	14	15	0	Cropmaster 13	\$433.47
15	10	10	7	Cropmaster 15	\$386.88
20	10	0	12	Cropmaster 20	\$386.88
11	12	20	0	Cropmaster Potato High K.	\$410.18

Potash

0	0	50	0	Potassium Chloride Std.	\$266.24
0	0	50	0	Potassium Chlo. Granulated	\$266.24
0	0	42	17	Potassium Sulphate	\$789.36

Nitrogen

21	0	0	24	Ammonium Sulphate (Std)	\$222.04
21	0	0	24	Ammonium Sulphate (Gran.)	\$266.24
46	0	0	0	Urea(Nrich 40kg,500kg bags)	\$416.00
46	0	0	0	Urea (Nrich, 1 tonne bags)	\$400.40
20	0	0	0	Liquid Nitrogen	\$224.12

Nitrophoska

12	10	10	1	Nitrophoska	\$583.44	514.80
15	7	5	4	Nitrophoska Yellow	\$751.92	
12	5	14	6	Nitrophoska Blue Special	\$826.80	
12	5	14	3	Nitrophoska Blue T.E.	\$733.20	514.80

BASFFoliar Fertiliser

Fetrilon 13% Fe (Iron Chelate)	2 kg	\$ 35.80
	25 kg	\$417.00
Fetrilon Combi One		
Chelated Trace Elements	2 kg	\$ 50.56
	25 kg	\$580.50
Fetrilon Combi Two		
Chelated Trace Elements	2 kg	\$ 49.80
	25 kg	\$564.50

HATUMA LIME CO.

Dicalcic phosphate	per tonne	\$124.60
15% potassic dicalcic phosphate	per tonne	\$162.20
30% potassic dicalcic phosphate	per tonne	\$197.80



### 2.13.2 Lime

#### Whiterock Lime Co. Ltd (North Canterbury)

Cost per tonne ex quarry.

Dried Lime	per tonne	\$ 13.80
Blend Lime	per tonne	\$ 11.50
Calcined Lime (Burnt Lime)	per tonne	\$150.00

#### Hatuma Lime Companies

Agricultural lime	per tonne	\$ 12.50
Cropfine lime	per tonne	\$ 20.00
Limeflour	per tonne	\$ 42.50

#### Taylor's Lime Co. Ltd (Oamaru)

Agricultural lime	per tonne	\$ 15.00
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#### McDonald's Lime Ltd (Otorohanga)

Agricultural lime	per tonne	\$ 16.50
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## 2.14 DRAINAGE, IRRIGATION AND WATER SUPPLY

### 2.14.1 Drainage Materials

#### Field Tiles

##### BOYES (1987 prices)

100 mm	\$2.20
150 mm	\$4.40
250 mm	\$11.00

#### A.H.I.

##### Drainflow (corrugated punched or unpunched)

<u>Diameter</u>	<u>Region</u>	<u>Coil Length Available</u>	<u>Price/m</u>
65 mm	5	30 m and 150 m	\$ 1.59
	6	30 m and 150 m	\$ 1.39
110 mm	5	30 m and 100 m	\$ 2.65
	6	30 m and 100 m	\$ 2.38
160 mm	5	40 m	\$ 5.18
	6	45 m	\$ 4.59

Fittings e.g. Junctions, reducers and couplings range from \$1-\$12.

- \* Regions: 5 - Those South Island areas north of a line drawn from Hampden to Wanaka.  
6 - Those South Island areas south of and inclusive of Wanaka and Hampden.

#### Concrete Culvert Pipes

##### MCKENDRYS

	<u>Weight</u>	<u>Price</u>
150 mm x 900	59 kg	\$18.50
225 mm x 900	73 kg	\$22.00
305 mm x 900	100 kg	\$28.50
375 mm x 900	130 kg	\$33.00
450 mm x 900	160 kg	\$37.00
610 mm x 900	250 kg	\$50.00
750 mm x 900	275 kg	\$63.00
900 mm x 900	300 kg	\$85.00
305 mm x 1.200	130 kg	\$43.50

#### Backfill Shingle

(Per cubic metre) \$12 to \$15 in the trench.

One cubic metre backfills approximately 15 metres of drain.

### 2.14.2 Septic Tanks

#### HUMES

2730 litres plus fittings	\$688.38
3300 litres	\$831.61

Prices Exclude GST

### **2.14.3 Border Dyke Irrigation (1987 estimates)**

#### 1. Earthworks

Average cost for Canterbury conditions would be \$750 to \$850/ha. However the range would be \$400/ha (Mid Canterbury) to \$1500/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 from \$125 each (230 litres/sec) to \$177 (350 litres/sec).

##### **Sills**

Standard sills (2.5 m boards) cost between \$25 and \$35 each. There are various other designs which would generally be more expensive.

##### **Weirs**

Vary from \$138 (cheap - not generally recommended) to \$330 each.

##### **Access Crossings**

Consisting of 2 pipes plus head walls

450 mm diameter pipe	\$ 600.00
600 mm diameter pipe	\$1080.00
750 mm diameter pipe	\$1220.00

### **2.14.4 Spray Irrigation System Costing**

(Contributed by Mr. L.N. Austin, Austin and Jones Irrigation Systems, 1986. Update for 1988 unfortunately unavailable at time of print.)

#### Introduction

Spray Irrigation systems are tailor made to fit the property and the farmer and are not "off the rack" schemes etc.

There are many different ways of irrigating a property depending on:

- The farm to be irrigated
  - Crop type
  - Soil type
- and
- Individual farmer operating the system

#### 1. Costs per Hectare

These will vary considerably depending on soil types and water application.

##### Examples

**A. Medium/Heavy Soil Property of 150 ha.**

- Flow of .35 litres/second/ha	
- Water at continuous flow from community supply turn-out	
- Incorporating a Surface Centrifugal Pump Unit	
Irrigator	\$50,925
Pipe	\$89,095
Pump	\$ 6,786
Electrical	\$ 2,750
Connection Charge	\$ 2,050
Installation	\$ 5,852
Hydrants	\$ 9,880
Shed	\$ 450
	<u>\$167,248</u>

Cost per ha \$ 1,115

**B. Light/Medium Soil Property of 200 ha**

- Flow of .35 litres/second/ha	
- Water from Irrigation Bore of 300 mm x 100 metres depth	
- Incorporating a Submersible Pump Unit	
2 Irrigators	\$104,220
Pipe	\$105,500
Pump	\$ 30,938
Electrical	\$ 9,020
Connection Charges	\$ 8,413
Hydrants	\$ 11,700
Installation	\$ 6,930
Well Drilling	\$ 26,500
Screen	\$ 1,350
Rising Column	\$ 5,698
Pump Shed	\$ 450
	<u>\$305,021</u>

Cost per ha \$ 1,525

**2. Running Costs**

As an example running costs are based on 22 hour/day running time of plants.

Example A - 40 kW @ 6.5c/kW hour operating

Example B - 100 kW @ 6.5c/kW hour operating

**3. Pumping Units**

Today the majority of irrigation units are electrically operated.

Should a price be required on Diesel or PTO drive pumps refer to AUSTIN & JONES IRRIGATION SYSTEMS LTD for these price [or prices in Section 2.14.10 in this manual]

#### 4. Mainlines

Depending on pressure requirements of irrigator and elevation levels of property 2-Pressure ratings of pipe are incorporated.

Class B for Spraylines, Roto Rainers, Low Pressure Booms

Class C for Travelling Irrigators, Hard Hose Irrigators

Prices of mainlines including P.V.C. pipe, Hydrants and Installation per metre:

<u>Diameter</u>	<u>Class B</u>	<u>Class C</u>
100 mm	9.10 c	10.50 c
125 mm	11.20 c	14.20 c
150 mm	14.50 c	19.00 c
200 mm	20.75 c	27.85 c

#### 5. Irrigators

As mentioned there are over 30 different types and sizes of irrigating devices on the market (apart from hand shift spray- lines). The matching of these to a particular property depends on various factors including:

- Water Availability
- Area to Irrigate
- Soil Types
- Crops etc to Irrigate
- Most importantly, Farmer Input

Further information on specific detail of the above can be obtained by contacting AUSTIN AND JONES IRRIGATION SYSTEMS, and by reading the following section.

### **2.14.5 Irrigator Models and Equipment**

#### **BRIGGS IRRIGATION LIMITED**

##### **Travelling Irrigators**

Briggs Model 250 Roto Rainer & 5in Hose Trailer	\$35775.00
Briggs Model 250 Linear Rain Turbine Drive plus 5in Hose Trailer	\$41275.00
5in hose depending on make ranges from	\$67.50-\$82.17/m
Briggs Model 125 Roto Rainer & 4.5in Hose Trailer	\$25987.00
4.5in hose depending on make ranges from	\$62.50-\$78.88/m
Briggs Model 80 Roto Rainer & 3.5in Hose Trailer	\$17600.00
3.5in hose depending on make ranges from	\$40.65-\$49.85/m
Briggs Model 25 Roto Rainer & 2.5in Hose Trailer	\$9975.00

2.5in hose depending on make ranges from	\$19.25-\$24.70/m
Briggs Model 10 Roto Rainer & 2in Hose Trailer	\$2950.00
2in hose depending on make ranges from	\$12.50-21.15/m

N.B. Hose lengths vary according to water supply and farm layout.

### SOUTHERN CROSS MACHINERY

#### Travelling Irrigators

Irrigator complete with sprinklers, hose (Angus), hose ends, starting coupling.

PCC (Model 30)	45 mm x 100 m Angus Hose	\$6325.00
	50 mm x 100 m Angus Hose	\$6545.00
	Powerwinder with engine	\$1235.00
TCD 2000	65 mm x 150 m	\$13186.00
	Brakes	\$ 86.00
	Front wheels	\$118.00
	Stake anchor	\$ 56.00
TCE 3000	75 mm x 150 m	\$19234.00
	88 mm x 150 m	\$20928.00
	Brakes	\$ 86.00
TCL 7500	100 mm x 200 m	\$31063.00
	88 mm x 200 m	\$27150.00
TCM 9000	114 mm x 200 m	\$33645.00
Linear Boom	125 mm x 200 m	\$44500.00

#### Aluminium Tube (1987 prices)

	50 mm x 7.5 m	\$ 49.00
	75 mm x 9.0 m	\$ 86.00
	100 mm x 9.0 m	\$111.00

#### Couplings complete with Vee Seals (1987 prices)

	50 mm	\$32.00
	75 mm	\$ 38.50
	100 mm	\$ 51.00

#### Sprinklers (1987 prices)

Naan	223/96	5.6 nozzle 3/4" Male	\$ 26.50
	254/96	7.0 nozzle 1" Female	\$ 40.00
	5033	4.8 nozzle 3/4" Male	\$ 15.50

**Prices Exclude GST**

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### Pump Units Complete With Motor (Starline 1987 prices)

40 x 32 - 230	(11 kW)	9 lps @ 70m	\$3,740.00
65 x 50 - 230	(18.5 kW)	20 lps @ 60m	\$4,297.00
80 x 65 - 230	(30 kW)	28 lps @ 70m	\$4,884.00
80 x 65 - 280	(37 kW)	25 lps @ 90m	\$5,800.00
100 x 80 - 280	(45 kW)	40 lps @ 75m	\$7,030.00
125 x 100 - 280	(75 kW)	65 lps @ 90m	\$8,250.00

### Micro Irrigation

Microjets	\$ 0.36
7102 Mini Sprinkler c/w stake and tube	\$ 3.00

### FECO

Baars Irrigation Systems	\$22900
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## **2.14.6 Remote Control Systems**

### Radio Control of Pumps for Reservoir (1986 Prices)

Remote Control Systems Ltd supply the following equipment for radio control of pumps according to water level in the reservoir.

Reservoir transmitter and receiver equipment, solar panel powered, differential water level sensing. \$2800

All aerials, cable and fittings are inclusive, but prices will vary according to aerial requirements and scope of indications required (up to 4 signals).

### Radio Control Units

It is now possible to control the pump from the irrigator using a radio controlled system.

Remote Control Systems Ltd can supply the following:

Portable transmitter and receiver	\$2200.00
Aerials, cable, battery, plugs etc., inclusive.	

Costs for the radio control system vary over a small range due to the variation in starter circuits.

## **2.14.7 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.

The Ministry of Works and Development on behalf of the Minister is responsible for the operation and maintenance of community irrigation schemes. However, in the case of Greenstreet, Loburn and Glenmark

Irrigation Schemes, this role has been delegated to the respective county councils.

Water charges for 1987/88 season for community irrigation schemes in Canterbury are as follows:

<u>Scheme</u>	<u>Charges</u>
Ashburton Lyndhurst	\$19.50 per ha (1986/87)
Mayfield Hinds	\$16.50 per ha (1986/87)
N.B. Increased charges for these have not yet been agreed on.	
Morven Glenavy	Border dyke \$28/ha, Spray irrigation \$16.80/ha, extra water \$1.67/1000 cubic metres.

Valetta Not applicable as farmers running scheme.

Waiau Post development interim charge \$68/ha.

### Sinking a Well

When a farmer proposes to sink a well for any purpose he must apply to the North Canterbury Catchment Board for a permit to do so.

### Water Rights

If it is proposed to take or use water for any purpose other than for domestic or stock, or for fire fighting, application must be made to the Board for a water right.

The Board requires a deposit against its costs of processing and investigating the application to be paid at the time of making application. Final costs are determined by the Board when it considers the application and the applicant will receive either a refund or an account for the difference between his deposit and the Board costs.

As a general guide only, the following costs can be expected for straight forward applications to which there are no objections.

Ground water : \$200 - \$240

Surface water: \$200 - \$240

Cost includes application fee, administration (Incl. advertising, staff time in processing and issuing right), and investigation (generally 4-5 hrs staff time: including mileage, travel time, on-site investigation and preparation of reports)

### Schedule of Water Right Application Fees

- Deposits Against Costs

Prices Exclude GST

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- a) Application for a right to:  
take from surface water (minor, e.g. dairyshed washing)  
take from groundwater \$200
- b) Application for a right to:  
take from surface water (irrigation, community water supply schemes)  
dam (or stopbank)  
divert (whole stream or major proportion of flow, river training works)  
discharge of cooling water or agricultural wastes (e.g. piggery, dairyshed wastes)  
discharge stormwater (land drainage water)  
discharge to groundwater from a single domestic septic tank \$300
- c) Application for right to:  
discharge of waste or water containing waste to water, or water containing waste to land (major stormwater or land drainage water, e.g. subdivisions)  
multiple rights (e.g. dam, divert, take, discharge, for irrigation scheme) \$500.00
- d) Special Category:  
 For example, applications for industrial complex multiple rights, community sewage schemes, multiple rights for disposal of septic tank effluent within a subdivision, major irrigation schemes. \$2000.00

This fee and deposit is lodged with the Board to enable an initial inspection and preliminary report upon which a further deposit against investigations will be based, such deposit being reached in discussion with and by resolution of the Board.

### **2.14.8 Stock Water Supply Charges**

#### Community Water Supply Schemes

Here the cost to the farmer varies, so we have taken the Malvern County Water Schemes. These charges range from \$38.50 to \$110.00 per 1000 litres (maximum hourly flow rate), or \$55.00 to \$240.00 per connection. (domestic water in townships)  
 Water Race charge is \$4.93 per hectare.

#### County Stock Water Races

The following table shows the charges made by the Paparua County Council.

## Stock Water - Area Charges

<u>Area (ha)</u>	<u>Charges</u>
Under 0.5 ha	\$ 42.72
0.5 -	\$ 42.72 plus \$0.8936 per additional .5 ha to 8ha
8 -	\$ 47.76 plus \$1.7864 per additional .5 ha to 40ha
40 -	\$142.98 plus \$1.6082 per additional .5 ha to 80ha
80 -	\$271.64 plus \$1.4298 per additional .5 ha to 121ha
121 -	\$389.25 plus \$1.2509 per additional .5 ha to 161ha
161 -	\$489.13 plus \$1.0724 per additional .5 ha to 202ha
202 -	\$577.60 plus \$0.8936 per additional .5 ha to 242ha
242 -	\$648.73 plus \$0.7147 per additional .5 ha to 283ha
283 -	\$708.05 plus \$0.5361 per additional .5 ha to 323ha
323 -	\$750.40 plus \$0.3575 per additional .5 ha to 364ha
364 -	\$780.60 plus \$0.1787 per additional .5 ha to 404ha
Over 404	\$794.23 plus \$0.1489 per additional .5 ha

### **2.14.9 Well Drilling**

#### MCMILLAN WATER WELLS LTD

		Price plus stainless steel screen (avg 3m)
5 inch	(125mm)	\$130/m \$220.00/m
6 inch	(150mm)	\$160/m \$240.00/m
8 inch	(200mm)	\$190/m \$245.00/m
9 inch	(225mm)	\$200/m \$325.00/m
10 inch	(250mm)	\$220/m \$375.00/m
12 inch	(300mm)	\$265/m \$450.00/m

Developing and test pumping for irrigation wells \$65.00/hr

### **2.14.10 Well Liners**

#### HUMES

760mm x 760mm Deep	\$70.96
1060mm x 610mm Deep	\$70.96

### **2.14.11 Pumps**

#### D.MCL. WALLACE LTD (1987 prices)

##### Powerflo Pumps and Pressure Outfits

Model A	With Bracket and Drive	\$1318.00
	75 Gallon Pressure Outfit	\$2256.00
	90 Gallon Pressure Outfit	\$2314.00
	108 Gallon Pressure Outfit	\$2366.70

##### Turbine Pumps

##### Turboflo Pumps and Pressure Outfits

3/4" Turboflo with 1/2 hp 1 Ph Elec Motor	\$434.10
33 Gallon Pressure Outfit	\$1144.30

Prices Exclude GST

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1" Turboflo with 3/4 hp 1 Ph Elec Motor	\$446.60
3/4" Turboflo 33 Gallon Presure Unit 3/4hp	\$1214.00

Centrifugal Pumps - Dynajet Motor Mounted

Dynajet Model	35.4 hp with 1" suction 3/4" delivery	\$687.50
	50.5 hp with 1" suction 3/4" delivery	\$812.50
	65.8 hp with 1 1/4" suction 1" delivery	\$784.10
	70.8 hp with 1 1/4" suction 1" delivery	\$886.40
	90.3 hp with 1 1/4" suction 1" delivery	\$1153.00

Dynaflor Model

5100	.4 hp with 1" suction 1" delivery	\$403.50
5130	.84 hp with 1" suction 1" delivery	\$426.20
6200	1.3 hp with 1 1/2" suction 1 1/4" del.	\$545.50

Drainage Pumps

H104W	\$368.00
H180D	\$479.70
H116D	\$540.00
H120D	\$1268.50
H123W	\$1543.90
H108WA	\$412.90
H104WA	\$484.40
H123WA	\$1478.10

608W	\$586.40
616W	\$637.00
Comet Pump	\$626.40
H718 WHD	\$865.60

**2.14.12 Water Supply Costs**

**P.V.C. Pressure Pipe**

AHI

Low Density Polythene Pipe(For low pressure water systems)

<u>Working Pressure</u>	<u>Size(mm)</u>	<u>Price per metre</u>
900 kpa (130psi)	15	\$0.48
800 kpa (116psi)	20	\$0.85
650 kpa (94psi)	25	\$1.03
500 kpa (73psi)	32	\$1.28
450 kpa (65psi)	40	\$1.56
300 kpa (44psi)	50	\$2.14

High Density Polythene Pipe (\$ per metre)

<u>Size(mm)</u>	<u>Class B</u>	<u>Class C</u>	<u>Class C</u>
	<u>600kpa(87psi)</u>	<u>900kpa(130psi)</u>	<u>1200kpa(174psi)</u>
15	-	\$0.58	\$0.64
20	\$0.98	\$1.02	\$1.38
25	\$1.35	\$1.55	\$2.10
32	\$1.80	\$2.31	\$2.92
40	\$2.44	\$3.15	-
50	\$4.15	\$5.59	-

**2.14.13 Concrete Water Troughs**

HUMES

	<u>Gallons</u>	<u>Height (mm)</u>	
Circular:			
CB500	110	380	\$132.96
CB750	165	380	\$177.27
CB1000	200	600	\$208.42
CB1500	330	600	\$249.14
CB2500	550	600	\$359.34
Rectangular:			
RB300	66	380	\$113.31
RB400	90	380	\$144.93

**2.14.14 Valves and Floats**

BELL-BOOTH

4 1/2" Dolphin Float		\$ 2.34
6" Dolphin Float		\$ 3.78
Full flow trough valves	3/4" x 69	\$21.66
	3/4" x 72	\$23.48
Hi Low trough valves	1/2" x 220	\$13.02

## 2.14.15 Tanks

### Concrete

#### HUMES

<u>Litres</u>	<u>Gallons</u>	<u>Diameter(m)</u>	<u>Height(m)</u>	<u>\$ Plaster</u>	<u>\$ Spun</u>
1820	400	1.42	1.30	\$ 491.10	\$ 561.41
2730	600	1.68	1.37	\$ 694.72	\$ 757.45
3640	800	1.83	1.45	\$ 802.53	-
4550	1000	1.83	1.91	\$ 838.46	-
9100	2000	2.82	1.83	\$1317.58	\$1249.84
13650	3000	2.82	2.44	\$1557.14	-
18200	4000	3.43	2.44	\$1796.70	-
22750	5000	3.43	2.74	\$1976.37	\$2352.80
Water level indicator				\$ 96.58	

### Timber Tanks

#### MCALPINES

<u>Type</u>	<u>Capacity (gallons)</u>	<u>Polythene lined \$</u>	<u>Butynol Lined \$</u>
Header Tank	250	\$ 557.70	-
Header Tank	500	\$ 810.00	-
Header Tank	1000	\$ 982.00	-
A6	2500	\$2029.50	\$2780.80
A5	5000	\$2899.60	\$4043.60

## 2.15 SHELTER AND FARM FORESTRY COSTS

### 2.15.1 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.

#### HALKETTS NURSERY

Pinus Radiata	1 year	\$ 16.20 per 100, \$108.00 per 1000
	1 1/2 year	\$20.00 per 100/\$123 per 1000
	2 year	\$23.00 per 100/\$135 per 1000
	2 year hedging grade	\$ 20.00 per 100
Pinus Muricata	2 year	\$7.00 per 10/\$45 per 100
Pinus Coulterii		\$11.80 per 10/\$103.50 per 100
Nigra	2 year	\$40.00 per 100/\$259 per 1000
	3 year	\$45.00 per 100/\$270 per 1000
Patula		\$11.80 per 10/\$103.50 per 100
Pinaster		\$7.00 per 10/\$45 per 100
Ponderosa		\$7.00 per 10
Arizonica		\$11.00 per 100/\$103.50 per 1000
Macrocarpa		\$7.80 per 10/\$56.50 per 100
Poplar- all cultivars		\$40 per 100
Douglas Fir/Oregon	2 year	\$45 per 100/\$328 per 1000
	3 year	\$54.50 per 100
Cedrus deodara	2 year	\$60.00 per 100
	3 year	\$70 per 100
Eucalyptus- all cultivars		\$11 per 10/\$103.50 per 100
Willows - all cultivars		\$40 per 100
Acer Negundo (Box Elder)		\$6.80 each \$50.00 per 10
Alnus Glutinosa (Black Alder)		\$11.80 per 10/\$103.50 per 100
Betula Pendula (Silver Birch)		\$6.50 each \$50.00 per 10
Cortaderia Selloana(Pampas Grass)		\$8.50 per 10/\$68.00 per 100
Phormium Tenax(N.Z. Native Flax)		\$11.80 per 10/\$103.50 per 100
Dononea Viscosa		\$11.80 per 10/\$103.50 per 100
Leyland Cyprus		\$265 per 100

#### MILLICHAMPS

Tree lucerne	\$114.00 per 100
Wattles (Acacias) - all cultivars	\$100.00 per 100
Redwoods (Sequoia)	\$55.00 per 100
Pampas	\$75.00 per 100
Cypress - all cupressus cultivars	\$55.00 per 100

### 2.15.2 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 Forest Service.

## 2.16 FENCING EQUIPMENT AND MATERIALS

### 2.16.1 Wire

#### P.G.G.

	<u>Gauge of Wire</u>	<u>Length of 25 kg coil</u>	<u>\$ per coil</u>
Plain Wire	4mm (no.8)	253m	\$42.07
	3.55mm (no.9)		\$44.36
	3.15mm (no.10)	408m	\$44.36
	2.5 mm (no.12)	648m	\$44.96
	2.0 mm (no.14)	408m	\$49.84
	3.15mm HT		\$46.10
	2.5mm HT		\$46.38
	2.0mm HT		\$51.51
	1.6mm HT		\$53.56
Barbed Wire	2.5mm x 75mm barbs	240m	\$61.29
	2.5mm x 100mm		\$61.29
	1.6mm HT x 100		\$73.63
Lacing Wire	2mm galvanised	5 kg coil	\$15.06
		10 kg coil	\$30.13
	1.6mm galvanised	5 kg coil	\$17.00
		10 kg coil	\$34.00

### 2.16.2 Posts

#### HICKSON'S TIMBER IMPREGNATION CO (NZ) LTD

(prices are retail, ex yard)

#### Posts/Stays

No. 1 Round	1.8 metre x 115mm S.E.D. minimum	\$ 9.75
No. 2 Round	1.8 metre x 90mm S.E.D. minimum	\$ 7.25
No. 1 Round	2.4 metre x 115mm	\$13.25
No. 2 Round	2.4 metre x 90mm	\$ 8.75
No. 1 Round	2.7 metre x 115mm	\$14.50
No. 2 Round	2.7 metre x 90mm	\$11.75
No. 1 Round	3.0 metre x 115mm	\$16.75
No. 2 Round	3.0 metre x 90mm	\$13.00
No. 1 1/2 Round	1.8 metre x 165mm face	\$ 8.75
No. 2 1/2 Round	1.8 metre x 165mm face	\$ 7.25
No. 1 1/2 Round	2.4 metre x 175mm face	\$14.00
No. 2 1/2 Round	2.4 metre x 150mm face	\$10.00
No. 2 1/2 Round	2.7 metre x 175mm face	\$15.25
No. 3 1/2 Round	2.7 metre x 150mm face	\$11.75
No. 1 1/2 Round	3.0 metre x 200mm face	\$22.50
No. 2 1/2 Round	3.0 metre x 175mm face	\$17.50
1/4 - Round	1.8 metre x 90mm faces	\$ 5.25

1/4 - Round	2.4 metre x 90mm faces	\$ 8.75
1/4 - Round	2.7 metre x 100mm faces	\$12.50
1/4 - Round	3.0 metre x 100mm faces	\$14.00

Strainers/Stockyards:

No. 1 Round	1.8 metre x 200mm S.E.D. minimum	\$26.00
No. 2 Round	1.8 metre x 175mm S.E.D. minimum	\$21.25
No. 3 Round	1.8 metre x 150mm S.E.D. minimum	\$14.00
No. 1 Round	2.4 metre x 200mm S.E.D. minimum	\$35.25
No. 2 Round	2.4 metre x 175mm S.E.D. minimum	\$28.35
No. 3 Round	2.4 metre x 150mm S.E.D. minimum	\$19.25
No. 1 Round	2.7 metre x 200mm S.E.D. minimum	\$40.00
No. 2 Round	2.7 metre x 175mm S.E.D. minimum	\$31.25
No. 3 Round	2.7 metre x 150mm S.E.D. minimum	\$23.50
No. 1 Round	3.0 metre x 200mm	\$42.25
No. 2 Round	3.0 metre x 175mm	\$35.25
No. 3 Round	3.0 metre x 150mm	\$27.00
No. 1 Round	3.6 metre x 200mm S.E.D. minimum	\$57.50
No. 2 Round	3.6 metre x 175mm S.E.D. minimum	\$45.25
No. 3 Round	3.6 metre x 150mm S.E.D. minimum	\$35.25

Rails:

1/2-Round	3.6 metre x 125mm face	minimum	\$15.00
1/2-Round	4.8 metre x 125mm face	minimum	\$21.50
1/2-Round	6.0 metre x 125mm face	minimum	\$29.25

**Concrete**

MCKENDRYS

		Price
Light Square Strainers	6" x 6"	\$24.50
Medium Square Strainers	7" x 7"	\$29.00
Heavy Square Strainers	8" x 8"	\$37.50
Post Stays		\$14.00
Post Stays Blocks		\$5.00

**2.16.3 Battens**

CYCLONE

Height:	941 mm (36")	\$ 76.60 per 100
	940 mm (37")	\$ 77.51 per 100
	965 mm (38")	\$ 83.37 per 100
	1003 mm (39 1/2")	\$ 84.57 per 100

HICKSONS

Battens:

50 mm x 50 mm	1.12 m per 100	\$110.00
50 mm x 40 mm	1.12 m per 100	\$ 95.00

**Prices Exclude GST**



50mm x 50 mm                      2.00 m per 100                      \$210.00

## 2.16.4 Wire Netting

### CYCLONE

<u>Type</u>	<u>Height</u>	<u>Stay Spacing</u>	<u>Price/100m</u>
<u>Twinlock Hinge - Joint Boundary</u>			
<u>High Tensile</u>			
8 line	900 mm	300 mm	\$153.01
8 line	800 mm	150 mm	\$193.98
7 line	900 mm	150 mm	\$184.55
7 line	800 mm	300 mm	\$135.49
7 line	725 mm	150 mm	\$172.48
6 line	700 mm	300 mm	\$118.93
<u>Electric</u>			
5 line	525 mm	300 mm	\$ 94.05
<u>Goat Fence</u>			
9 line	980 mm	300 mm	\$170.83
<u>Tightlock Stiff Stay Boundary</u>			
<u>High Tensile:</u>			
7 line	900 mm	300 mm	\$151.27
8 line	900 mm	300 mm	\$162.11
9 line	900 mm	300 mm	\$182.02
8 line	750 mm	300 mm	\$159.44
7 line	600 mm	300 mm	\$139.92
<u>Medium Tensile:</u>			
7 line	900 mm	300 mm	\$175.64
8 line	750 mm	150 mm	\$230.66
9 line	900 mm	150 mm	\$261.79
<u>Medium Lightweight:</u>			
7 line	900 mm	300 mm	\$142.70
8 line	800 mm	300 mm	\$152.77
<u>Deer Fence:</u>			
17 line	1900 mm	150 mm	\$469.20
13 line	1900 mm	150 mm	\$406.22
13 line	1900 mm	300 mm	\$288.98
11 line	1550 mm	150 mm	\$326.91
11 line	1550 mm	300 mm	\$237.97

### Farm Mesh

75mm x 150mm x 4 mm diameter galvanised wire.

Roll Size:	30m long x 840mm wide	\$167.77 per roll
	30m long x 1150mm wide	\$228.73 per roll

### Silo Mesh

75mm x 75 mm x 4mm diam 16m x 2365mm roll size

Standard silo of 5m diameter x 2354mm high	\$340.29 per roll
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### HURRICANE

<u>Type</u>	<u>Height</u>	<u>Stay Spacing</u>	<u>Price/100m</u>
<b>High Tensile</b>			
8 line	900 mm	150 mm	\$200.43
7 line	900 mm	300 mm	\$147.40
7 line	800 mm	150 mm	\$178.16
7 line	725 mm	150 mm	\$172.48
6 line	700 mm	300 mm	\$118.93
<b>Stay Tight High Tensile Farm Fence</b>			
8 line	900 mm	150 mm	\$220.93
8 line	900 mm	300 mm	\$162.11
8 line	800 mm	300 mm	\$158.67
<b>High Tensile Deer Fence</b>			
13 line	1900 mm	150 mm	\$365.30
13 line	1900 mm	300 mm	\$270.07
12 line	1800 mm	300 mm	\$252.32
12 line	1500 mm	150 mm	\$342.15
<b>Stiff Stay Deer Fence</b>			
17 line	1900 mm	150 mm	\$469.20
13 line	1900 mm	300 mm	\$288.98
11 line	1525 mm	300 mm	\$237.97
<b>Goat Super Light High Tensile</b>			
18 line	1250 mm	150 mm	\$267.89
16 line	1025 mm	150 mm	\$234.42
12 line	1050 mm	150 mm	\$198.73
	<u>Height</u>	<u>Length</u>	<u>Price</u>
Pig	800 mm	100 m	\$199.01
		50 m	\$ 99.52
Sheep	900 mm	100 m	\$145.12
		50 m	\$ 72.56
Low Cost Permanent	800 mm	100 m	\$154.60

Prices Exclude GST

Utility - Electric	625 mm	100 m	\$145.36
	525 mm	100 m	\$123.16

### 2.16.5 Chain Link Fence

#### HURRICANE

Galvanised (prices per square metre)

<u>Mesh Size</u>	<u>Wire Diameter</u>		
	<u>2.00 mm</u>	<u>2.50 mm</u>	<u>3.15 mm</u>
37.5 mm	\$5.75	\$8.06	\$11.88
50.0 mm	\$4.51	\$6.08	\$ 8.54
75.0 mm	-	\$4.38	\$ 6.33
100.0 mm	-	\$3.20	\$ 4.54

### 2.16.6 Straining Equipment

#### HAYES

Chain Wire Strainer	\$ 66.18
General Purpose Strainer	\$123.12
Permanent Wire Strainer	\$ 2.41
Handlers Permanent Wire Strainer	\$ 4.99
Boundary Fence Strainer	\$ 84.83
Tension Indicator	\$ 13.10

#### GALLAGHER

Tightener, Permanent Wire	\$ 2.24
Handle, Permanent Wire	\$10.63
Rapid wire tightener tool	\$88.75

#### DONALDS

Chain Wirestrainer, complete with tension indicator	\$90.00
Tension Indicator, for use with chain wirestrainer	\$23.00
Spring Clip Sheaved Wirestrainer	\$2.40
Insulator Clip	\$2.15
In Line Wirestrainer	\$2.00
In Line wirestrainer Handle	\$75.00

### 2.16.7 Post and Standard Drivers

#### HAYES

Standard Drivers Tubular	50 mm	\$ 35.51
	65 mm	\$ 41.84
	100 mm	\$ 66.99
	150 mm	\$120.00
	200 mm	\$166.00

## DONALDS

### Post Driver and Accessories

#### Tractor operated Post Driver Mark IV

14' 180kg weight 2 belt drive	\$2420.00
14' 230kg weight 3 belt drive	\$2616.00
16' 230kg weight 3 belt drive	\$2832.00
Mark IV 14' top	\$ 56.00
Mark IV 14' bottom	\$ 35.30
Pilot Hole Driver      Complete with Lifter	\$ 77.00

### **2.16.8 Post and Standard Removers**

<u>DONALDS</u> "Muscle Mate" post puller	\$90.00
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<u>HAYES</u> Standard Lifter	\$74.96
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### **2.16.9 Wire Reels**

<u>DONALDS</u> Wire Dispenser	\$ 97.00
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<u>HAYES</u> Combination Wire Coiler and Reel	\$203.45
Wire Reel Standard	\$ 53.31
Deluxe	\$111.44
2 Coil Multiple Wire Reel	\$137.35
3 Coil Multiple Wire Reel	\$184.44
4 Coil Multiple Wire Reel	\$290.05

### **2.16.10 Post Hole Diggers**

#### GALLAGHER

#### Mate Post Hole Diggers

Powerhead, Gallagher/Mate 85, 85cc 3 HP	\$895.00
Powerhead, Gallagher/Mate 100, 100cc 3.5 HP	\$970.00

#### Auger (Length 782 mm)

Size	Single Blade	Double Blade
	<u>7500 Series</u>	<u>1700 Series</u>
50.8 mm	-	\$105.11
78.2 mm	-	\$124.06
101.8 mm	\$125.93	\$138.52
127 mm	\$131.78	\$144.95
152.4 mm	\$135.98	\$149.57
117.8 mm	\$144.85	\$159.33
203.2 mm	\$149.53	\$164.48
228.6 mm	\$156.54	\$172.19
254 mm	\$164.68	\$181.14

### **2.16.11 Tools**

#### HAYES

<u>Standard Hammer</u>	\$45.53
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Staple Pick		\$16.45
Post Rammer	- wooden handle	\$17.60
	- steel handle	\$25.34

### DONALDS

Crowbar/Rammer		\$53.00
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### 2.16.12 Gates

#### Wooden

MCALPINES (1987 prices as 1988 prices unavailable at time of printing)

Hurdles	1.8 m	\$19.80
	2.1 m	\$20.90
	2.4 m	\$22.00
Gates High Cattle	3.0 m	\$64.90
	3.6 m	\$69.30
	4.2 m	\$74.80
	3.0 m	\$63.80
Gates High Sheep	3.6 m	\$68.20
	4.2 m	\$73.70
	1.8 m	\$52.80
Sheep Yard	2.1 m	\$55.00
	2.4 m	\$57.20

#### Galvanised Steel

#### CYCLONE

	<u>Length (metres)</u>				
	<u>3.05</u>	<u>3.35</u>	<u>3.66</u>	<u>4.27</u>	<u>4.88</u>
Standard	\$ 87.24	\$91.83	-	-	-
Special -	-	\$110.41	\$134.85	-	-
Special Heavy	-	-	\$130.18	\$140.44	-
180 Barred	\$140.18	-	\$157.77	\$185.72	-
Stressmaster	-	-	\$130.25	\$147.78	\$182.94
Stressmaster heavy	-	-	\$134.45	\$154.74	\$206.46
Special pairs	-	-	-	\$148.57	\$164.36

#### Economy Farm Gates

3.66 m length	\$84.59
4.27 m length	\$90.33

#### Hurdles

2.4 m long x 900 mm high	\$58.16
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#### Deer Gates

3.05 m x 1900 mm	\$147.95
3.66 m x 1900 mm	\$168.93

4.27 m x 1900 mm

\$190.20

**HURRICANE**

All purpose, 1 m high, Galvanised Steel

		<u>Medium</u>	<u>Heavy</u>
<u>Standard</u>	2.5 m wide	\$94.13	-
	3.0 m	\$98.12	\$123.42
	3.5 m	\$103.74	\$129.69
	3.75m	\$108.21	\$137.11
<u>Cross Corner Braced</u>			
	3.0 m	\$109.90	\$138.76
	3.5 m	\$115.21	\$146.62
	3.75m	\$119.71	\$154.10
	4.0 m	\$125.48	\$162.06
	4.25m	\$129.57	\$169.68
	4.75m	\$136.65	-
<u>Deer Gates</u>			
	3.0 m		\$147.95
	3.75m		\$168.93
	4.25m		\$190.20

**HAYES**

Tip Swing Gate	\$108.85
Non Return Gate	\$103.00
Swing Around Gate	\$ 92.79
Lift and Swing	\$117.03
Drafting	\$111.63

**2.16.13 Gate Fittings**

Gate Fastenings

HAYES

Fork Chain fastener	for double gates	\$11.05
	for single gates	\$ 9.08
Adjustable fastener	150-200mm	\$13.66
Cattle gate chain		\$20.14
Hook and Eye Gate Fastener		\$ 5.78
Hitch Pin	19mm	\$ 6.50
	22mm	\$ 6.80
	25mm	\$ 7.19

**2.16.14 Cattle Stops**

HUMES

2300 mm x 1800 mm x 315 mm	\$419.23
2300 mm x 1200 mm x 315 mm	\$314.42

**Prices Exclude GST**

## 2.16.15 Electric Fence Energisers

### GALLAGHER

#### **Mains Powered**

Energiser BEV 3	\$331.25
Replacement Module BEV3	\$ 67.50
Energiser Mains/Battery	\$386.72
Replacement Module Mains/Battery	\$158.72
Energiser Super 60	\$452.60
Replacement Module Super 60	\$ 85.00
Energiser MPE2	\$231.25

#### **Battery Powered - Battery not included**

Energiser Super Battery Elephant	\$612.50
Replacement Module Super Battery Elephant	\$149.88
Energiser E8	\$218.75
Replacement Module E8	\$ 65.00
Energiser module E12	\$225.00
Replacement module E12	\$ 65.00
Energiser Mini Strip Grazer	\$ 99.68
Replacement Module Mini Strip Grazer	\$ 47.50

#### **Solar Powered - Battery not included**

Super Battery Solar Kit 30 Watt	\$1425.00
E12 Solar Kit 10 Watt	\$ 673.75

### DONAGHYS

#### **Mains Powered Operated**

Stafix Model 700 - Super 240V	\$649.00
Replacement Module for Model 700	\$128.00
Stafix Model 500 - High Power 240V	\$430.00
Replacement Module for 500	\$ 97.00

#### **Battery Powered**

Stafix Model 150 High Power - 12V external battery	\$495.00
Replacement Module for Model 150	\$ 91.80
Stafix Model 90 - Strip Controller - 9V int. Cells	\$104.00
Replacement Module for Model 90	\$49.00

## 2.16.16 Insulators

### GALLAGHER

Bobbin Type B	\$0.27
Wooden Post, Pinlock	\$0.27
Strain Type S (Black)	\$0.50
Offsets with Insulator	\$1.21-\$2.05

## 2.16.17 Electric Fence Wire, Cable and Netting

### GALLAGHER

Cable, Undergate 1.6 mm, 100 mm Double Insulated	\$ 36.25
50 mm Double Insulated	\$ 18.75
Wire, Leadout, aluminium, 3.15 mm, 1600 m	\$355.00
, coated steel, 2.5 mm, 1000 m	\$197.40
Polywire, 6 strand 500 m	\$ 32.85
Polywire, 6 strand 200 m	\$ 13.75
Polyrope, 25 m	\$ 16.25
Polytape, 5 strand, 200 m	\$ 25.00
Cable, Leadout, 2.5 mm, 2/50 m Double Insulated	\$ 72.50
2/100 m Double Insulated	\$165.00

## 2.16.18 Electric Fence Standards

### DONAGHYS

Double Foot Rod Standard 10 mm	\$2.30
Deer Standard 12 mm	\$5.75
Self-Insulated Electric Fence Standard	
Moulded footing grip	\$2.65
Spike footing	\$2.75
Pigtail Standard H Type	\$2.45

### GALLAGHERS

#### Fibreglass

Post 1200 x 10 mm (Orange)	\$2.35
Outtrigger, pointed 10 mm x 200 mm (Orange)	\$0.55
Outtrigger, pointed 10 mm x 300 mm (Yellow)	\$0.78
Post 1370 x 13 mm (White)	\$4.30
Quick Clip for 10 mm Post	\$0.16
Quick Clip for 13 mm Post	\$0.17
Pressure Plate (for 10 and 13 mm)	\$0.49
Cap. Driver	\$7.50
Driver and Pilot Holer for Posts	\$17.50

### AGRISALES (Wrightson Dalgety)

#### Fibreglass Posts

		Bundles	each
W108	10mm x 1.2m F/G Posts	50	\$2.38
W114	10mm x 2m F/G Deer Posts	50	\$3.97
W126	13mm x 1.2m F/F Posts	50	\$4.02
W132	13mm x 2m F/G Deer Posts	50	\$6.70

#### Fibreglass Droppers

W156	10mm x 840m F/G Dropper	50	\$1.68
W162	10mm x 1250m F/G Deer	50	\$2.51



<b>Fibreglass Outriggers</b>			
W251	10mm x 200m Pointed	50	\$0.52
W257	13mm x 200m Pointed	50	\$0.73
<b>Clips</b>			
W301	10mm Clip	250	\$0.16
W307	13mm Clip	250	\$0.16
W313	10mm Dropper Clip	100	\$0.12

### **2.16.19 Electric Fence Reels**

#### **DONAGHYS**

'Stafix' Self Insulated Reel			\$ 24.50
Reels (Self Insulating), 200m prewound livestrand			\$ 38.24
with 350m prewound livestrand			\$ 48.35
with 500m prewound livestrand			\$ 58.53
Three in one Reel prewound 3 x 200 6 wire live strand			\$ 98.00
Mounting Post (Self Insulating) 1-3 reels			\$ 13.75
Mounting Post extra length for deer,	takes 4 reels		\$ 16.00
	takes 5 reels		\$ 17.50
Power winder complete, 12 Volt battery drive			\$ 93.30
6 wire 'Hotstrand Super 6' 200m reel			\$ 13.75
	350m reel		\$ 23.84
	500m reel		\$ 33.84
Hottape 200 m reel			\$ 22.43
Heavy Duty Underground Cable 2.5mm 50 m coil			\$ 40.00
'Flexinet'	Sheep Netting		\$111.50
	Rabbit Netting		\$112.10
	Horse/Goat/Deer netting		\$124.00

#### **GALLAGHERS**

Reel Strip Grazing	- Small		\$ 25.00
	- Medium		\$ 32.75
Stand, Reel for deer fencing (1-4 reels)			\$ 24.38
Stand, Reel (1-3 reels)			\$ 20.00
Lead connectors	- Multi reels		\$ 8.75
	- Single reel		\$ 3.25

### **2.16.20 Electric Fencing Accessories**

#### **GALLAGERS**

<b>Testers:</b>			
Tester, Neon			\$ 27.50
Meter, Digital (D.V.M.)			\$ 97.50

Batteries:		
Battery,	Lattern	\$ 7.10
	Dry Cell	\$ 52.50
	9 Volt (DVM)	\$ 1.09
	Rechargeable	\$ 27.50
	Low loss	\$238.05

Monitors and Alarms:		
Live Lite (Gallagher)		\$ 27.50
Fence Voltage Alarm		\$281.25
Siren, Fence Voltage Alarm		\$51.25

Earthing Equipment		
Clamp, joint galvanised		\$ 0.53
Tie Down Screw-in		\$ 3.13
Handle, screw-in tie down		\$16.88
Stake, Earthing, Galvanised angle, 2m		\$21.88
Clamp, Earth, Galvanised		\$ 3.94
Cut out switch		\$ 7.50
Isolator switch		\$ 7.80
Gate breaks		\$ 4.50

### 2.16.21 Guide to Fencing Costs (1987/88) Standard Sheep/Cattle Fence for Flat to Rolling Country

Spacings: Posts, 4m apart  
 Droppers, 4 between each post  
 Strainer every 400 metres

#### 1. Fence design with 8 x 2.5mm wires plus 1 x 1.7mm wire (electric)

Materials Required for 400 metres:		
Posts 125mm x 1.8m 100 @ \$ 7.25		\$725.00
Battens 50 x 50mm x 1.2m 400 @ \$ 1.05		\$420.00
Strainers 150mm x 2.4m 2 @ \$15.00		\$ 30.00
Stays 90 x 2.7m 2 @ \$ 8.50		\$ 17.00
2.5mm H.T. wire 3200m @ \$0.072/m		\$230.40
Gate 3.5m		\$103.74
	per 400 metres	\$1526.14
	Cost per metre =	\$ 3.82

#### 2. Fence design with 7 x 2.5mm wires and 1 x 75mm barb.

Materials Required for 400 metres:		
Posts		\$725.00
Battens		\$420.00
Strainers		\$ 30.00

Stays		\$ 17.00
2.5m H.T. wire 2800m at \$0.072/m		\$201.60
2.5mm (75mm)Barb 400 m at \$0.255/m		\$102.00
Gate 3.5m		\$103.74
	per 400 metres	\$1599.34
	Cost per metre =	\$4.00

### Deer Fence - boundary fence for flat to rolling country

Spacings: Posts, every 5 metres  
Strainers, every 200 metres

#### 1. Materials Required for 400 metres

Posts 2.7m x 150mm	80 at \$17.00	\$1360.00
strainers 2.7m x 150mm	3 at \$28.32	\$ 84.96
stays 2.7m x 115mm	3 at \$10.56	\$ 31.68
2.5mm H.T. wire	1200m at \$0.072/m	\$ 86.40
150mm x 1900m netting 13 line	400m at \$4.062/m	\$1624.80
Gate 3.66 x 1900mm		\$ 168.93
Staples	400m at \$0.05/m	\$ 20.00
	per 400 metres	\$3376.77
	Cost per metre	\$ 8.44

#### 2. Internal Deer Fencing

##### Fence Design 1.

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 150mm	33 at \$17.00	\$561.00
Droppers 2m	100 at \$ 4.40	\$440.00
Plastic strain insulators	18 at \$ 0.50	\$ 9.00
Joint Clamps	6 at \$ 0.53	\$ 3.18
Cut-out switch	1 at \$ 7.50	\$ 7.50
Strainers	3 at \$28.32	\$ 84.96
Stays	3 at \$10.56	\$ 31.65
2.5mm H.T. wire (1 coil = 648m)	9.4 coils @ \$46.38	\$435.97
	cost per 1000 m	\$1573.26
	Cost per metre =	\$1.57

##### Fence Design 2.

Consists of 3 live wires above a cyclone 600m 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	33 at \$17.00	\$561.00
Droppers (1.52m insultimber)	100 at \$ 4.40	\$440.00
Plastic strain insulators	9 at \$ 0.50	\$ 4.50
Joint clamps	3 at \$ 0.53	\$ 1.59
Cut-out switch	1 at \$ 7.50	\$ 7.50
Strainer posts	3 at \$28.32	\$ 84.96
Stays	3 at \$10.56	\$ 31.68
2.5mm H.T. wire 4.7 coils	4.7 at \$46.38	\$ 17.98
Cyclone netting (600mm x 300 mm 7 line T/L)		
	\$139.92/100m	<u>\$1399.20</u>
	cost per 1000 m	<u>\$2748.41</u>

Cost per metre = \$2.75

## 2.17 FARM MACHINERY AND EQUIPMENT COSTS

### 2.17.1 Tractors

#### FORD

(1987 prices)

1210 4 WD	11.9 kW ( 16 HP)	\$15,400
1910 4 WD	23.8 kW ( 32 HP)	\$20,550
3910 2 WD	37.0 kW ( 50 HP)	\$23,268
3910 4 WD	37.0 kW ( 50 HP)	\$29,995
4110 2 WD	42.0 kW ( 57 HP)	\$27,295
4110 4 WD	42.0 kW ( 57 HP)	\$32,036
4610 2 WD	47.1 kW ( 64 HP) Cab	\$35,268
4610 4 WD	47.1 kW ( 64 HP) Cab	\$42,505
5610 2 WD	55.9 kW ( 76 HP)	\$33,109
5610 4 WD	55.9 kW ( 76 HP)	\$39,250
6610 2 WD	63.3 kW ( 86 HP) Cab	\$46,977
6610 4 WD	63.3 kW ( 86 HP) Cab	\$53,268
7910 2 WD	75.8 kW (103 HP) Cab	\$60,113
7910 4 WD	75.8 kW (103 HP) Cab	\$68,777
TW25 4 WD	121.0 kW (153 HP)	\$92,830
Roll Master Cab		\$ 5,000

#### CASE INTERNATIONAL

485	2WD T.A C/W R.O.P.S.	51 HP	\$27,500
485	4WD T.A C/W R.O.P.S.	51 HP	\$33,580
585	2WD Std C/W R.O.P.S.	62 HP	\$29,500
585	2WD T.A C/W R.O.P.S.	62 HP	\$30,565
585	4WD T.A C/W R.O.P.S.	62 HP	\$35,175
685	2WD T.A XL Cab	72 HP	\$41,265
685	4WD T.A XL Cab	72 HP	\$47,440
1394	2WD Powershift C/W R.O.P.S.	77 HP	\$34,440
1394	2WD Powershift Cab Aircon	77 HP	\$44,555
1394	4WD Powershift Cab Aircon	77 HP	\$49,680
1494	2WD Powershift Cab Aircon	85 HP	\$47,250
1494	4WD Powershift Cab Aircon	85 HP	\$53,424
856	2WD XL Cab	85 HP	\$46,935
856	4WD XI Cab	85 HP	\$53,110
1056	2WD C/W R.O.P.S.	108 HP	\$49,090
1056	2WD Cab Aircon	108 HP	\$59,590
1896	2WD Cab Powershift Aircon	122 HP	\$76,557
2096	2WD P/S Cab Air Con	143 HP	\$81,000
2294	4WD P/S Cab Air Con	160 HP	\$95,005
4694	2 Equal Wheel Powershift Cab Aircon	261 HP	\$157,000

## MASSEY FERGUSON

MF 240	8 speed, Powershift 36 kW (48 HP)	\$21,547
MF 360	2WD, 47 kw (63hp) 12 speed syncro	\$34,263
MF 174	2WD, 49 kw (66hp) syncromesh, orchard vinyard	\$35,965 \$34,965
MF 390	2WD 62 kw (83 hp), 12 speed syncro	\$33,731
MF 398	2WD 73 kw (97 hp), 12 speed, cab	\$48,975
MF 375	4WD 56 kw (75 hp), 12 speed, s/frame	\$35,035
MF 390	4WD 62 kw (83 hp), 12 speed, cab	\$51,077
MF 3070	4WD 66 kw (97 hp), autotronic, cab	\$76,322
MF 3090	2WD 86 kw (115 hp), autotronic, cab	\$75,675
MF 3080	4WD 78 kw (105 hp), autotronic, cab	\$79,571
MF 3090	4WD 85 kw (115 hp), autotronic, cab	\$84,911

## ZETOR

<u>Model</u>	<u>kW (HP)</u>	<u>2WD/4WD</u>	<u>Transmission</u>	<u>Other</u>	<u>Price</u>
5245	37 (50)	4WD	10F-2R	SF	\$19,650
6245	44 (60)	4WD	10F-2R	SF Cab	\$23,480 \$26,450
7245	51.5 (70)	4WD	10F-2R	SF	\$26,300
7245	51.5 (70)	4WD	10F-2R	Cab	\$29,630

## KUBOTA

B7100	HST DP		16 HP	\$10,765
L405	DT		40 HP	\$21,458
L4150	DT Mech. Shuttle transmission		50 HP	\$32,253
L4150	DT Hydraulic Shuttle		50 HP	\$33,819
M7950	DT 2WD		84 HP	\$35,180
M7950	4WD Factory Cab		84 HP	\$51,419
M4050	4WD		48 HP	\$21,974
M4950	2WD		56 HP	\$22,947
M4950	4WD		56 HP	\$28,730
M5950	2WD		63 HP	\$25,749
M5950	4WD		63 HP	\$32,371
M6950	2WD		75 HP	\$29,617
M6950	4WD		75 HP	\$35,645
M8950	4WD	- Non Cab	96 HP	\$43,079
		- Factory Cab		\$57,149

## JOHN DEERE

		<u>2WD</u>	<u>4WD</u>
<u>JD 950</u>	33 HP	\$14,589	\$16,899
JD 1050	38 HP	\$16,883	\$19,238
JD 1750	53 HP	\$27,478	\$32,739
JD 1850	59 HP	\$29,743	\$35,617
JD 2250(Cab)	66 HP	\$42,668	\$49,412
JD 2450(Cab)	74 HP	\$46,124	\$51,858

Prices Exclude GST

JD 2650(Cab)	82 HP	\$48,407	\$55,111
JD 2850(Cab)	90 HP	\$51,595	\$58,978
JD 3350(Cab)	106 HP	\$60,709	\$69,466

**SHIBAURA**

4540	4WD	45 HP	\$17,000
6340	4WD	63 HP	\$25,000

**2.17.2 Combine Harvesters**

**CLAAS**

(1985/86 Prices)

DOM 48S	12' Cutter Bar	80 HP Mech. Drive	\$130,000
DOM 68S	13' Cutter Bar	100 HP Mech. Drive	\$162,700
DOM 76	15' Cutter Bar	120 HP Mech. Drive	\$143,040
DOM 88s	15' Cutter Bar	120 HP Mech. Drive	\$203,600
DOM 96	17' Cutter Bar	150 HP Hyd. Drive	\$178,920
DOM 108SL	20' Cutter Bar	221 HP Hyd. Drive	\$298,000
DOM 115CS	20' Cutter Bar	250 HP Hyd. Drive	\$201,640

**CASE INTERNATIONAL**

1420	4.6 m pltfm (15')	Axial Flow	\$142,375
1460	5.2 m pltfm (17.5')	Axial Flow	\$172,685
1480	6.7 m pltfm (22.5')	Axial Flow	\$204,975

STB with air conditioning monitors, trailer, spare knife, sieves.

**JOHN DEERE**

JD 10554.2m platform	\$118,000
JD 1075	\$136,000

**NEW HOLLAND/CLAYSON**

8050 4.6 m	Mech. drive, Complete with cab	\$138,320
8070 6.0 m	Hydro. drv, cab, Merc. (175 HP)	\$177,970
TF44 6.0 m	Hydrostatic, 220 HP	\$237,600

**2.17.3 Forage Harvesters**

**GALLAGHER**

	1.05 m <u>Offset</u>	1.35 m <u>Offset</u>	1.35 m <u>Central</u>
<b>Multicut</b>			
Without chute	\$4,888	\$5,116	\$7,435
Wide mouth chute	-	-	\$8,053
Main chute & short top swivel	\$5,582	\$5,878	\$8,432

Side loading chute & long top swivel	-	-	\$8,671
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**Fine cut**

Offset built/ order	-	-	-
Without chute	\$4,482	\$4,803	\$6,970
Wide mouth chute	-	-	\$7,588
Main chute and top swivel	\$5,199	\$5,565	\$7,967
Side loading, chute and long top swivel	-	-	\$8,206

**Back loading chutes**

1.35m Central Wide Mouth Chute			\$618
1.35m Offset Wide Mouth Chute			\$595
1.35m Offest Main Chute			\$560
Short Top Swivel (33")			\$408
Side loading Chute 1.35m			\$796
Hay & Scrub Chute - pre wilt		- 1.35m	\$467
- scrub safety chute		- 1.35m	\$551

**Accessories**

Bolt on Roller Assembly 1.35m			\$865
Fine Cut Bar adjustment 1.35m			\$237

**JOHN DEERE**

3760	Forage Harvester		\$25,500
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**TAARUP**

1350	Forage Harvester		\$7,239
105	Forage Harvester		\$12,900
106	Forage Harvester		\$16,742
502	Forage Harvester		\$17,178
602	Forage Harvester with metal detector		\$29,883

**GILTRAP**

Electric remote control for turning chute on Gallagher Forage Harvester			\$480
Extra switch and cable			\$68

**TULLOCH MENGLE**

<b>Disc Roto Forage Harvester</b> - self propelled Model SF 300			\$141,220
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'Cut and Blow' FC 800 Precision Cut Forage Harvester			\$28,090
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## Precision Cut Forage Harvester

### JF Precision Cut Forage Harvester

(side mounted)

FC 80 model	\$14,025
Manual Vola-Flex cable	\$665
Hydraulic control	\$960
Electric control	\$1,165
FCT 1100 C/w elec controls - chute & spout	\$38,150
Two row maize attachment	\$8,705
Two drum mower attachment	\$6,200
Hydraulic Pickup Trailer Hitch	\$1,290

## Double Chop

JF FDT 150 5' Cutting width, 3 knives.

\$14,245

Optional: Pick up drawbar

\$1,290

## 2.17.4 Trucks (Inclusive of GST)

### DAIHATSU

#### Diesel Delta Trucks

##### Model

V57HS 1.5 tonne	2.8 Diesel	\$24,995
V58L Low Truck 2 tonne	2.8 Diesel	\$26,495
V57PWS Double Cab 1/2 tonne	2.8 Diesel	\$31,495
V76HU Wide Cab 4 tonne	3.4 Diesel	\$32,500
V76HU Standard Cab 3 1/2 tonne	3.4 Diesel	\$29,995

### FORD

Courier	2.0 XL Petrol c/c	\$21,870
	2.2 XL Diesel c/c	\$24,550
Falcon Utility	Manual	\$29,410
1.5 tonne		\$25,360
3.0 tonne		\$30,710
4.0 tonne		\$37,380
6.0 tonne	N series	\$57,860
8.0 tonne	N series 5/2 G/box	\$77,209
EHD	Twin Steer	\$185,900

### MAZDA

B1600 Cab and Chassis	\$19,995
B2000 Pickup	\$22,795
B2200 Diesel cab/chassis	\$22,995
B2000 Cab/chassis	\$20,795
B2200 Pickup	\$24,955
B2600 Cab/chassis P/steer 4x4	\$29,995
B2600 Pickup P/steer 4x4	\$31,995
T3500 2 Tonne cab/chassis	\$29,458
T3500 3.5 Tonne	\$32,750

## NISSAN

Navara Single Cab c/c	1 tonne 2.0L 5spd	\$21,090
Navara Kingcab c/c	3/4 tonne 2.4L 5spd	\$23,313
Navara 4x4 c/c	1 tonne 2.4L 5spd	\$29,538
Patrol SWB Hardtop		\$46,951
Patrol LWB c/c Diesel		\$34,949

## LAND ROVER (GST included)

110 4cyl C/Cab	2.5 litre	\$36,900
110 4cyl P/Up	2.5 litre	\$37,590
110 4cyl P/Up High Capacity	3.5 litre	\$38,000
110 V8 High Capacity P/Up	5spd	\$44,450
110 V8 Chassis Cab	5spd	\$41,900
110 V8 Hard Top	5spd	\$44,000
110 V8 County	5spd	\$61,500

## TOYOTA

### Four wheel drive

Hi-Lux 2.2	Cab/Chassis Petrol	\$29,995
2.4	Cab/Chassis Diesel	\$32,795
2.2	Utility Petrol	\$32,245
2.4	Utility Diesel	\$34,045
2.2	Double cab, Petrol	\$36,195
2.4	Double cab, Diesel	\$38,995

### Two wheel drive

Hi-Lux 1.6	Cab Chassis Petrol	\$18,995
2.0	Cab Chassis Petrol	\$20,495
2.4	Cab Chassis Diesel	\$23,295
1.6	Utility Petrol	\$20,995
2.0	Utility Petrol	\$22,745
2.4	Utility Diesel	\$25,545
2.0	Double Cab Petrol	\$26,495

Landcruiser SWB Petrol Hardtop	\$46,800
Landcruiser SWB Diesel Hardtop	\$52,600
Landcruiser LWB Petrol cab/chassis	\$46,800
Landcruiser Petrol Station wagon	\$71,000
Landcruiser Diesel Station Wagon	\$80,000

## SUZUKI

SK 410V	\$17,995
ST 90K	\$10,945
SJ 413P Cab & Chassis, 4X4	\$17,490
SJ 413 PSU Super Ute	\$19,690
SJ 413 VL Hardtop	\$21,995

## ISUZU

NKR 55E	2 tonne	\$25,240
NKR 55EW	1.75 tonne	\$31,205
NKR 57L	2.5 - 3 tonne	\$27,345
NPR 57LW	2.5 - 3 tonne	\$34,930
NPR 57L	3 tonne	\$30,785
NPR 59P	4 tonne	\$34,930

### **2.17.5 Farm Bikes**

#### HONDA

XR 200	2 Wheeler	\$4,399
CT 200	2 Wheeler	\$3,990
CT 125	2 Wheeler	\$3,330
CT 110	2 Wheeler	\$2,790
XL 185	2 Wheeler	\$3,096
TRX 350	4x4 Wheeler	\$7,986
TRX 300	4x4 Wheeler	\$7,337
TRX 300	4x2 Wheeler	\$6,732
TRX 250	4 Wheeler	\$6,633
TRX 250	3 Wheeler	\$5,445

#### SUZUKI

##### Farm:

TF 125 X		\$2,260
TF 185 X	Mudbug	\$2,887
DF 125 J	Mudbug	\$2,986
LT F250J	Quadrunner (4WD)	\$5,436
LT F4WDJ	Quadrunner	\$6,564

##### Dual Purpose:

TS 185 ERZ		\$2,487
DR 200 J		\$3,579
DR 250 SH		\$3,817
DR 600 RG	Dakar	\$6,369
DR 750 SJ		\$6,617

#### YAMAHA

AG 100J	2 Wheeler	\$2,794
AG 175J	2 Wheeler	\$3,245
AG 200L	2 Wheeler	\$3,993
YFM 255S	4 Wheeler	\$5,797
YFM 350ER	4 Wheeler	\$6,996
YFM 350FW	4WD	\$7,689
DT 175	2Wheeler	\$2,794
TT 250	2Wheeler	\$4,796
XT 250	2Wheeler	\$3,498

TT 350	2Wheeler	\$5,588
BW 200E	2Wheeler, Big Wheels	\$4,290

### HONDA

XR 600	4 Wheeler	\$6,435
XL 250	4 Wheeler	\$4,276
TLR 250	3 Wheeler	\$4,452
TLR 200	3 Wheeler	\$4,121
CT 185	2 Wheeler	\$3,499
CT 125	2 Wheeler	\$3,065
CT 110	2 Wheeler	\$2,699
XR 100	2 Wheeler	\$2,599
TRX 125	4 Wheeler	\$3,964
ATC 250	3 Wheeler	\$5,449
ATC 200	3 Wheeler	\$3,790
GT 200 E	2 Wheeler Auto Ag	\$3,999

### DONALDS

Deluxe farm bike trailer 6.5" wide wheels	\$651
Deluxe farm bike trailer 9.5" wide wheels	\$728
Deluxe farm bike trailer crate	\$163

## **2.17.6 Ploughs**

### DUNCAN

(1987 prices)

535 mounted	3 furrow c/w landwheel	\$3,400
	4 furrow c/w landwheel	\$3,990
562 Semi-trailed Plough	6 Furrow Rigid	\$10,006
	7 Furrow Rigid	\$12,153
	8 Furrow Rigid	\$13,530

### CLOUGH

2000 TRI-LINE Series	4 Furrow (In-furrow)	\$10,602
(Semi-Mounted)	5 Furrow (In-furrow)	\$11,971
	6 Furrow (In-furrow)	\$13,166
	7 Furrow (On-land)	\$17,218
	8 Furrow (On-land)	\$18,431
	9 Furrow (On-land)	\$20,144
1000 TRI-LINE Series	3 Furrow	\$4,279
(Utility Mounted)	4 Furrow	\$5,162
	5 Furrow	\$6,046

CLOUGH

960 3 Row Ridger	\$1,345
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**2.17.7 Chisel Ploughs and Subsoilers**CLOUGH

Goliath Chisel plough/cultivator	7 tine (2.7 m)	\$4,905
	9 tine (2.7 m)	\$5,544
	11 tine (3.8 m)	\$6,177
	13 tine (3.8 m)	\$6,662
	15 tine (4.3 m)	\$7,172
960 3 Row Ridger		\$1,345

HOWARD (Paraplow)

500 Series	2 leg c/w Standard legs and disc assemb.	\$5,398
	2 leg c/w Trash legs and disc assemblies	\$7,720
1100 Series	3 leg c/w Standard legs and disc assemb.	\$7,506
	4 leg c/w Standard legs and disc assemb.	\$8,987
100 Series	3 leg c/w Trash legs and disc assemblies	\$7,982
	4 leg c/w Trash legs and disc assemblies	\$9,556
1800 Series	6 leg c/w Standard legs and disc assemb.	\$18,475

AITCHISON

	<u>Type</u>	<u>Ex Wanganui</u>
Frame 1.17 m, 2 tool bars, 2 Subsoiler Tines		\$2,498
Frame 2.44 m, 2 tool bars,	4 Low Draft Tines	\$2,970
	5 Low Draft Tines	\$3,499
	4 Cushion Tines	\$3,057
	5 Cushion Tines	\$3,605
Frame 1.98 m, 3 tool bars	5 Low Draft Tines	\$3,729
	7 Low Draft Tines	\$4,740
	5 Cushion Tines	\$3,838
	7 Cushion Tines	\$4,937
Frame 3.05 m, 3 tool bars	9 Low Draft Tines	\$6,108
	11 Low Draft Tines	\$7,165
	9 Cushion Tines	\$6,304
	11 Cushion Tines	\$7,404
Attachments	Low Draft Tine	\$ 607
	Cushion Spring Tine	\$ 620
	Subsoil Tine	\$1056
	Depth Wheel (Pair)	\$ 685
	Subsoiler Wing Assembly	\$ 214

**2.17.8 Discs**REID AND GREY

2.7 m (9') Tandem	\$4,190
3.0 m (10') Tandem	\$4,420

## COSGROVE

Trailing Discs	- 32 Blade	\$7,855
	- 36 Blade	\$8,790

## DUNCAN

(1987 prices)

Standard Century Disc		
8' All Plain Blades		\$3,622
8' All Scalloped Blades		\$3,784
9' All Plain Blades		\$3,986
9' All Scalloped Blades		\$4,080
800 Mounted Disc		
7' All Plain Blades		\$4,022
7' All Scalloped Blades		\$4,209
8' All Plain Blades		\$4,192
8' All Plain Blades		\$4,319
9' All Plain Blades		\$4,279
9' All Scalloped Blades		\$4,437

### **2.17.9 Power Discs**

#### GALLAGHER

	<u>Width</u>	<u>Recommended Tractor kW (HP)</u>	
F400 (4 discs)	.99m	15-22 (20-30)	\$5,062
F500 (5 discs)	1.24m	19-26 (25-35)	\$5,366
F700 (7 discs) c/w Wghts	1.75m	22-44 (30-60)	\$6,450
F800 (8 discs) c/w Wghts	2.01m	37-60 (50-80)	\$6,660

### **2.17.10 Cultivators**

#### DUNCAN

##### 634 Rotacumbler

2.53m ( 8') 22 Tines		\$2,358
3.13m (12') 30 Tines		\$2,590
3.63m (14') 34 Tines		\$2,895
4.13m (16') 38 Tines		\$3,345

##### 635 Contura

4.25m 42 Tines		\$5,418
5.00m 50 Tines		\$5,643
5.60m 56 Tines		\$5,870
6.20m 62 Tines		\$6,321

## CLOUGH

### Standard Frame 925 Mini-Till Models.

	<u>With Crumbler</u>	<u>Less Crumbler</u>
1.6m 13 tine	\$1,456	\$ 984
2.1m 17 tine	\$1,603	\$1,105
2.6m 19 tine	\$1688	\$1,145
Helper Tines	extra	\$12.18

### 923 Wide Line Trailing Maxi-Till

5.5m 54 tine	\$12,012	\$9,813
7.7m 70 tine	\$13,152	\$10,832

### 920 Mounted Maxi-Till Standard Models

2.53m 22 tine	\$2,199	\$1,609
3.63m 34 tine	\$2,747	\$2,129

### 940 Agritiller Coil Tine Cultivators

2.06m 9 tine	\$2,748	\$1,959
2.96m 13 tine	\$3,422	\$2,570
3.86m 17 tine	\$4,068	\$3,197

### 930 Uni-Tiller

3 tine standard	\$ 440	
7 tine standard	\$ 715	
11 tine with tortion bar	\$1,210	

## AITCHISON

### Easyflow Cultivators

1.83m. 4 tool bars, 17 tines	\$1,261
With crumbler roller,	\$1,808
Roller kitset	\$ 653
3.05m. 4 tool bars, 29 tines	\$1,796
With crumbler roller	\$2,546
Roller kitset	\$ 905
4.26m.4 tool bars,43 tine (3 crumbler rollers fitted)	\$ 4,893

## GALLAGHER

### Ripper with Shakaerator

1.4m arable subsoiler with shakaerator and Driveshaft.	
Three long shanks with narrow tips.	\$3,732
1.4m pasture subsoiler complete with Shakaerator and Driveshaft. Two long shanks with narrow tips. Two coulters. Roller assembly(pair)	\$4,611
Frame complete with 3 pt linkage mountings	\$1,112
Shakaerator unit with Driveshaft and clutch	\$ 985
21" Long Shank with Narrow Tip	\$ 545
15" Short Shank with Wide Tip	\$ 460

**LELY**

<u>Roterra</u>	<u>Width</u>	<u>Max hp</u>	<u>Price</u>	
150/10		1.5m	70	\$5,990
200/20		2.0m	100	\$8,650
250/20		2.5m	100	\$9,650
300/20		3.0m	100	\$10,700
310/32		3.0m	150	\$12,800
360/44		3.5m	170	\$16,995
460/44		4.5m	170	\$18,623
614/52		6.0m	250	\$34,400

**2.17.11 Rotary Cultivators****GALLAGHER**

Rototiller	30 complete with skids, .75m	\$3,030
	40 complete with skids, 1.00m	\$3,095
Lightweight Rotodisc		
Central Mounted c/w skids	1.55m	\$ 5,076
Offset Mounted c/w skids	1.55m	\$ 5,093
Heavy Duty Rotodisc		
Central Mounted	1.50m	\$ 8,586
Central Mounted	2.05m	\$ 10,789
Central Mounted	2.30m	\$ 11,500

**HOWARD**

<u>HR30 Rotaharrow</u>	<u>2.55 m</u>	<u>3.05 m</u>
Trash Rotor c/w steel DCW	\$8,880	\$9,525

<u>HR8 Rotovator</u>	<u>HR8/080</u>	<u>HR8/1.15</u>	<u>HR8/1.25</u>
540 pto - speed blade rotor			
Transmission rating 26kw			
C/W depth control skids	\$ 2,766	\$ 3,670	\$ 3,908

<u>HR20 Rotovator</u>	<u>HR11/155</u>
540 pto Transmission rating 50kw Standard Rotovator	\$ 4,995

<u>HR30 Rotovator</u>	<u>HR30/155</u>	<u>HR30/180</u>	<u>HR30/205</u>	<u>HR30/230</u>
540 or 1000 pto				
Standard Rotovator				
c/w steel D.C.W.	\$7,635	\$8,000	\$8,800	\$9,428
crumble roller kit set	\$928	\$986	\$1,093	\$1,175



<u>HR40 Rotovator</u>	<u>HR40/230</u>	<u>HR40/255</u>	<u>HR40/305</u>
1000 pto			
Transmission rating 76kw			
Standard Rotovator c/w steel D.C.W.	\$13,433	\$13,883	\$14,926

### GALLAGHER

#### Heavy Duty Rotohoe

Central Mounted, Two Wheels	2.05 m		\$9,998
Central Mounted, Two Wheels	2.30 m		\$10,376

### KUHN

EL 25 105 cm cut(42")			\$ 3,670
EL 25 130 cm cut(52")			\$ 4,020
EL 80 230 cm cut(91")			\$11,035
EL 100 305 cm cut(120")			\$14,670

### VICON

#### Power Harrows

SE 300	3m width		\$ 7784
SE 450	4.5m width		\$ 11480

#### **2.17.12 Power Harrows**

Kuhn	HR 250 Power Harrow		\$10,070
Kuhn	HR 300 Power Harrow		\$11,833
Belrecolt HB3M	Power Harrows		\$ 8,590
Belrecolt HB250	Power Harrows		\$ 7,830

#### **2.17.13 Harrows (conventional):**

#### DUNCAN

(1985-86 prices)

Zig-Zag Harrows	1 leaf (less drawbar)	\$226
	4 leaf bar	\$211
Self-clearing Harrows	1 leaf (less drawbar)	\$175
	3 leaf bar only	\$228
	5 leaf bar only	\$330
Drill Covering Harrows	Single leaf (less bar)	\$119
	4 leaf bar and sliders	\$ 99
	3 leaves - bar and sliders	\$445
	4 leaves - bar and sliders	\$575
	5 leaves - bar and sliders	\$742
Finger Harrow Kits	15 Run	\$475
	19 Run	\$565
	23 Run	\$660

## 2.17.14 Rollers

### Cambridge Rollers

8'	24" Rings and 2 1/2" axle	\$2185
9'	24" Rings and 2 1/2" axle	\$2400
10'	24" Rings and 2 1/2" axle	\$2685

### Hydraulic Folding Cambridge Roller

#### Tulloch-Valderstad

Model HV6	6.2m working width, 3m transport, 3 sections, 105 Rings	\$13,695
HV10	10m working width, 3.1m trans., 5 sections, 175 Rings	\$25,745

### Field Roller

#### DUNCAN (1986 Prices)

2.7 m (9')	Standard Rings (630 mm/26")	\$3,137
3.0 m (10')	Standard Rings (630 mm/26")	\$3,352

### Crumbler Roller

FECO	PZ Crumbler 3000	\$6,990
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### Heavy Roller

#### HYDES

Water Ballast Heavy Roller	from \$6,000
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## 2.17.15 Drills and Seed Boxes

### DUNCAN

712 Agvance	15 Run	\$12,320
	17 Run	\$12,920
	19 Run	\$13,640
	23 Run	\$12,080

### 734 Multiseeder

15 Run	\$19,043
19 Run	\$23,073
23 Run	\$24,538

### 750 Tillseeder

11 Run	\$7,160
15 Run	\$8,100

### AITCHSON

#### Seedmatic 1000 Series Linkage Drill -Seed Only

Model 1012	12 row 1.8m	\$7,385
Model 1016	16 row 2.44m	\$7,697

<b>Seedmatic 1100 Series Linkage Drills - Seed and Fertiliser</b>		
Model 1112	12 row 1.8m	\$ 8,798
Model 1116	16 row 2.4m	\$ 9,552
Model 1120	20 row 3.0m	\$10,360

<b>Seedmatic 1100 "T" Trailed Series</b>		
Model 1112T	12 row 1.8m (6') model	\$11,078
Model 1116T	16 row 2.4m (8') model	\$11,832
Model 1120T	20 row 3.0m (10') model	\$12,640

<b>Seedmatic 1100 Coultter Trailed Drill</b>		
Model 1112CT	12 row 1.8m	\$13,679
Model 1116CT	16 row 2.4m	\$15,316
Model 1120CT	20 row 3.0m	\$17,065

<b>SeedKing C.B. Trailed Endwheel Disc</b>		
16 row, Sowing width 2.24m, width 2.99m total		\$11,671
20 row, Sowing width 2.8 m, width 3.55m total		\$13,173
24 row, Sowing width 3.6 m, width 4.11m total		\$15,248

### TULLOCH

#### Pneumatic Seed Drill

DL 3 m working width, 24 coultter, 3 point linkage		\$13,635
DL 4.5m working width, 32 coultter, row spacing 140mm		\$16,795

### VICON

LZ 301	(3m, 24 run, 125mm spacings)	\$12,069
LZ 451	(4.5m, 32 run, 140mm spacing)	\$14,892

## **2.17.16 Precision Drills**

### HOWARD

#### Stanhay Precision Drill

S981	Single unit	\$1,174
S981	3 Row	\$6,060
	4 Row	\$7,300
	5 Row	\$8,402
	6 Row	\$9,581

### NODET-GOUGIS

VS/4	4 Row planter Vegetable special	\$14,079
VS/6	6 Row planter Vegetable special	\$17,312

### 2.17.17 Transplanters

#### HOWARD

##### Super Prefer Transplanter

1 row machine	\$2,307
2 row machine	\$4,015

##### Tree planting auger

#### GALLAGHER

500mm (20") Stoney or Screw Tip	\$389.00
600mm (24") Stoney or Screw Tip	\$509.00
Auger extension complete with shearbolt 450mm (18")	\$ 60.00
Auger extension complete with shearbolt 600mm (24")	\$ 68.00

### 2.17.18 Fertiliser and Manure Spreaders and Toppers

#### KUHN

Fertiliser Spreader c/w Agitator	\$3,560
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#### AITCHISON INDUSTRIES

ex Wanganui

##### Oscillating Pipe-Mounted

SP400 Capacity 350 kg	\$2,334
SP500 Capacity 500 kg	\$2,604
SP600 Capacity 600 kg	\$2,790
SQ800P Capacity 920 kg	\$3,344
SQ1000P Capacity 1130 kg	\$3,470

##### Precision Spinner, Mounted

SN400 Capacity 350 kg	\$1,704
SN500 Capacity 500 kg	\$1,960
SN600 Capacity 600 kg	\$2,060
SQ 800N Capacity 920 kg	\$2,927
SQ1000N Capacity 1000 kg	\$3,053

Trailing Trolley	\$403
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#### VICON

PS 202	(200 litre/4cwt capacity)	\$1,999
PS 402	(400 litre/8cwt capacity)	\$2,605
PS1002	(1000 litre/20cwt capacity)	\$3,500

#### LELY

	<u>Capacity</u>	<u>Spreading width</u>	
1000 CL	600 lt/ 665kg	6m - 20m	\$4,180
2400 CBH	1200 lt/1330kg	6m - 28m	\$7,500
3000 CBH	1500 lt/1680kg	6m - 28m	\$7,793

Prices Exclude GST

2-108

### 2.17.19 Windrowers

#### HESSTON

Imported when ordered - price around \$75,000

### 2.17.20 Choppers and Shredders

#### TULLOCHS

##### Brady 722 Multi Crop Shredder

1800 mm - trailing, shredder plate discharging under	\$11,990
with short deflector hose behind	\$12,175
3600 mm - Trailing	\$18,745
4200 mm - Trailing	\$21,375

### 2.17.21 Mowers

#### KUHN

GMD 44 Multi-Disc Mower	- Manual	\$5,460
	- Manual Heavy Duty Disc	\$5,736
	- Hydraulic	\$5,796
	- Hydraulic Heavy Duty Disc	\$6,096
GMD 55 Multi-Disc Mower	- Hydraulic	\$6,780
GMD 66 Multi-Disc Mower	- Hydraulic	\$7,350
	- Hydraulic Heavy Duty Disc	\$7,759
FA367 Sicklebar Mower	- 5ft. 6in	\$2,935

#### GALLAGHER

Offset right 18kW (25hp), 1.2m	\$4,635
Offset right 22kW (30hp), 1.5m	\$4,890
Offset right 30kW (40hp), 1.85m	\$5,290
Offset right 33kW (45hp), 2.15m	\$5,372

#### TULLOCHS

JF CM 166 Drum Mower	5'6" cut	\$ 3,200
JF GMS 2800 Hydro-Flex Disc Mower/Conditioner		\$26,850
TM 4/2790, 9' Drum Mower, Swathing Attach.		\$15,825
Comet Mower, Twin Drum, 2m cut, V Belt Drive		\$ 4,135

#### CLAAS

WM30 Drum and Disc	2.45 m	\$11,475
WM165 2 Drum each 3 knives	1.65 m	\$6,340
With Conditioner		\$9,340
WM185 2 Drum each 3 knives	1.85 m	\$7,180
With Conditioner		\$10,175

#### FECO

##### PZ Haymowers

CM 165	Drum mower	\$ 5,290
CM 185	Drum mower	\$ 6,990

CM 185 HYD	Drum mower	\$ 8,990
CM 210	Drum mower	\$ 8,490
CM 211	Drum mower	\$ 8,990
CM 265A	Trailed Drum Mower	\$19,990
Falazet DM 185	Disc & Drum Mower	\$ 7,990
Falazet 230	Disc & Drum Mower	\$10,490

### TRIMAX

<u>Ezeemow Rear Mounted Flail Mowers - tractors upto 28Hp</u>		
1.34m (54")		\$ 2,940
1.50m (60")		\$ 3,050
<u>Mowcraft Rear Mounted Flail Mowers - tractors over 28Hp</u>		
1.54m (5 ft)		\$ 4,495
2.15m (7 ft)		\$ 4,815
2.56m (8 ft)		\$ 4,975

### **2.17.22 Mower Conditioners**

#### FECO

Falazet FZ 275C		\$20,990
Falazet FZ 275T		\$19,750
Falazet FZ 320C		\$23,990

#### Conditioners to fit Zweeeger mowers

TK 165 Trailing	(For CM 165)	\$ 990
TK 185 Hydraulic	(For 185 HYD)	\$ 2,990
TK 211 Trailing	(For CM 211)	\$ 3,350
TK 210 Trailing	(For CM 210 or DM 230)	\$ 2,999

Vicon OM165	Nylon Flail (165cm)	\$7,350
Vicon KM165	Crimper (165cm)	\$12,386

#### KUHN

FC 200	3 pt linkage	\$ 9,750
FC 250		\$17,750
FC 300	ML	\$19,995

### **2.17.23 Mower Toppers, Slashers**

#### FECO

<u>Front mounted mowers</u>		
CM 211F		\$10,250
CM 265F		\$10,990

#### GILTRAP

Model T500	1.5m cut 4 blade	\$ 2,670
3000	3.0m cut 2 rotor hinge frame to allow ground contact	\$6,740

**Prices Exclude GST** 2-110

GALLAGHERRotoslasher

Up to 22 kW (30 hp), General purpose	1.10 m	\$2,156
Up to 22 kW (30 hp), Twin roller	1.10 m	\$2,507

HOWARD

	090	120	150	180	210
LD Rotoslasher (2 blade)	\$1748	\$1852	\$2109		
MD Rotoslasher (4 blade)			\$2513	\$2756	
HD Rotoslasher (4 Blade)			\$3119	\$3315	
EHD Rotoslasher (2 Blade)			\$3825	\$4261	\$6030

**2.17.24 Hay Conditioners**KUHN

GA 300	Gyrotedder	\$3,965
GA 402	Gyrotedder	\$4,855
GRS 24	Gyrotedder	\$3,675
GRS 25	Gyrotedder	\$6,350
GF 452T	Gyrotedder	\$5,959

FECOTedders and Rakes

Haybob		\$4,950
Haybob 300		\$5,475
HS 360 Grasspa		\$6,350
DS 5000 Maxibob		\$11,590
HS 480 Tedder		\$ 3,950

TAEGE

Vee Rake	10 Reel	\$ 8,510
Vee Rake	12 Reel	\$ 9,430

TULLOCHS

JF Rotary Tedder, Mounted,	3.2 working width	\$ 5,680
	4.0 working width	\$ 6,660

TULLOCH - KVERNELAND

Standard Buckrake	1100mm	5.0 kg tines	\$ 1,760
	1400mm	5.7 kg tines	\$ 1,905
Heavy Duty industrial push off rakes			\$ 4,485

## 2.17.25 Conventional Balers

### NEW HOLLAND

NH 940	Rectangular Baler	\$ 19,250
NH 316	Rectangular Baler	\$ 22,047
NH 326	Rectangular Baler	\$ 24,803

### TULLOCHS

Jones 155 Pickup Baler, 56" Pickup	\$20,570
Jones 160 Pickup Baler, 60" Pickup	\$22,825

### WELGER

(1987 prices)

AP 53	\$22,990
AP 63 (including hydraulic drawbar)	\$23,990

## 2.17.26 Big Balers

### WELGER

(1987 prices)

RP 12 round, twine tie	\$29,650
RP 15 Round, net wrap	\$35,990
DELTA 5000 Giant Square	\$165,000

### CLAAS

Square Balers	Markant 55 Bale chamber 460 x 360	\$17,500
	Markant 65 Bale chamber 460 x 360	\$21,850

### JOHN DEERE

456 Square Baler	\$12,200
550 Round Baler	\$13,700

### FECO

Roball 1512 Round Baler	\$30,950
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### HESSTON

5580 Round baler	\$ 37,000
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### NEW HOLLAND

NH 848	Round Baler	\$ 25,851
NH 855	Round Baler	\$ 32,426
NH D1000	Big Square Baler	\$135,000

### VEMEER

504 HE	5 x 4	\$23,990
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## TULLOCHS GEHL

Round baler	1460 3'9" x 5' bale up to 1000lbs	\$29,995
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## TULLOCHS-KRONE

### Round balers

KR 125	1200 x 1200mm bale	\$30,595
KR 155	1500 x 1200mm bale	\$29,895

## CLAAS

Round Balers	Rollant 44, Bale chamber 1.2 m x 1.2 m	\$22,750
	Rollant 62, Bale chamber 1.6 m x 1.2 m	\$29,750
	Rollant 85, Bale chamber 1.8 m x 1.5 m	\$37,335

## **Baling Twine**

Heavy Sisal	\$163.90/Bale
Medium Sisal	\$148.00/Bale
Super Film Propylene	\$125.74/Bale
Binder Twine (Untreated Sisal Twine)	\$131.20/Bale
Big Round Super Film Baler Twine	\$158.17/Bale

## **2.17.27 Hay Handling Equipment**

### GARTH D. STEWART

Price

8 Bale Accumulator Kitset	\$2,650
8 Bale Accumulator Complete	\$2,650
10 Bale Accumulator Complete	P.O.A.
12 Bale Accumulator Complete	P.O.A.
8 Bale Impaler Bale Loader c/w ram	\$1,500
8 Bale Impaler c/w ram heavy duty	\$1,550
8 Bale Impaler clamp action 3 pt linkage cw ram	\$1,295

## **2.17.28 Silage Handling Equipment**

### TULLOCHS KRONE

Silawrap - baled silage wrapping system	\$14,350
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### GARTH D. STEWART

All Feedout Wagons have a side delivery and PTO drive conveyor

MK4 Feedout Wagon 4.5 cubic metres, single axle	\$ 9,995
MK6 Feedout Wagon 5.5 cubic metres, single axle	\$10,695
MK6T " " " " " , tandem axle	\$13,108
MK8T " " 6.5 " " " , tandem axle	\$13,658

### GILTRAP

#### Front-centre Feed wagons

Model 25 pto or hydraulic - 3.75 cu.m	\$ 8,950
40 Economy pto or hydraulic - 6 cu.m	\$ 8,950
40 Super hydraulic only - 6 cu.m	\$10,800

50 Standard pto only - 8 cu.m	\$10,270
50 Super hydraulic only - 8 cu.m	\$11,440
65 Standard pto only - 10 cu.- on tandems	\$14,230
65 Standard hydraulic only - 10 cu.- on tandems	\$14,760

### TAEGE

Silage Wagon	8 cubic metre	\$ 9,600
Silage Wagon	12 cubic metre	\$11,000

### GILTRAP/GALLAGHER COMBINATIONS

All feedwagon combinations have Fast Floor, 'Super' Hydraulic System, Remote Controls, Roof and Cover.

	Less Head Ram,Hoses & Roof	Gallagher Multicut 1.37m
Model 40HC self-feed - 8.75 cu.m as harvesting wagon.	\$11,400	\$21,100
Model 50HC self-feed -11.94 cu.m as harvesting wagon.	\$12,090	\$21,790
Model 65HC self-feed -15.5 cu.m as harvesting wagon.	\$15,550	\$25,250
Model 45XHC self-feed cross conveyor - 11 cu.m as harvesting wagon	\$14,830	\$24,530

### **2.17.29 Feed Mixers**

#### Farm Hand

817	Grinder/Mixer	\$18,100
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### **2.17.30 Chainsaws, Bushcutters, Hedge Trimmers**

Where chainsaws have variable bar lengths available, price quoted is for smallest bar.

#### STIHL

009 EQ	37 cc	4.0 kg	\$ 462
010 AVEQ	37 cc	4.3 kg	\$ 540
011 AVEQ	41 cc	4.4 kg	\$ 583
011 AVTEQ	41 cc	4.3 kg	\$ 599
024 AVSEQ	44 cc	4.6 kg	\$ 849
028 AVSEQ	51.5 cc	5.6 kg	\$ 949
034 AVEQ	56.4 cc	5.3 kg	\$ 979
038 AVSEQ	67 cc	6.6 kg	\$1,049
038 AVMEQ	72 cc	6.6 kg	\$1,149
051 AVEQ	89 cc	10.1 kg	\$1,380

Prices Exclude GST

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070 AV	106 cc	11.8 kg	\$1,780
084 AVEQ	122 cc	10.5 kg	\$1,730
090 AV	137 cc	12.6 kg	\$1,999

### HUSQVARNA

40	40 cc	13"-18"	\$ 599
44	44 cc	13"-18"	\$ 740
50	48.7 cc	13"-18"	\$ 770
61	61.5 cc	13"-22"	\$ 940
154 SE/SG	54.2 cc	13"-18"	\$ 890
254	54.2 cc	13"-18"	\$ 930
181 SE/SG	81.0 cc	16"-22"	\$1,190
238 SE/SG	38 cc	11"-15"	\$ 830
266 SE/SG	66.7 cc	13"-26"	\$1,050
268	68.0 cc	18"-22"	\$1,140
298	99.0 cc	18"-30"	\$1,290
2100 CD	99.0 cc	18"-28"	\$1,340

### AGRISALES (Komatsu and Zenoah)

Chainsaws		<u>Bar Length</u>	<u>GST INCL.</u>
G320AV	31.7 cc	14"	\$ 555
G380AV	37.5 cc	16"	\$ 595
G405AV	39.4 cc	18"	\$ 702
G560AV	52.3 cc	18"	\$ 895
G620AV	62.0 cc	20"	\$ 949

### Brushcutters/Trimmers

BC174E	17.2 cc	c/w Auto Nylon cord Head/Grass Blade	\$ 411
BC245E	25.4 cc	c/w Auto Nylon cord Head/8 Tooth Eddy Blade	\$ 444
BK340FT	33.6 cc	Knapsack Brushcutter c/w 8 Tooth Eddy Blade	\$ 625
BC430DWM	41.5 cc	c/w 1x8 Tooth Eddy Blade and Shoulder Harness	\$889
Hedgetrimmer HT230A	22.5 cc	With 750mm Blades	\$629

### PARTNER (Inclusive of GST)

Model			
400	40 cc	13"-18"	\$558
500	49 cc	13"-18"	\$708
650	65 cc	15"-24"	\$808
5000	49 cc	13"-18"	\$858
7000	70 cc	15"-24"	\$908
350	34 cc	12"-16"	\$408

1400 EL	1400 watts	13"-15"	\$308
440B	44 cc	Brushcutter	\$900
250B	24 cc	Brushcutter	\$708

### 2.17.31 Portable Generators and Welders

#### LINCOLN ELECTRIC

Selfwelder 140 I.C.			\$ 649
AC225S (240 volt)			\$ 889
AC225S (415 volt)			\$ 986
Tractapac (basic)			\$1,584
Trailer for Tractapac			\$1,281
Weldanpower 175 Petrol			\$2,972
Weldanpower 175 Diesel (electric start)			\$5,029
Weldanpower 225 Petrol			\$5,204
Weldanpower 225 Diesel			\$7,036
Dis-gen 6.5 KVA (Basic)			\$11,615

#### HOWARD

#### Multiwork Welder/Generator

Multiwork B/130 c/w welding kit

2 kw Generator at 220v A.C. 130AMP D.C. welder. \$2,201

### 2.17.32 Spray Equipment

#### **Tanks and Sprayers**

F.M. WINSTONE LTD (1987 price list - new prices available February 1988)

100 l Sprayer	- No Pump	\$ 618
100 l Sprayer	- C/W model 215 petrol	\$1,585
100 l Sprayer	- C/W model 215 electric	\$1,515

Econo Sprayer 500 litre, 3 pt linkage, \$ 770

Sprayers Pasture Pak 525 litre c/w Mesoliti AZ 90 pump	\$3,383
700 mm fan and AZ 90 pump	\$5,446
800 mm fan and AZ 90 pump	\$5,986

#### **Spray Pumps**

F.M. WINSTONE (1987 prices)

Hypro N6400 39 litre/minute (P.T.O.) complete	\$ 273
Centrifugal 290 litres/minute (P.T.O.)	\$ 590

Flojet electric pumps

model 25062/2 12.5 litres/minute	\$ 238
2000/650	\$ 266

**Prices Exclude GST**

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Comet MP/20	20 litres/minute (complete)	\$ 506
AZ30	30 litres/minute	\$1.760
AZ90	102 litres/minute	\$1.385
AZ120	140 litres/minute	\$1.850
P48	51.7 litres/minute (incl. petrol eng.)	\$2.228
P68	74 litres/minute (P.T.O.)	\$ 865
BP60/20	64.2 litres/minute (P.T.O.)	\$ 795
BP105/20	200 litres/minute	\$2.925

#### HAWK HIGH PRESSURE PUMPS

H 500	(3000psi) 23 l/min	\$950
HC500	(3000psi) 17 l/min	\$820

#### **Spray Booms**

##### F.M. WINSTONE (1987 prices)

3m straight boom, 9 Prec. nozzles, 3m 13 mm hose	\$ 180
6m Artic. boom, 15 Prec. nozzles, 6m 13 mm hose	\$ 699
10m Artic. boom, 25 Prec. nozzles, 13 mm cnetg hose	\$1.098
12m Artic. boom, 2 series nozzle system	\$2.500

#### **Hose Reels**

##### F.M. WINSTONE (1987 prices)

Holds 100 m of 13 mm hose or 110 m of 10 mm hose	\$345
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#### **Hoses**

##### F.M. WINSTONE (1987 prices)

Kuraray hose	10 mm, 4000 kPa	\$ 4.60/m
Kuraray hose	13 mm, 4000 kPa	\$ 6.75/m
Suction hose	19 mm, 2000 kPa (rubber)	\$17.00/m
Suction hose	25 mm, 1300 kPa (rubber)	\$19.00/m
Bypass hose	13 mm, 680 kPa (plastic)	\$ 2.75/m
Bypass hose	19 mm, 350 kPa (plastic)	\$ 4.35/m
Suction hose	25 mm, 680 kPa (plastic)	\$ 8.60/m
Suction hose	19 mm, 1500 kPa (plastic)	\$ 8.40/m
Suction hose	25 mm, 975 kPa (heliflex)	\$16.50/m
Suction hose	38 mm, 725 kPa (heliflex)	\$25.50/m

## **Spray Guns**

F.M. WINSTONE (1987 prices)

200 litre spray pistol	\$ 79
Spray Gun Art 25	\$125
Maxi Gun	\$150
Mini Gun	\$ 95
Lancer Gun	\$118

## **Waterblasters**

AG-EQUIPMENT SPECIALISTS

Hurricane 3000	Complete, tractor driven, 200litre	\$2,275
Hurricane 5000	Complete, tractor driven, 500litre	\$2,690
Tornado HC45	Complete, 11 hp Honda Petrol Engine	\$3,800
Wet Sandblast Attachment		\$245

## **Control Units**

F.M. WINSTONE (1987 prices)

MK V Unit	\$ 85
Remote3way outlet (248)	\$130
B.P. Series 4 outlet	\$175
Winstone Select	\$195

## **Pressure Gauges**

Range from 0-1000 kPa to 0-6000 kPa entry	\$27.00
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## **Strainers**

Footstrainer 19 mm	\$10.50
Line Filter - Fine, Coarse and Medium	\$34.00

## **Nozzles and Tips**

F.M. WINSTONE (1987 prices)

Spray tip (Gun)	\$ 1.00
Lurmark tips - 110 deg., 80 deg., all sizes	\$ 2.00
Lurmark and Delavan brass off (off centre)	\$ 6.00

## **Measuring Jugs**

1.5 litre Clear	\$ 7.00
Maxi Measure Jug	\$16.50

## **Knapsacks**

F.M. WINSTONES (1987 prices)

<u>K S15 hand operated</u>		\$185
Motorised	Allspray	\$499
	Trispray	\$610

## **2.17.33 Windmills**

JOLLY WINDMILL CO.

Windmill and pole, pump, footvalve, filter.

Diameter(m)	Price	Bore(mm)	Price
1.8	\$1,075	40 Household	\$445
2.4	\$2,550	50 High Pressure	\$675
3.0	\$3,950	65 High Pressure	\$865

## **2.17.34 Tractor Trays**

GILTRAPS

	Tray Only	Complete
1.980 m x 1.220 m (6ft 6in x 4ft)	\$674	\$820
2.130 m x 1.370 m (7ft x 4ft 6in)	\$714	\$860

## **2.17.35 Trailers**

GILTRAPS

1.5 t trailer 2.75 x 1.83 deck 1.5 cu.m	\$3,650
2 t tip trailer 2.75 x 1.83 deck 2 cu.m	\$4,000
3 t tip trailer 2.75 x 2.3 deck, 2.5 cu.m	\$4,560
5 tonne tip trailer 3.65 x 2.3 deck, 3.5 cubic metres	\$5,680
5 tonne tip trailer - on tandems	\$7,370

## **Bike Trailers**

1.5 m x 1.2 m	\$485
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DONALDS

Farm Bike Trailer 240mm wheels	\$913
Farm Bike Trailer crate	\$203

## **Crates**

1.8 m x 1.2 m	\$270
2.5 m x 1.2 m	\$290

## **2.17.36 Safety Equipment**

WORMALD

### **Spraying Gear:**

Chemical spray suit (polyaminated, elastic cuff, with hood)	\$64.42
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Crop spraying helmet	
Dust master (tyvek mask) flexible hose,filter motor unit	\$295-\$360
AH50 Airstream Helmet (Racool product) Complete respiratory protection	\$920
Boots Safemate PVC oil resistant, steel cap	\$46
Gloves	\$8.33

### **Welding Protection:**

Helmets WH300 lift up escutcheon	\$41.05
Goggles W6LV (gas welding)	\$23.96
Face shields BF2/8 Mark 2	\$33.90

### **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	\$69.50
2.5kg	\$162.00
4.0kg	\$258.50

BCF range (B and C classification)

1kg to 5.45kg	\$103 to \$350
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### **General:**

Safety Helmet (H146)	\$25.47
G1 Goggles	\$6.35 to \$9.10
Safety spectacles 4C coating antifog 9180 replaceable lens	\$14.36
Earmuffs Grade 4 104-109 decibels	\$28.95
Earplugs purafit 38c ea (in boxes of 200)	\$16.95
Antiexplosive containers	
Explosafe for liquids (petrol and diesel)	
4.5 litre	\$50.42
11.24 litre	\$78.23
22.50 litre	\$120.62
Wet weather gear complete parka and leggings	\$47.00



## 2.18 MICRO-COMPUTERS

### **2.18.1 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.

### **2.18.2 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?

### **2.18.3 General Guidelines**

One of the most important criteria is the available memory after loading the operating system: -

1. Require at least 64K RAM (random access memory) in an 8 bit machine or 128K for a 16 bit 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 \$2,000 to \$10,000.

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:
  - Database packages
  - Word processing
  - Spread sheet
  - Financial Recording system
  - Budgeting

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.

#### 2.18.4 Hardware Prices

A very wide range of hardware is available. eg CP/M + MSDOS there are approximately 200 suitable computers.

As an example the following models are priced:

<u>Computers (Includes GST)</u>	<u>Price</u>
IBM 256k	\$ 5000
Sanyo Executive 256k	\$ 3492
Mac XT (IBM Compatible) 640k	\$ 1900

#### 2.18.5 Software Prices

##### KELLOGG FARM MANAGEMENT UNIT

Financial Recording System (MSDOS + CPM)	\$ 870
- GST Module	\$ 190

Financial Budgeting	\$ 490
Livestock Recording System	\$ 860
- Electronic Data Interface	\$ 210
Production Recording System	\$ 490
Gross Margins	\$180-\$ 240
Dairy Analysis Management Scheme	\$ 260
Breakeven	\$ 100
Investment Analysis	\$ 50

AGRICULTURAL COMPUTER SERVICES LTD. (1987 Prices as 1988 prices unavailable at time of printing)

(Apple)	
Deerfile	\$1500
Stud Manager	\$1500
Cashbook	\$ 500
Stock Reconciliation	\$ 275

### 2.18.6 The Kellogg Farm Management Unit

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 College  
Canterbury

## 2.19 BUILDINGS

### 2.19.1 Dwellings

New cost varies considerably but is approximately \$800 per square metre (\$74 per square foot) for an average farm homestead.

#### Cottages

#### PROFILE BUILDINGS LTD

**Note:** Prices are inclusive of GST

		<u>Basic Price</u>		<u>Standard Plumbing</u>	<u>Total</u>
1 Bedroom	Option 1	\$15764.20	)		\$21797.70
	Option 2	\$21173.90	)	\$6033.50	\$27207.40
	Option 3	\$26270.80	)		\$32304.30
2 Bedroom	Option 1	\$20257.60	)		\$26204.20
	Option 2	\$27657.30	)	\$5946.60	\$33603.90
	Option 3	\$33600.60	)		\$39547.20
3 Bedroom	Option 1	\$23843.60	)		\$29878.20
	Option 2	\$33599.50	)	\$6034.60	\$39634.10
	Option 3	\$40917.80	)		\$46951.10

#### **Note:**

Option 1 provides a wooden floor and shell (including exterior framing, roof, aluminium joinery, exterior cladding).

Option 2 provides a wooden floor, shell (including exterior framing, roof, aluminium joinery, exterior cladding), internal partitioning, lining insulation and doors.

Option 3 provides a wooden floor, shell (including exterior framing, roof, aluminium joinery, exterior cladding), internal partitioning, lining insulation and doors, gib stopping electrical, painting/decoration.

#### FRAEMOHS INDUSTRIES

Interlocking solid timber homes.

<u>Model</u>	<u>Bedroom</u>	<u>Area</u>	<u>Kitset 3</u>	<u>Kitset 1</u>	<u>Erected</u>
		Square metres			
201	2	52	\$ 30950	\$ 36170	\$ 53610
204	2	74	\$ 42750	\$ 49650	\$ 71340
205	2	89	\$ 53300	\$ 60100	\$ 83280
211	2	97	\$ 58980	\$ 66590	\$ 91550
303	3	105	\$ 57910	\$ 65210	\$ 95020
301	3	132	\$ 64660	\$ 72520	\$104530
314	3	141	\$ 90650	\$105130	\$139840

404	4	164	\$ 89370	\$ 99250	\$135950
401	4	170	\$ 86310	\$ 97100	\$133910

**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.

**2.19.2 Garages**

PROFILE BUILDINGS LTD

**Note:** Prices are GST inclusive, and allow for coloursteel pre-painted exterior, doors, windows, tilt-a-door, all framing and construction. Concrete floors based on clear, level, accessible sites within a radius of 24 km from the Christchurch Post Office. Outside of this radius a small travelling charge would be made.

6.0 m x 3.6 m Single Garage	\$220/m <sup>2</sup>
6.0 m x 6.0 m Double Garage	\$176/m <sup>2</sup>
9.0 m x 6.0 m Double Garage Workshop	\$139/m <sup>2</sup>

**2.19.3 Sleepouts**

PROFILE BUILDINGS LTD (1987 prices)

3.0 m x 3.0 m (10 x 10)	\$4753.00
3.0 m x 3.6 m (10 x 12)	\$5064.00
3.6 m x 3.6 m (12 x 12)	\$5380.00
4.2 m x 3.0 m (14 x 10)	\$5380.00
4.2 m x 3.6 m (20 x 12) - 2 Bedroom	\$8830.00

**2.19.4 Woolshed/Covered Yards**

Prices vary considerably depending on what individual farmer requires. The following prices must be taken only as a guide.

## Woolsheds:

### ECONOTEK

<u>No. of Stands</u>	<u>Cost/m</u>	<u>Average cost/m</u>
1 - 2	\$275-\$330	\$305
3 - 4	\$230-\$260	\$245
5 - 6	\$220-\$240	\$230

Also Grating beneath wool room - \$65/m<sup>2</sup>

Total cost of new woolshed (excluding contents):

<u>No of Stands</u>	<u>1-2</u>	<u>3-4</u>	<u>5-6</u>	<u>8</u>
<u>Size (metre)</u>	9.0 x 7.0	18.0 x 8.3	18.0 x 13.5	22.5 x 18
<u>Area (metre<sup>2</sup>)</u>	63	167.4	243	405
<u>Nightpen Grating</u>	4.5 x 7.0	9.0 x 9.3	9.0 x 13.5	9.0 x 18
<u>Basic Shed</u>	\$20800	\$43500	\$55800	\$95700
<u>Nightpen Grating</u>	2000	5500	8000	10500
<u>Smoko Room</u>	850	1800	3700	5400
<u>Cartage</u>	1100	1700	2100	3100
<u>Electrical</u>	900	1400	1900	3000
<u>Plumbing</u>	700	900	1100	1400
<u>Intrnl Painting</u>	700	1400	1600	1900
	<u>\$27050</u>	<u>56200</u>	<u>\$74200</u>	<u>\$121000</u>

## **Covered Yards**

Vary from \$70 to \$103/m<sup>2</sup> (excluding cartage, plumbing).

### **2.19.5 Sheep Yards**

Vary markedly - guide \$6500 - \$12000

### **2.19.6 Cattle Yards**

Building costs: 17m x 13.3m approximately \$7,500  
Includes portable ramp

### **2.19.7 Deer complex building costs:**

Includes pen \$7,500 - \$15,000

### **2.19.8 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-LAVEL (1987 prices)

ROTARY DAIRIES

Ardco - Milking systems from Alfa-Lavel (without platform)

	<b>HP102</b>	<b>EP100</b>
	\$	\$
16 Unit	14 190	18 304
20 Unit	16 005	20 625
24 Unit	18 271	23 661
28 Unit	20 383	26 268
32 Unit	31 372	35 002
36 Unit	33 561	37 534
40 Unit	35 684	39 985
48 Unit	40 183	45 639
Turnstyle		
Conventional platform milking systems	<b>HP102</b>	<b>EP100</b>
16 Unit	15 488	19 569
20 Unit	17 556	22 132
24 Unit	19 932	25 278
28 Unit	22 649	28 633
32 Unit	24 981	31 460
36 Unit	27 126	34 111
40 Unit	29 480	36 971
Open centre milking systems	<b>HP102</b>	<b>EP100</b>
28 Unit	24 904	30 734
32 Unit	26 862	33 198
36 Unit	29 106	35 948
40 Unit	34 738	41 524
50 Unit	40 370	48 543
60 Unit	46 420	55 825

**2.19.9 Haybarns/Implement Sheds**

BROWNBUILT

Implement Shed

Wide span lean-to

single bay	9.8m x 7.7m x 3.3m	\$ 7148 (kitset)
3 bay	29.5m x 7.7m x 3.3m	\$17542 (kitset)

Multi-purpose Gable

3 bay	14.52m x 9.3m x 3.52m (tot. encl.)	\$12676 (kitset)
3 bay	14.52m x 11.4m x 4.32m (tot. encl.)	\$15989 (kitset)
15 m clear span steel building		
18.0m x 15.0m x 5.0m		\$31910 (kitset)



**ECONOTEK:**

**Hay Shed**

Frame and roof only \$60 - \$105/m<sup>2</sup>

Enclosed on three sides \$135/m<sup>2</sup>

**Implement Shed**

Frame, roof and enclosed on 3 sides \$135 - \$170/m<sup>2</sup>

Complete with doors \$165 - \$210/m<sup>2</sup>

**2.19.10 Packing Sheds**

**ECONOTEK**

Basic shed - roof, frame, walls, door,  
concrete floor \$180 - \$225/m<sup>2</sup>

Additional - mezzanine floors, ablution  
and smoko area \$ 75 - \$105/m<sup>2</sup>

**2.19.11 Cool Stores**

**ECONOTEK**

Coolstores including pre-cooler area vary as follows:

\$426.00 m<sup>2</sup> for 100 000 trays

\$390.00 m<sup>2</sup> for 150 000 trays

\$230.00 m<sup>2</sup> for 200 000 trays

Prices assume a 125mm reinforced concrete floor, internal steel support frame and all weather EPS panel to roof and walls. Eaves height 4.8m for two pallet high stacking. An extra \$60 m<sup>2</sup> increases the eaves height to 7.2m allowing three tier racking system.

**2.19.12 Killing Sheds**

**HUMES (1987 price)**

Circular - 2.5m I.D. \$2,205

**MCKENDRYS (1987 prices)**

<u>Square</u>	<u>Diameter</u>	<u>Height</u>	<u>Price</u>	<u>G.S.T.</u>	<u>Total</u>
	8 ft. (2.44m)	8 ft. (2.44m)	1550.00	155.00	1705.00
<u>Round</u>					
Large	9' 3" (2.82m)	8' 6" (2.58m)	1530.00	153.00	1683.00
Medium	8' 6" (2.54m)	8' 6" (2.54m)	1400.00	140.00	1540.00
Small	6' (1.83m)	6' (1.83m)	1200.00	120.00	1320.00
Special Heavy Shelf			120.00	12.00	132.00

### 2.19.13 Grain Silos

DAN COSGROVE LTD (1987 prices)

Model	Diam m	Ovrall Hght	Bushel Capcty	Metric Tonnes				Retail Price incl GST
				Wheat	Barley	Oats	Maize	
CB 62	1.8	4.24	152	4.1	3.4	2.7	3.8	\$1,961.00
CB 63	1.8	5.06	211	5.7	4.76	3.8	5.4	\$2,203.00
CB 91	2.74	4.17	256	6.96	5.78	4.6	6.5	\$2,469.00
CB 92	2.74	4.98	392	10.6	8.86	7.05	9.95	\$2,578.00
CB 93	2.74	5.8	528	14.36	11.93	9.5	13.41	\$3,013.00
CB 94	2.74	6.6	664	18.06	15.00	11.93	16.86	\$3,195.00

Note: Price includes FREE DELIVERY 80 kilometres FROM TIMARU ONLY. \$2.20 per kilometre thereafter.

No Ladder included in prices quoted for the above models

CB 121	3.66	3.31	452	13	10	8	12	\$3,734.00
CB 122	3.66	4.12	695	20	15	13	18	\$3,925.00
CB 123	3.66	4.93	938	27	21	17	24	\$4,257.00
CB 124	3.66	5.74	1191	33	27	22	30	\$4,740.00
CB 125	3.66	6.55	1424	40	32	26	37	\$4,999.00
CB 126	3.66	7.36	1667	46	38	31	43	\$5,373.00

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.

### 2.19.14 Silage Pits

MCKENDRYS (1987 prices)

\$150.00 per slab

\$ 95.00 per column

## 2.20 REPAIRS AND MAINTENANCE

### **2.20.1 Farm Structures**

The best way to estimate the likely expenditure on repairs and maintenance for all plant, buildings, fences, sheep and cattle yards, tracks and culverts is:

1. The close scrutiny of the farm accounts;
2. Questioning the farmer directly, on likely expenditure programme;
3. Farm inspection.

If the information is not available through such sources, the following rates may be used as an approximate guide. It should be borne in mind that expenditure on repairs and maintenance is often strongly dependent upon the income for that particular year.

	<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%

### **2.20.2 Motorised Plant**

The best way to estimate likely expenditure on repairs and maintenance for all motorised plant is to obtain a figure direct from the farmer. However, if this is not possible then the following can be used as a rough guide.

Cars and light trucks	allow 30-40 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 2.21.7)
Mobile plant	allow 5% of initial value per annum.

## 2.21 VEHICLE EXPENSES

### 2.21.1 Vehicle Registration

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 (see Section 2.21.2)

		<u>Total</u>
Farmers Cars	under 1300 cc	\$168.50
	1300 - 2600 cc	\$206.50
	2600 - 4000 cc	\$233.50
	Over 4000 cc	\$326.50
Combine Harvesters		\$ 94.50
Trucks		
Tare Weight	up to 2000 kg	\$233.50
	over 2000 kg	\$326.50
Farm Motorcycles		
	under 60 cc	\$ 83.50
	over 61 cc	\$177.20
Trailers	Light	\$ 77.20
	Heavy	\$ 96.20
Tractors	wheeled	\$ 84.95

Note: Includes 12 months licence fee, registration plates and labels.

### 2.21.2 Annual Licencing Fees

		<u>Total</u>
Combine Harvesters		\$72.50
Farmers Cars	Under 1300 cc	\$82.50
	1300-2600 cc	\$82.50
	2600-4000 cc	\$82.50
	Over 4000 cc	\$82.50
Farmers Motorbikes		
	Under 60 cc	\$53.50
	61 cc and over	\$128.20
Farmers Trucks		
Tare Weight	up to 2000 kg	\$82.50
	over 2000 kg	\$82.50
Tractors exempt Class B		\$72.50

Prices Exclude GST

Trailers	Light	\$28.20
no C.O.F. Fee	Heavy	\$47.20

Note: 6 month licences are available and are usually approximately 50% of the 12 month fees.

### 2.21.3 Road User Charges From 1 April 1987

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 2 costs in what is believed to be an average farm vehicle and distance.

Vehicle	1 - 5 t, 5000 km	Gross Rate (GST Incl.)	\$144.65
	2 - 10 t, 5000 km	Gross Rate (GST incl.)	\$578.05

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.

#### 2.21.4 Fuel, Oil and Grease - GST Inclusive

- Petrol    - Regular (91 octane) 89 cents per litre.  
           - Super (96 octane) 92 cents per litre.
- Diesel    - 69 cents per litre. (retail sales)  
           - 67.4 cents per litre for bulk sales of 1000 litres or more.

<u>BP OIL NZ LTD</u>		<u>Wholesale</u>
		<u>Price</u>
Visco 2000	- 4 litre plastic cube	\$ 10.98
	- 20 litre plastic cube	\$ 54.67
	- 60 litre plastic cube	\$159.72
Universal Tractor Oil	- 60 litre plastic cube	\$173.57
	- 210 litre plastic cube	\$575.19
Visco Static	- 20 litre plastic cube	\$ 45.43
	- 60 litre plastic cube	\$132.00
Gear Oil 80 EP	- 20 litre plastic cube	\$ 49.17
	- 60 litre plastic cube	\$143.22
Hypogear 80W-90 EP (Transmission oil)	- 60 litre	\$151.14
	- 20 litre	\$ 51.81
Power Stroke (Two Stroke Oil)	- 20 litre drum	\$61.15
	- 60 litre drum	\$171.60
Multi-purpose grease	- 2.5 kg drum	\$ 10.78
	- 18 kg drum	\$ 70.38
	- 55 kg drum	\$194.20
Antifreeze	- 20 litre plastic cube	\$ 57.09
	- 60 litre plastic cube	\$166.98

#### 2.21.5 Tyres

##### FIRESTONE

<u>Truck</u>	<u>Ply</u>	<u>Price</u>
700-14 TU	8	\$150.38
700-15 TU	8	\$145.10
825-15 TB	14	\$317.25
600-16 TU	6	\$122.45

Prices Exclude GST

650-16 TB	8	\$139.30
750-16 TB	10	\$238.85
825-16 TB	12	\$292.65
825-16 TB	14	\$321.95
825-20	12	\$277.95
900-20	14	\$358.50
1000-20	14	\$413.60
1100-22	12	\$528.25
<u>Tractor-Front</u>		
600-16	6	\$115.00
750-16	8	\$187.00
900-16	8	\$211.75
<u>Tractor-Rear</u>		
14.9/13-24	6	\$425.45
11.2/10-28	4	\$318.50
12.4/11-28	6	\$394.40
14.9/13-28	6	\$500.85
16.9/14-30	8	\$794.15
12.4/11-36	6	\$457.80

### 2.21.6 Repairs and Maintenance

See Section 2.20.2 and 2.21.7

### 2.21.7 Tractor Running Costs

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

#### 30 kW (40 HP) Tractor

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

Initial Cost \$20,000

Resale Price \$ 7,000

#### Fixed costs per annum

Opportunity cost \$20,000 at 20% \$4,000.00

Replacement cost \$20,000 - \$7,000

\$13,000 x sinking fund factor

(20% for 5 years) .13438	\$1,746.94
Annual licencing fee	\$ 72.50
Insurance \$46 plus .55% on balance over \$5,000	\$ 128.50
	<b>\$5,947.94</b>

Total fixed cost per hour (700 hours/year) \$8.50

**Variable costs per hour**

Fuel (.26 litres/kW hr) 7.8 litres at 69c/litre	\$5.38
Oil and filters 15% of fuel cost	\$0.81
Repairs and maintenance .80% of purchase price over economic life (3500 hours)	\$4.57

Total variable costs per hour \$10.76

Total cost per hour \$19.26

Total per ha (assuming .607 ha per hour) \$31.72

Including labour at \$8 per hour	Total per hr	\$27.26
	Total per ha	\$44.90

**48 kW (64 HP) Tractor**

Economic Life 3500 hrs (5 years) 700 hours per year  
Initial Cost \$33,000  
Resale Price \$12,250

**Fixed costs per annum**

Opportunity costs \$33,000 at 20%	\$6,600.00
Replacement cost (\$33,000 - \$12,250) \$20,750 x Sinking fund factor (20% for 5 years) .13438	\$2,788.38
Annual licencing fee	\$ 72.50
Insurance \$46 plus .55% on balance over \$5000	\$ 200.00
	<b>\$9,660.88</b>

Total fixed cost/hour assuming 700 hours/yr \$ 13.80

**Variable costs per hour**

Fuel (.26 litres/kW/hr) 12.48 litres at 69c/litre	\$ 8.61
Oil and filters 15% of fuel cost	\$ 1.29
Repairs and maintenance 80% of purchase price over economic life (3500 hours)	\$ 7.54
Total variable cost per hour	\$ 17.44



Total cost per hour		\$ 31.24
Total per ha (assuming .81 ha per hour)		\$ 38.57
Including labour at \$8 per hour	Total per hour	\$ 39.24
	Total per ha	\$ 48.44

### 73 kW (105 HP) Tractor

Economic Life 3500 hrs (5 years) 700 hours per year  
 Initial Cost \$45,000  
 Resale price \$15,750

#### Fixed costs per annum

Opportunity cost \$45,000 at 20%	\$ 9000.00
Replacement cost (\$45,000 - \$15,750)	
\$29,250 x sinking fund factor	
(20% for 5 years) .13438	\$3,930.61
Annual licencing fee	\$ 72.50
Insurance \$46 plus .55% on balance	
over \$5,000	\$ 266.00
	<b>\$13269.11</b>

Total fixed costs per year assuming 700 hours/year \$ 18.96

#### Variable costs per hour

Fuel (.26 litres/kWhr) 18.98 litres at 60.5c/litre	\$ 13.10
Oil and filters 15% of fuel cost	\$ 1.96
Repairs and maintenance 80% of purchase price	
over economic life (3500 hours)	\$ 10.29
Total variable costs per hour (700 hrs/year)	\$ 25.35

Total cost per hour \$ 44.31

Total per ha (assuming 1.05 ha per hour) \$ 42.20

Including labour at \$8 per hour	Total per hr	\$ 52.31
	Total per ha	\$ 49.82

### 119 kW (160 HP) Tractor

Economic Life 3500 hrs (5 years) 700 hours per year  
 Initial Cost \$90,000  
 Resale Price \$18,000

#### Fixed costs per annum

Opportunity cost \$90,000 at 20%	\$18,000.00
Replacement cost (\$90,000 - \$18,000)	
\$72,000 x sinking fund factor	

(20% for 5 years) .13438	\$ 7681.21
Annual licencing fee	\$ 72.50
Insurance \$46 plus .55% on balance over \$5000	\$ 513.50
	<b>\$26,447.21</b>

Total fixed costs per year assuming 700 hours/yr \$ 37.78

**Variable costs per hour**

Fuel (.26 litres/kW/hr) 30.94 litres at 69c/litre	\$ 21.35
Oil and filters 15% of fuel cost	\$ 3.20
Repairs and maintenance 80% of purchase price over economic life (3500 hours)	\$ 20.57

Total variable cost per hour \$ 45.12

Total cost per hour \$ 82.90

Total per ha (assuming 1.22 ha per hour) \$ 67.95

Including labour at \$8 per hour	Total per hr	\$ 90.90
	Total per ha	\$ 74.51

**2.21.8 Combine Harvester Running Costs**

**108 kW (150 HP) Header Harvester**

Economic Life 2000 hours (10 years) 200 hours per year

Initial Cost \$140,000

Resale Price \$ 49,000

**Fixed costs per annum**

Opportunity cost \$140,000 at 20%	\$28,000.00
Replacement cost (\$140,000 - \$49,000) \$91,000 x sinking fund factor (20% for 5 years) .13438	\$ 12228.58
Annual licence (6 months)	\$ 39.99
Insurance \$46 plus .55% on balance over \$5000	\$ 782.50
	<b>\$ 41051.07</b>

Total fixed costs per hour assuming 200 hrs/year \$ 205.25

**Variable costs per hour**

Fuel (.26 litres/kW hr) 28.08 litres at 69c/litre		\$	19.38
Oil and filters 15% of fuel cost		\$	2.90
Repairs and maintenance 80% of purchase price over economic life (2000 hours)		\$	56.00
Total variable costs per hour		\$	78.87
Total cost per hour		\$	284.13
Total per hour (assuming 1.25 ha per hour)		\$	227.30
Including labour at \$12 per hour	Total per hr	\$	296.13
	Total per ha	\$	236.90

## 2.22 ELECTRICITY

### **2.22.1 Manawatu**

#### Manawatu-Oroua Electricity Power Board

##### Domestic

Supply Charge	\$4.00/month
Units Used - 24hr supply	\$0.079/unit
Less than 24 hr supply	\$0.046/unit
Economy, between 11pm-7am	\$0.040/unit

##### Non-Domestic

Supply Charge	\$4.00/month
Units Used - 24hr supply	\$0.144/unit
Less than 24hr supply	\$0.058/unit
Uncontrolled e.g. Brooders, Incubators, Piggeries	\$0.108/unit

##### Non-Domestic Night/Day Rate

Supply Charge	\$4.00/month
Night Units	\$0.066/unit
Day units	\$0.174/unit

##### Irrigation

Supply Charge	\$4.00/month
Units Used (subject to control)	\$0.076/unit

### **2.22.2 Canterbury**

#### Central Canterbury Electric Power Board Farm Tariffs.

(N.B. These tariffs apply from 1st April 1987).

A discount of 10% applies to all accounts paid within fourteen days after date of rendering.

#### **NON-DOMESTIC TARIFFS:**

A consumer intending to change tariff code must give at least one month's notice of intention to change and undertake to remain on the new tariff for at least twelve months.

Non-domestic tariffs N1 to N5 below apply to consumers supplies at 400/230 volts.

- (R1) For consumers supplied on tariffs N1 to N5 at 400/230 volts through equipment owned by the Board, but where the metering is on the 11,000 volts side of the transformer within the consumer's premises, a rebate of 1.5% applies to the demand and energy components only.
- (R2) For consumers supplied on tariffs N1 to N5 at 11,000 volts through equipment owned by the consumer and where the metering is on the 11,000 volt side of the transformers within the consumer's premises, a rebate of 3.5% applies of the demand and energy components only.

Accounts for supply on tariffs N1 to N4 will be rendered two-monthly. Accounts for supply on N5 and N6 will be rendered monthly. These intervals may be varied at the discretion of the Board.

Where two rate tariffs apply, day hours are between 7.00 a.m. and 9.30 p.m. and night hours are between 9.30 p.m. and 7.00 a.m.

Night rates may be reduced to between 11.00 p.m. and 7.00 a.m. in the future, to coincide with N.Z.E. night rate hours.

### Code

#### N1 NON-DOMESTIC TARIFF NO. 1 - GENERAL SUPPLY

Applicable to installations used for all non- domestic purposes (except irrigation pump motors) where the maximum demand is 40 kVA or less. Applicable to irrigation pumps up to 5 kW.

(ES) Supply charge 34.6c/day, (\$138.92 per annum incl. GST)

(E1) Plus all units at 14.93 cents each.

Consumers whose consumption patterns have a significant seasonal variation resulting in only a small proportion of their daytime maximum demands being above 40 kVA may, at the discretion of the Board, be permitted to take supply under this tariff.

#### N2 NON-DOMESTIC TARIFF NO. 2 - GENERAL SUPPLY (TWO RATE)

Applicable to installations used for all non- domestic purposes (except irrigation pump motors) where the maximum demand is 40 kVA or less. Applicable to irrigation pumps up to 5 kW.

(GS) Supply charge 42.7c/day, (\$171.44 per annum incl.GST)

(G2) Plus day units at 14.93 cents each.

(G3) Plus night units at 4.66 cents each.

Consumers whose consumption patterns have a significant seasonal variation resulting in only a small proportion of their daytime maximum demands being above 40 kVA may, at the discretion of the Board, be permitted to take supply under this tariff.

#### N3 NON-DOMESTIC TARIFF NO. 3 - CONTROLLED SUPPLY

Applicable to all permanently connected appliances used for non-domestic purposes and approved by the Board, except irrigation pump motors. Consumers on this tariff will be controlled off-peak at the discretion of the Board.

All waterheater installations on this tariff must comply with N.Z. Standard Specifications 4602 and 4603.

(H4) All units at 7.47c each.

(HN) The Board will install and maintain an approved time switch or other means of control at a rental of \$32.52 per annum incl. GST. (8.1c/day).

(HS) If supply is taken on this tariff only, a supply charge of \$138.92 per annum incl. GST will also apply. (34.6c/day)

**N4 NON-DOMESTIC TARIFF NO. 4 - LARGE USER SUPPLY**  
Applicable to installations used for all non-domestic purposes (except irrigation pump motors) where the maximum demand is between 40 kVA and 250 kVA.

(JS) Supply charge of \$171.44 per annum incl. GST. (42.7c/day).

(J2) Plus day units at 8.22c each.

(J3) Plus night units at 4.66c each.

(JD) Plus a demand charge of \$9.70 per kVA per month for day-time demands with a minimum chargeable demand of 20 kVA. (29.0c /kVA/day).

Consumers whose consumption patterns have a significant seasonal variation resulting in only a small proportion of their daytime maximum demands being in the range 40 - 150 kVA may, at the discretion of the Board, be permitted to take supply under tariff codes N1 or N2.

**N5 NON-DOMESTIC TARIFF NO. 5 - BULK SUPPLY**  
Applicable to installations - used for all non-domestic purposes (except irrigation pump motors) where the maximum demand is more than 150 kVA.

(KS) Supply charge of \$171.44 per annum incl. GST. (42.7c/day).

(K2) Plus day units at 8.22c each.

(K3) Plus night units at 4.66c each.

(KD) Plus a demand charge of \$14.36 per kVA per month for day-time demands in the months of May, June, July, August, September, with a minimum chargeable demand of 150 kVA.

**Prices Exclude GST**

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(KD) Plus a demand charge of \$4.18 per kVA per month for day-time demands in those months not included above, with a minimum chargeable demand of 150 kVA.

Meters will normally be read on the last working day of each month except December. In December, meters will normally be read on the working day closest to December 20. These dates may be varied at the discretion of the Board.

Consumers whose consumption patterns have a significant seasonal variation resulting in only a small proportion of their daytime demands being above 150 kVA may, at the discretion of the Board, be permitted to take supply under tariff codes N1, N2 or N4.

### **Rates for Irrigation**

Where two rate tariffs apply, day hours are between 7.00 am and 9.30 pm and night hours are between 9.30 pm and 7.00 am.

Night hours will be reduced to between 11.00 pm and 7.00 am in the future. This change is to coincide with NZE night rate hours.

### **11 IRRIGATION SUPPLY**

Applicable to irrigation pump motors with a connected load in excess of 5 kW.

Up to 5 kW of other load may be connected at the day rate on this tariff. Each standard 10 amp socket for portable appliances will be assessed at 1 kW.

(WC) Annual capacity charge of \$24.50 per annum (incl. GST) kW of connected load.

(W2) Plus day units at 10.84c each.

(W3) Plus night units at 4.66c each.

(WR) A rebate of 4.12c per day (\$16.54 per annum incl. GST) per kVA of power factor correction capacitors fitted and functioning to the satisfaction of the Board. Where portable irrigation plants may be used at one or more metered supply points all supply points in excess of the number of irrigation plants will incur capacity charges equal 50% of the above. For each such supply point, the basis for capacity charges will be the rating of the largest irrigation plant which will be operated at that supply point.

Capacity charges apply over the complete year beginning April 1 for loads connected for any part of the year, except that charges for new installations will commence from date of first connection.

In the event of the disconnection of an existing installation, the outstanding balance of the capacity charge for the year will become immediately due for payment. Payment of capacity charges cannot be avoided by disconnections and reconnections.

## I2 IRRIGATION SUPPLY - SMALL USERS

An optional tariff available to irrigation pump motors with a connected load between 5 kW and 20 kW.

Up to 5 kW of other load may be connected at the day rate on this tariff. Each standard 10 amp socket for portable appliance will be assessed at 1 kW.

(IS) Supply charge of \$171.44 per annum incl. GST (42.7c per day)

(I2) Plus day units at 14.93 each.

(I3) Plus night units at 4.66c each.

(IR) A rebate of 4.12c per day (\$16.54 per annum incl. GST) per kVA of power factor correction capacitors fitted and functioning to the satisfaction of the Board.

Consumers must take supply for not less than twelve consecutive months in each year.

(NB: If Sufficient daytime usage is made of pumps between 7 kW and 20 kW, it may be cheaper to run on the I1 tariff. If so, contact your Central Canterbury Power Board for further advice).



## 2.23 ADMINISTRATION EXPENSES

### **2.23.1 Telephone and Toll Charges**

#### Rental (2 monthly basis)

Class	Business Rate		Residential Rates	
	B1	B2	B3	
1	118.25	86.90	40.70	28.05
2	150.15	106.15	48.40	33.55
3	152.35	123.20	55.00	39.09
4	182.05	133.65	56.65	40.70
5	187.00	138.60	57.75	42.35
6	195.50	144.10	59.40	44.00
7	201.85	152.35	61.05	45.65

**Note:** B3 - Residential rate but for after hours Business Phone.

- Class 1 - Restricted attendance exchanges.
- Class 2 - Automatic exchanges (up to 200 subscribers) and continuous attendance manual exchanges (201-3000 subscribers)
- Class 3 - Automatic exchanges (201-3000 subscribers) and manual exchanges (3000 plus subscribers)
- Class 4 - Automatic exchanges (3001-10000 subscribers).
- Class 5 - Automatic exchanges (10001-20000 subscribers).
- Class 6 - Automatic exchanges (20001-80000 subscribers).
- Class 7 - Automatic exchanges (80000 plus subscribers).

#### Tolls

#### **Charges for 3 Minute Calls. (GST Inclusive)**

The charge for a three minute call to any exchange may be obtained from the local Toll Operator on request.

Distance	Charge	Peak	Standard	Night	Off-Peak
Up to 40 km	A	\$0.19	\$0.19	\$0.19	\$0.09
Over 40 up to 50	B	\$0.37	\$0.37	\$0.37	\$0.19
Over 50 up to 65	C	\$0.66	\$0.59	\$0.56	\$0.30
Over 65 up to 100	D	\$1.02	\$0.92	\$0.75	\$0.36
Over 100 up to 165	E	\$1.58	\$1.39	\$0.99	\$0.49
Over 165 up to 245	F	\$2.08	\$1.81	\$1.35	\$0.66
Over 245 up to 325	G	\$2.64	\$2.31	\$1.62	\$0.79
Over 325 up to 485	H	\$3.17	\$2.77	\$2.01	\$0.99
Over 485 up to 650	I	\$3.93	\$3.40	\$2.57	\$1.25
Over 650	J	\$4.32	\$3.76	\$2.84	\$1.42

**Rating Periods.** On Week days:

Peak: 8am - noon

Standard: noon - 6pm  
 Night: 6am - 8am and 6pm - 10.30pm  
 Off-Peak: 10.30pm - 6.00am

On Sundays and Holidays:

Standard: 6am - 10.30pm  
 Off-Peak: 10.30pm - 6.00am

Additional Minutes:

Where the distance is more than 50 kilometres each additional minute after the first three is charged for at one-third of the minimum rate except that toll calls from coin-box telephones are charged for in multiples of three minutes regardless of the distance.

**Urgent Calls:**

Double the rate applicable at the time the call is connected.

**2.23.2 Postage and Stationery**

Surface Mails - inland:

Standard letters - 40c.

Airmail letter rate 10g - 60c.

Non standard articles:

	<u>1st Class</u>	<u>2nd Class</u>
100 g	\$0.70	\$0.60
250 g	\$0.90	\$0.70
500 g	\$1.40	\$0.95
1 kg	\$1.90	\$1.50

**PARCELS**

<u>Weight</u>	<u>Within a district or within 50 kms</u>	<u>Within an island</u>	<u>Inter-island</u>
Up to 3kg	\$2.65	\$2.90	\$4.25
3-5 kg	\$3.10	\$3.50	\$5.85
5-10kg	\$3.80	\$4.85	\$9.25

Stationery costs are variable depending on the size of the business and the intensive nature of the management.

**2.23.3 Subscriptions**

Both to farming magazines and to various farming organisations. The costs in both instances are fully tax deductible.

Some examples are:

### **Magazines**

"New Zealand Farmer" - \$70.50 per year (50 issues).

"Dairy Exporter" - \$16.25 per year (12 issues).

"New Zealand Journal of Agriculture" - \$79.20 (3 years).

"Straight Furrow" - \$25 (24 issues).

"Aglink" Index free, Leaflets 50c per copy.

### **Organisations**

#### Federated Farmers (Manawatu)

Owner:	\$100.00
Sharemilker:	\$ 78.50
Associate member:	\$ 40.00

#### **2.23.4 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.

#### **2.23.5 Bank Fees and Stock Company Charges**

Banking and various Stock Company charges add to total administrative costs and so must be accounted for.

#### Banks - (cheque accounts):

- Base fee \$3.50 per quarter, March, June, September, December.

- Ledger Activity Fee - 18c per chargeable transaction (after first 10 transactions per month).

- Cheque Duty 5c per cheque.

- Clearance Fee. No clearance fee for personal cheque accounts. 15c per transaction for 'business' accounts.

N.B. Most farmers would be classified as personal cheque account holders, unless a farming company is involved.

#### Stock Companies:

Client drawing on a stock company account - 10c including stamp duty. Stock company paying accounts for client per payment \$1.00. No base fee is charged.

## 2.24 STANDING CHARGES

### **2.24.1 Insurances**

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.

**Buildings:** per \$100 value.

House Owners Cover Dwellings	-	Brick	\$0.200
	-	Wood	\$0.280
Outbuildings - any construction			\$0.270
All Risks Dwelling contents (regardless of construction.)			\$0.600-\$0.680

**Plant:** per \$100 value (same as buildings).

Full Perils (All Risks) Cover: \$0.27

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

Manures and general farm produce whilst on the farm - \$0.270/\$100

Livestock on farm (fire only) \$0.090/\$100

**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.

Contractors pay these rates plus an additional premium on their vehicles.

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, scanprobe, nitrogen containers, radio telephones etc.

All Risks: per \$100 value - .270%

**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 that for contents of the building. Rate - .270%)

**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 section 2.25.2 and 4.8.3)

**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.

Cover	Premiums
\$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**

These 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)

### **2.24.2 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 4.8.3.

### **2.24.3 Rates**

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;

Manawatu County Council

General rate is 0.6582c per \$ land value

Horowhenua County Council

The rural sector of the county are presently levied with a general rate of .5091 cents in the dollar on the land value of the property. In addition the council also collects for the Manawatu Catchment Board an administrative

rate of .02984 cents in the dollar on the capital value of any particular rural property. As well as the general rate, depending on the location and the services supplied, water or sewage rates may be applicable.

Paparua County Council

Rate varies depending on the district.

Rural district general rate is .3703c per \$ value plus water supply if applicable. For stock water supply see Section 2.14.8

For budgeting purposes ask the farmer or the local body concerned.

#### **2.24.4 Interest**

##### **Rural Banking and Finance Corporation**

General Policy: To consider any viable agricultural, horticultural or fishing requirement subject to meeting security liabilities and commercial lending criteria.

Standard Policies:

##### Finance for land purchase

All types of proposals whether for the acquisition of established farming, horticulture, forestry, or other primary sector enterprises. Land for development, small holding or additional land to expand an existing holding can be financed.

The bank can finance up to 100 percent of the cost of the proposal provided there is adequate security and the loan can be serviced from all sources of income.

Security will normally include a mortgage over the land plus, if necessary, collateral security over livestock, machinery, or other assets. First second or subsequent mortgages are acceptable.

Flexible loan terms and repayment arrangements can be provided to suit the circumstances of each proposal.

Interest rates are reviewable in line with market rates. Currently 18%.

##### Finance for Plant, Machinery and Vehicles.

The purchase of new or used mobile or fixed plant, machinery and vehicles used for primary sector business - for example:

- \* Tractors and Bulldozers
- \* Harvesting machinery
- \* Cultivation
- \* Grain storage and handling
- \* Road transport
- \* Forestry and wood processing equipment
- \* Processing and manufacturing equipment

- \* Specialised equipment, computers, laboratory, veterinary
- \* Fishing vessel and onshore equipment

There is no maximum loan but amounts of less than \$1000 would not normally be considered.

The bank will require security over the plant or machinery or over other suitable assets such as land. Where security is solely over the plant and machinery the normal margin is 50 percent, however, up to 100 percent financing can be provided where suitable collateral security is available.

The loan types will depend on the type of asset being financed but are normally for three to seven years. Flexible arrangements including an initial period of reduced payments is available.

Interest rates will depend on the type of proposal and security available. Currently 20.5%.

#### Finance for livestock.

The purchase of income earning livestock including -

- \* Sheep
- \* Beef cattle
- \* Dairy cattle
- \* Deer
- \* Goats
- \* Thoroughbred and standardbred breeding stock
- \* Poultry, rabbits, fitch

Security over livestock, real estate or other assets will be accepted as collateral. Up to 100 percent of the cost can be considered where adequate collateral is available. Where security is solely over the livestock, the normal margin is up to 60 percent of their value.

Loan terms are flexible but will not normally exceed five to seven years. Flexible repayment options are available. Interest rates are reviewable in line with changes in market rates. Currently 18.5%.

#### Finance for Fishing

The bank can provide finance for, but not limited to, the following purposes:

- \* The construction of new fishing vessels either in NZ or overseas
- \* The purchase of second-hand fishing vessels either in NZ or overseas
- \* The purchase of individually Transferable quotas (ITQ's)
- \* The purchase, erection or expansion of fish processing shore facilities
- \* The development of marine farms such as salmon, mussels or rock oysters
- \* Restructuring of existing on-shore or off-shore loans



- \* Bridging finance
- \* Working capital

There is no maximum loan limit and funds are available for any proposal that meets the bank's lending criteria regarding viability and security. There must be adequate security to support the amount of loan required.

Preferred security is over land and buildings, plant, fishing vessels or ITQ's, however they are prepared to consider other forms of security. The security offered need not necessarily relate directly to the project being financed.

Interest rates depend on the type of proposal and risk involved and are reviewable (up or down) during the term of the loan. Currently 18%.

#### Finance for Development of Farms and Business

Finance is available for a wide range of development needs such as:

- \* Erection of buildings and other structures including on and off farm housing
- \* Processing, packaging and storage facilities for all primary sector products
- \* Improvements to land including clearing, fencing, grassing, horticultural and forest plantings, topdressing, roading, watersupply and irrigation
- \* Purchase of stock and plant

The Bank normally only considers loans over \$10000. Up to 100 percent of the development costs may be provided as long as there is satisfactory security and servicing for the loan.

Preferred security will normally take the form of a first or subsequent mortgage or other security over specific tangible assets such as real estate, plant and machinery or livestock, etc.

Loan terms and repayment arrangements are flexible. Where necessary provision can be made for reduced repayments in the initial period of the development programme.

Interest rates which are reviewable in line with market rates are available. Currently 18.5%.

#### Loans for Refinance

Finance is available to refinance debt falling due for repayment or to restructure or consolidate primary sector business debts. Loans can be provided for the refinancing or restructuring of :

- \* Long term debts
- \* Flat loans
- \* Short term debt
- \* Bridging finance

- \* Family debt
- \* Offshore loans
- \* Hire purchase debt
- \* Seasonal advances
- \* Commercial bills, etc

Preferred security will normally take the form of a first or subsequent mortgage or other security over specific tangible assets such as real estate, plant and machinery or livestock. Other security is also considered.

A flexible range of repayment options are available. Interest rates are reviewable in line with changes in market rates. Currently 18.5%.

### **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 valuers value) unless there are special provisions in the will of Trust investment which govern investment.

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 20% and 28%.

### **Stock and Station Agencies**

These institutions have agreed to limit their lending to seasonal only. 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 18-20% for arranged finance and between 20% and 29% 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, the savings subsidiaries are able to offer longer term funds for land purchase. The following avenues are generally available:

#### Term Loans:

- Maximum Term 5 years minimum 6 months.
- Current minimum rural rates 2.5% above Base Rate. (base rate 19.75% on 7/12/87).

**Prices Exclude GST**

- 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 3.5%.

#### Off Shore Loans:

- No specific ceiling. All negotiable as to term and rate.  
Only suitable for very large deals.

#### Personal Loans:

- Maximum Term 5 years, minimum 6 months.
- Amounts: Minimum \$500  
Maximum \$20,000
- Rates 23.0% secured 24.5% unsecured per annum
- Home improvement, personal expenditure, garages, pools, drive-ways etc.

#### Lease Finance:

- Term - Usually 3 to 5 years but longer terms can be considered.
- Rates 27.5%
- 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 \$20,000
- Rates subject to market fluctuations - currently around 19%
- 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.

### **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:

- Loans between 50 and 75% of valuation on first mortgage (limit usually negotiable and dependant on servicing ability)
- Terms: 20-25 years occasionally up to 40 (table)
- Interest: Within range 21 - 27% (1st mortgage)

### **Other Institutions**

Under certain circumstances several other institutions will lend money for land, stock and plant purchase, development or other agricultural and related projects. These include Building Societies, Dairy Companies (usually clients only) and Life Insurance Companies. Interest rates and terms are usually negotiated for individual situations.

### **2.24.5 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.

## **2.25 PROFESSIONAL FEES**

This section is designed to assist in the assessment of various fees and charges associated with the purchase and sale of land such as valuation, surveying, real estate and legal costs.

It also covers the costs or charges of various Institutes and Societies that offer services to the rural community, such as farm consultancies, rural valuers and farm accountants.

### **2.25.1 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.

The fees definitely bear no relationship to the farmer's capital or net taxable balance, or turnover.

For Lincoln College budgeting purposes, assess fees based on the total capital involved, the degree of intensification of the management, and the form of ownership.

The current range of accounting costs are approximately 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

N.B. With the introduction of the new taxation provisions (particularly regarding livestock) fees for the 1987 income year will be higher by approximately 15 to 20%.

### **2.25.2 Consultancy Charges**

Only Registered Farm Management Consultants can charge fees and these are based on an hourly rate (usually between \$40.00 and \$50.00).

Travelling and administration expenses and computer time charges are all extra.

#### Lincoln College Farm Advisory Service

Lincoln College 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 fees are based on a rate \$50 per hour (regularly serviced clients) or \$65 to \$75 (special or one off situations). Travel is charged at a rate of 50c per km in the first case and 65c per km in the second. Valuation charges are according to the N.Z.I.V.

Enquiries should be addressed to:

The Officer in Charge,  
Farm Advisory Service,  
Lincoln College,  
Canterbury.

#### Lincoln College Property Management Service

Lincoln College has established the Property Management Service as an independent body to promote farming agreements. The main function related to both sharefarming and partnership agreements is to draw up

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agreements to meet the particular requirements of the parties and the property concerned.

Agreement Fee \$800.00

This fee is subject to variation according to the complexity of the agreement and additional work involved over the 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 Deputy Director,  
Property Management Service,  
Lincoln College,  
Canterbury.

### **2.25.3 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 first \$50,000 in the value of land or buildings to be used primarily and 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.

### **2.25.4 Real Estate Charges**

As from 1st December 1985 the Real Estate Institute of New Zealand Incorporated abolished its professional scale of charges. It then adopted a recommended fee until 1st April 1986 when that recommended fee was revoked.

As at 1st January 1987 there is 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 ranges:

(a) Residential sales:

\$350 basic fee

Plus 3.5% commission on the first \$200,000 of consideration

Plus 1.5% commission on balance of consideration.

Alternatively:

4% commission on the first \$200,000 of consideration

2% commission on balance of the consideration.

There are a range of varying charges between the 2 levels noted and in less frequent circumstances lower or higher charges may be levied.

The general criteria by which agents fix fees now relate to the level of professional services which the individual company offers. When vendors select intensive marketing programmes, higher fees may be levied. If vendors participate in advertising costs then lower basic fees may be rendered. Sole agencies may attract lesser fees than general agencies.

Auction Sales (Sales other than mortgage 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.

Mortgagee Sales etc:

Again the fees are negotiable. However the following general criteria usually applies:

1. Where a property is offered under instructions from the mortgagee and has bought in by the mortgagee at the redemption value or where a mortgagee holds a sale and fails to reach the redemption value, or where a mortgagee withdraws the property before the auction, an offering fee being half the basic fee is charged on the redemption value.
2. Where the property is sold above the redemption value whether to the mortgagee or to other than the mortgagee, as the case may be, the fee is usually the basic fee as agreed.

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3. Where any land or interest in land is sold or withdrawn on the basis that the purchaser or mortgagor assumes for the amount owing in respect thereof by the vendor, whether secured on mortgage or charged upon the land, or payable under the agreement for sale and purchase, or deferred payment license, the amount for which liability is so assumed may be deemed as the consideration for the purpose of assessing a fee as detailed in the basic fee or withdrawal fee.
4. Where the auctioneer is instructed to provide a popular description for advertising purposes and an additional fee may be charged.

#### Multiple Sales and Exchanges:

Where there are multiple sales, exchanges or similar arrangements negotiated together, the fee may be charged as agreed on each sale, exchange or arrangement as a separate transaction.

#### Purchasing Clauses in Leases:

A compulsory purchase clause in a lease is treated as the sale of freehold as the case may be and fees levied in accordance with an agreed basic fee may be charged. One half of the fee on a conditional contract is levied and the balance on completion of the sale.

#### Explanations

Business: The value of all goodwill, plant, fittings, fixtures, chattels and stock in trade included in a sale may be collectively be treated as the purchase price.

Chattels - the value of chattels in the sale with the property may be treated as part of the purchase price.

Company shares - where a sale of shares in a company effectively does what a sale, lease or assignment would otherwise have done, then fees may be negotiated in accordance with the basic fee as agreed as if such sale, lease or assignment had actually taken place.

Fees may be negotiated on the cash value of the consideration, passing to the vendor plus the value of any liability transferred from the vendor to the purchaser or benefit transferred from the purchaser to the vendor at the price shown on the contract.

#### Leasing, Letting, Assignments:

Again fees are totally negotiable.

Residential letting usually attracts a fee of between 1 and 2 weeks' rental.

It is common for commercial leasing in the Canterbury area to attract fees of 8.5% of the average annual rental for a term of from 1 to 5 years

inclusive and an additional 1% for each additional year in excess of 5 years. Total fees usually do not exceed 16% of the average annual rental.

#### Property Management:

The fee for commercial property management is totally negotiable and usually fixed having consideration to the amount of work and supervision required in property management and the extent of range of services which the client seeks. For larger multi-storied commercial office buildings it is common for management fees to range between 3.5% and 6% of gross rentals inclusive of lessee outgoings collected during management. Lower fees than 3.5% are uncommon. Fees up to 7.5% may be rendered in particular circumstances.

Residential property management commonly attracts a fee in the region of 6 to 7.5% of rentals.

#### Consultations and Appraisals:

Fees are usually rendered on an hourly basis by arrangement between the principal and the agent. Under the Code of Ethics of the R.E.I.N.Z. agents and members of the institute can levy a fair fee for consultation services.

#### Conjunctional Sales between members - by arrangement and agreement:

Subdivision: Where the agent advises the vendor on planning for a subdivision and is involved in the marketing it is common for higher fees than the fees noted above to be levied. In some circumstances basic marketing fees of 5 to 6% of contract prices are agreed. In addition it is usual for the vendor to bear advertising and promotional costs or a fair proportion of them.

It should be emphasised that the above notes are for the guidance of students only. There is now no fixed scale of charges.

Where a subdivision or other survey work is contemplated it is suggested that a Registered Surveyor or firm of Surveyors be approached and asked to give an estimate of the costs involved. They will be quite prepared to do this and can also advise on all aspects of the subdivision.

#### **2.25.5 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 may be based on an hourly rate and vary depending on the degree of skill or responsibility required, expenses incurred and other factors. Travelling allowance (mileage) is normally charged at the maximum State Service rate.

### **2.25.6 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 \$30 (plus GST) per document unless unusual or complex in which case this fee may be increased.

## 2.26 WAGES

### 2.26.1 Farms and Stations (Dairy Farms) (As from 1/9/87)

<b>Permanent</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	\$118.83	\$126.32
17 years and under 18	\$140.21	\$148.20
18 years and under 19	\$160.75	\$169.87
19 years and under 20	\$181.35	\$191.67
20 years and over	\$195.78	\$206.92

[The above figures are minimum rates of wages.]

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 1/50th of the 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	\$4.01/week
2nd qualifying T.C.B. in farming OR qualifying assessment tasks	90 tasks	\$6.69/week
Trade Certificate in farming OR Trade Certificate assessment tasks	20 tasks	\$10.70/week
Trade Certificate in Farm Management		\$16.05/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.

### **2.26.2 Farms and Stations**

- (i) **(Sheep, Meat and Wool)** As from 1/4/87
- (ii) **(Meat (other than sheep meat) Grain, Seed and Herbage)** As from 1/4/87

<b>Permanent</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	\$111.68	\$118.00
17 years and under 18	\$130.29	\$137.69
18 years and under 19	\$153.05	\$161.72
19 years and under 20	\$169.58	\$179.18
20 years and over	\$184.06	\$194.48

The above figures are minimum rates of wages.

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 Rations	Per hour with Rations
Under 18 years of age	\$4.61	\$4.02
18 years and over	\$5.65	\$5.04

### **Training Incentives, Wet Weather Gear Allowance and Vehicle Use**

Refer to Section 2.26.1

### **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.

### 2.26.3 Shearers' and Shedhands' Wages (19/10/87)

N.B. These are NOT contractors rates (see Section 2.27.7)

#### Shearers Rates (minimum with rations)

Machine shearing base rate (sheep)	\$67.00/100
Machine shearing base rate (lambs)	\$60.30/100
Machine shearing with snow comb	\$75.05/100
Blade shearers	\$105.49/100
Machine shearing with bellies left on.	\$64.82/100

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. \$100.50 per 100.

The shearing rate for other rams is double base rate, i.e. \$134.00 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	\$33.50
Full belly, full crutch, and flank	\$31.83
Full belly, full crutch, eye wig	\$30.15
Full belly, tail crutch, eye wig	\$24.57
Full belly, full crutch	\$28.37
Full belly, tail crutch	\$22.78
Full belly, full crutch and eye wig - Lamb	\$27.13
Full belly, full crutch, lamb	\$25.53
Half belly, full crutch, flank and eye wig	\$30.15
Half belly, full crutch, eye wig	\$26.80
Half belly, full crutch only	\$25.01
Full crutch and eye wig sheep	\$22.34
Full crutch and eye wig lamb	\$20.10
Full crutch only.	\$20.54
Full crutch lamb	\$18.50
Tail crutch, eye wig	\$18.54
Tail crutch, eye wig, lamb	\$16.68
Tail crutch	\$16.75
Tail crutch, lamb	\$15.07
Eye wig only	\$16.75

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 \$7.00 per hour. Shedhands with three weeks or more experience, shall be paid not less than \$8.00 per hour. Shedhands holding a wool handling certificate shall have their hourly rate increased by 70 cents. Dagers shall be paid not less than \$9.07 per hour, or \$20.12 per 100.

Pressers shall be paid not less than \$9.07 per hour.

For cooking for 18 persons and under, cooks shall be paid not less than \$77.13 per day. For over 18 persons a cook's assistant shall be engaged and shall be paid not less than \$7.85 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.

### **2.26.4 Market Garden Workers (As from 9/1/87)**

<b>Permanent Workers</b>	<u>Per Week</u>	<u>Per Hour</u>
Foremen/Forewomen	\$273.87	\$6.85
Leading Hands	\$250.28	\$6.26
Adults 20 years and over	\$240.60	\$6.02
Minors 19 years and under 20	\$204.36	\$5.11
18 years and under 19	\$172.91	\$4.32
17 years and under 18	\$147.51	\$3.69
16 years and under 17	\$125.76	\$3.14
Under 16 years	\$106.38	\$2.66

Piecework - where workers are engaged on piecework they shall be notified. 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 \$11.13 per week.



An allowance of 37 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 on 5 of the seven days of the week. Time worked outside or in excess of the hours specified is overtime and is to be paid at time and a half rates for the first 3 hours and at double time thereafter.

Work on Saturdays after noon or on Sundays shall be paid at double rates.

<b>Casual Workers</b>	<u>Per Hour</u>
Adults	\$5.59
Minors	
19 years and under 20	\$4.76
18 years and under 19	\$4.06
17 years and under 18	\$3.45
16 years and under 17	\$2.93
Under 16 years	\$2.50

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.

<b>Harvesters</b>	<u>Per Hour</u>
Adults	\$5.83
Minors	
19 years and under 20	\$4.96
18 years and under 19	\$4.22
17 years and under 18	\$3.60
16 years and under 17	\$3.09
15 years and under 16	\$2.58
14 years and under 15	\$2.21
13 years and under 14	\$1.89
Under 13 years	\$1.61

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.

### **2.26.5 Orchard and Vineyard Workers (As at 3/2/87)** **Permanent Workers**

Minimum rates of wages:	<u>Per week</u>
Senior Foreperson	\$277.30
Forepersons (persons responsible to the manager and/or senior foreperson for day to day running of the establishment)	\$263.78
Adult workers 19 years and over	\$239.56
Junior workers 18 years and under 19	\$215.61
17 years and under 18	\$191.65
16 years and under 17	\$167.69
Under 16 years	\$143.73

#### **Overtime**

For permanent workers, time worked in excess of 8 hours in any one day or 40 hours in any one week, and for casual workers all time worked in excess of 10 hours per day or 44 ordinary hours per week, shall be overtime, and shall be paid at 1.5 times for the first three hours and at double time thereafter.

For permanent workers, all work performed on Sundays is paid at double time.

#### **Service Allowance.**

Adult casual workers who complete consecutive seasons as required with the same employer shall have their hours of service accumulated and when this equates to one year's service (1900 hours) the worker shall be paid 12 cents per hour extra; two years' hours of service the worker shall be paid 20 cents per hour extra; three years' hours of service the worker shall be paid 30 cents per hour extra. The above allowances shall not be cumulative but shall count for the purpose of calculating overtime.

## Casual Workers

The minimum rates of wages for casual workers shall be as follows:

	<u>Per Hour</u>
Leading hand - A person designated to be in charge of four or more other workers	\$6.03
Grade 2 rates are payable to inexperienced workers. After 500 accumulated hours or on completion of a harvesting season of four months, the worker shall be automatically regraded to Grade 1. However, nothing in this definition will prevent a worker being regarded prior to this time	\$5.62
Grade 1 rates are paid to experienced workers who have fulfilled the conditions for Grade 2	\$5.76
Junior workers shall be paid the following percentages of the adult workers' appropriate hourly wage specified above:	

	Grade 2 Per Hour	Grade 1 Per Hour
Under 16 years of age, 60 percent	\$3.37	\$3.45
16 years of age and under 17 years, 70 percent	\$3.94	\$4.03
17 years of age and under 18 years, 80 percent	\$4.49	\$4.61
18 years of age and under 19 years, 90 percent	\$5.06	\$5.18

### 2.26.6 New Zealand Nursery, Landscape, Garden Centres, Grounds and Other Related Horticultural Workers - Award (as from 17/6/87)

#### Sector A

The propagation, cultivation and maintenance of outdoor trees and shrubs for sale:

Minimum rates of wages.	<u>Per Week</u>
Horticultural technician	\$327.42
Journeyperson	\$313.51
Senior propagator	\$313.51
Propagator	\$294.25
Nursery worker	\$294.25
Packer/despatcher	\$294.25

Propagator's assistant .	\$267.50
Nursery worker's assistant	\$267.50
Packer/despacher's assistant	\$267.50
Packing labourer/labourer .	\$253.02

### **Sector B**

Landscape, design, construction, maintenance, general gardening and related services:

Horticultural technician	\$327.42
Journey person	\$313.51
Landscape designer	\$313.51
Senior landscape construction worker	\$313.51
Landscape designer's assistant	\$294.25
Landscape construction worker	\$294.25
Landscape and gardening maintenance worker	\$294.25
Landscape construction worker's assistant	\$267.50
Landscape and gardening maintenance workers assistant	\$267.50
Labourer	\$253.05

### **Sector C**

Propagation, cultivation and maintenance of decorative indoor plant and/or the growing of bedding, border and/or specialist general lines for sale:

Horticultural technician	\$327.42
Journey person	\$313.50
Senior propagator	\$313.50
Propagator	\$294.25
Propagator's assistant	\$267.50
Nursery worker	\$294.25
Packer/despacher	\$294.25
Nursery worker's assistant	\$267.50
Packer/despacher's assistant	\$267.50
Labourer	\$253.05

### **Sector D**

The cultivation, maintenance and servicing of ornamental plants used for hire:

Horticultural technician	\$327.42
Hire plant advisor and/or journey person	\$313.51
Hire plant operative	\$294.25
Hire plant operative's assistant	\$267.50
Labourer	\$253.05

## Sector E

Consumer sales of plants and related horticultural products and services:

Garden and technical advisor/technician	\$327.42
Senior garden advisor/journeyperson	\$313.51
Garden centre advisor	\$294.25
Garden centre assistant	\$267.50
Labourer	\$253.05

## Sector F

The maintenance and servicing of school, recreational sports, camping, institutional or other grounds:

Horticultural technician	\$327.42
Journeyperson/grounds worker	\$131.51
Grounds worker's assistant	\$294.25

Extra rates for Qualifications Held.

A nurseryman or gardener holding a trade certificate in Horticulture or Gardening shall be paid 32 cents extra per hour.

Workers who have completed their apprenticeship in Horticulture and gardening shall be paid an additional 30 cents per hour.

Extra rates for the holder of certificates issued under the R.N.Z.I.H. Act 1953 are:

	<u>Per Week</u>
Junior	\$5.35
Intermediate or National Certificate	\$10.05
Full Diploma	\$16.05

Holders of the Diploma of Horticulture (Massey or Lincoln) shall be paid an extra \$6.42 per week.

Service allowances

For continuous service with the same employer exceeding:

	<u>Per Week</u>
One year	\$ 5.35
Two years	\$10.70
Four years	\$16.05
Ten years	\$21.40

**2.26.7 New Zealand Bowling Clubs' and other Sports Bodies  
Green-Keepers. (As at 19/12/86)**

Head greenkeepers and head groundsmen employed by clubs, or other sports bodies which have more than one bowling green, tennis court, croquet lawn or other playing area in use, and sole greenkeepers or groundsmen employed by any such club. \$288.90

Sole greenkeepers employed by bowling clubs which have only one green. \$272.38

Other greenkeepers or groundsmen. \$262.58

Continuous service with same club

One year \$5.40 per week additional

Two years \$5.40 per week additional

Three years \$5.40 per week additional

Greenkeeper holding New Zealand Certificate of Proficiency in Turf Culture (Lawn Bowling Green) or the New Zealand Diploma in Turf Culture shall be paid an additional \$11.41/week.

Casual or part-time employees shall be paid \$6.57/hour

Casual or part-time sole greenkeepers shall be paid \$7.22/hour

**2.26.8 Wages of Management**

For Lincoln College purposes, Wages of Management (W.O.M.) should be based on a married man's salary plus 4% 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 \$14,500-16,500

Factory Supply Dairy \$12,300-15,500

Sheep and Mixed Cropping \$12,000-15,500

Generally within the range \$13,000-\$17,000 depending on experience.

## 2.27 CONTRACTING CHARGES

### **2.27.1 Contract 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 bogging, standing time for trucks and labour.

Surcharge of 20% for work on hill country.

### **2.27.2 Baling**

Standard Bales: 81c/bale Half Tonne Bales \$11.43/bale  
Collecting: 6c/bale (standard bales)

Surcharge of 20% for work on hill country.

### **2.27.3 Windrowing**

\$54.50 per hectare - above 100 mm \$56.60 with conditioner  
\$56.50 per hectare - under 100 mm \$58.60 with conditioner

### **2.27.4 Silage**

Charged in several different ways depending on contractor.

One Canterbury contractor charges \$60 per truck load (3 to 6 tonnes).  
Average is 4 tonnes per load ie \$15 per tonne.  
Mowing is not included.

## 2.27.5 Hiring rates for farm equipment.

New Zealand Contractors Federation

### Wheeled Tractors

<u>P.T.O. Power kW</u>	<u>P.T.O. (H.P.)</u>	<u>Hourly Rate</u>
Up to 21	(Up to 29)	\$39.50
22 - 30	( 30 - 40)	\$42.50
31 - 37	( 41 - 49)	\$44.50
38 - 44	( 50 - 59)	\$49.00
45 - 51	( 60 - 69)	\$52.50
52 - 58	( 70 - 79)	\$57.00
59 - 64	( 80 - 84)	\$65.50
65 - 74	( 96 - 99)	\$70.50
75 - 88	(100 - 119)	\$81.50
89 - 103	(120 - 140)	\$89.00
104 - 120	(141 - 160)	\$101.00

### 4 Wheel Drive Tractors

Up to 15	(Up to 20)	\$36.00
16 - 21	( 21 - 29)	\$39.00
22 - 30	( 30 - 40)	\$43.00
31 - 37	( 41 - 50)	\$47.00
38 - 44	( 51 - 60)	\$50.00
45 - 51	( 61 - 69)	\$54.00
52 - 58	( 70 - 79)	\$58.00
59 - 64	( 80 - 85)	\$65.00
65 - 74	( 86 - 99)	\$72.00
75 - 88	(100 - 119)	\$87.00
89 - 103	(120 - 139)	\$87.50
104 - 120	(140 - 159)	\$94.50
121 - 133	(161 - 190)	\$102.50
134 - 170	(191 - 230)	\$133.00
171 - 190	(231 - 253)	\$136.50

### Track Machines

30 - 37	( 40 - 55)	\$45.00
38 - 50	( 56 - 66)	\$55.00
Over 50	(Over 66)	\$69.00

### Sickle mowers

\$ 8.30

### Disc mowers

\$13.45

### Hay rakes

\$ 7.40

### Hay tedder

\$10.80

### Haybalers - Conventional

\$69.00-\$75.00

- 1/2 tonne square

\$88.00

- 1/2 tonne round

\$91.00-\$117.00

Plus twine and appropriate tractor rate.

Prices Exclude GST

2-176



<u>Windrowers</u>		\$110
<u>Forage Harvesters</u> -	Double chop	\$13.50
	Fine chop	\$13.50
	Precision chop	\$32.00-\$67.00
	Self propelled	\$192.00-\$314.00
<u>Combine Harvesters</u>	74-86hp	\$168.00
	99-115hp	\$208.50
	117-125hp	\$253.00
	148-210hp	\$336.00
	275hp	\$385.00

### 2.27.6 Sheep Dipping

Average approximately 28 to 30 cent per head but varies greatly between contractors depending and may be as high as 40c per head where contractor supplies all material and labour.

### 2.27.7 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 2.26.3)

Shearing open	Full Wool.	Machine per 100	\$90.50
		Blades per 100	\$103.00
	Bellied /100		\$84.50
	Cover lamb /100		\$92.00
	Crutching /100		\$32.00
	Dagging /100		\$27.00
	Belly crutching /100		\$39.00
	1/2 belly crutching /100		\$38.00
	Eye wiggig Extra per 100		\$ 1.00
Classing rate/100			\$22.00
Shedhand rate/hour			\$ 9.50
Presser rate/hour			\$12.50
Contract shearing /100		Machines	\$160.00
		Blades	\$185.00

### 2.27.8 Ground Spreading of Fertiliser and Lime

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>
2500	20.0	\$ 6.93
1875	15.0	\$ 8.91
1250	10.0	\$10.01
1125	9.0	\$12.90
1000	8.0	\$12.90
875	7.0	\$13.50
750	6.0	\$13.50

625	5.0	\$17.93
500	4.0	\$17.93
375	3.0	\$18.97
300	2.5	\$20.50
250	2.0	\$22.30
200	1.5	\$24.00
125	1.0	\$27.50

### 2.27.9 Aerial Spreading of Fertiliser

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.

One North Canterbury firm estimates that for average conditions in that area, 4 tonnes of Superphosphate on the ground, would cost \$1000 (this includes cost of fertiliser and ground transport to topdressing strip).

This works out at \$250 per tonne (of which the actual aerial spreading would be approximately \$35).

#### THE HELICOPTER LINE

##### Nitrogen Application on Crops

kg/Ha	up to						over
	10 ha	15 ha	20 ha	25 ha	30 ha	30 ha	
75 - 125	\$31.00	\$30.00	\$29.50	\$29.00	\$28.50	\$28.00	
130 - 180	\$33.50	\$32.50	\$32.00	\$31.50	\$31.00	\$30.50	
190 - 240	\$36.00	\$35.00	\$34.00	\$33.00	\$32.00	\$31.00	
250 - 300	\$38.50	\$37.00	\$36.00	\$35.00	\$34.00	\$33.00	

To qualify for discounts all work should be within a 1.5 km radius of loading point or at pilots discretion. Minimum price for one off jobs is \$150.

### 2.27.10 Aerial Spraying

#### THE HELICOPTER LINE

##### Crop Spraying (40 to 60 litres per ha)

0 - 10 ha	per ha	\$30.00
10 - 15 ha	per ha	\$29.00
16 - 20 ha	per ha	\$28.50
21 - 25 ha	per ha	\$28.00
26 - 30 ha	per ha	\$27.50
Over 30 ha		\$27.00

### Brushweed Spraying

400 - 440 l/ha	double pass	\$140-\$200 per ha
200 - 220 l/ha	double pass	\$ 85-\$120 per ha
200 - 220 l/ha	single pass	\$ 80-\$100 per ha
100 - 110 l/ha	single pass	\$ 45-\$ 70 per ha

### HELICOPTERS (NZ LTD)

#### Application rate:

110 litres	= \$ 48/ha
220 litres	= \$ 96/ha
330 litres	= \$138/ha
440 litres	= \$168/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	\$810/hour
AS350B Squirrel	\$890/hour
SA315B Lama	\$990/hour

#### **2.27.11 Contract Spraying**

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

In the region of \$13.00 to \$18.00 per ha.

#### **2.27.12 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.
Drilling	\$49.07 per hectare
Direct Drilling	\$62.25 per hectare

## 2.28 SELLING CHARGES

### 2.28.1 Yard Fees

Usually on a per head basis and vary 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	.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	.84

### 2.28.2 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 - P/bred, G1	8.50%	Motorised plant	10.00%
- G2 to Feral	5.50%	Dogs	7.50%

### 2.28.3 Wool Charges

An approximation of total wool charges on crossbred wool being put through the wool store auction system is 40 to 50 cents per kg (greasy).(This includes the Wool Board Levy - below)

N.Z.Wool Board Levy on Sale Proceeds:

6% of the total wool cheque (not including slipe wool)  
(private sale are levied on the transaction price)

### 2.28.4 Killing Charges

Works' schedules normally net of killing charges and levies so use net figures for budgeting purposes.

**SECTION 3**

**LIVESTOCK AND CROPPING  
GROSS MARGINS**

**ENTERPRISE ANALYSIS**

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### **3. LIVESTOCK AND CROPPING GROSS MARGINS ENTERPRISE ANALYSIS**

#### **3.1 INTRODUCTION**

##### **General:**

The gross margins included in this manual relate, where possible, to the "real farm situation" as at December 1987 (deer- October 1987). Cost, price and yield estimates are based largely on Canterbury figures. The sheep gross margins have been presented in full detail; the rest are in simplified form. Regrettably, horticultural gross margins and cash flows could not be included this year, due to a change over of College staff.

##### **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 cultivation 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 yield and cost estimates 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:**

The tables accompanying each gross margin show how the profitability of the enterprise will differ if different yields, prices etc. are

used in the analysis. The central, boxed, figure in each 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 livestock and cropping 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.

## 3.2 LIVESTOCK GROSS MARGINS

Prices and costs used are those ruling at December 1987, apart from the deer gross margin, October 1987.

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.

### 3.2.1 Sheep - Breeding ewe flock

#### SHEEP GROSS MARGIN

Corriedale Ewe Flock, Breeding Own  
Replacements.

#### Capital Stock Wintered:

	No.	Total	S.U.	Total S.U.
Breeding Ewes	750 @ \$25	= \$18750	1.0	750
2 th Ewes	250 @ \$30	= \$ 7500	1.0	250
Ewe Hoggets	376 @ \$24	= \$ 9024	0.7	263
Rams	20 @ \$50	= \$ 1000	0.8	16
	<u>1396</u>	<u>\$36274</u>		<u>1279</u>

Dollar Investment in sheep per stock unit = \$28.36



## Production Parameters:

Lambing 93% survival to sale.  
4% Death rate.  
20% Hogget/2th culling.  
80% Wether lambs sold prime.  
25% 2th enter flock each year.  
Sell genuine 5 year old ewes.  
Ewes and hoggets clip 4.1 kg wool; lambs not shorn.

## Income:

372 prime wether lambs	at \$20 =	\$ 7440
182 store m.s. lambs	at \$11 =	\$ 2002
111 cull hogget/2ths	at \$25 =	\$ 2775
160 5 year old ewes	at \$18 =	\$ 2880
50 cull ewes to works	at \$10 =	\$ 500
5620 kg wool	at \$4.00(net) =	\$22480

TOTAL INCOME

\$38077

## Expenditure:

### Shearing -

Shear 1000 sheep @ \$90.50/100=	\$ 905	
Shear 370 hoggets @ \$90.50/100=	\$ 335	
Tup crutch 1010 ewes @ \$32.00/100=	\$ 323	
Main crutch 990 ewes @ \$38.00/100=	\$ 376	\$ 1939

### Woolshed expenses -

Including shearing plant expenses and woolpacks approx. 40c/ewe and 27c/hogget	\$ 500
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### Animal Health -

Drench ewes pre-lamb 990 @ 26c	\$ 257	
Drench lambs 1880 doses @ 11c (replacements drenched 3 times, primes 1.5 times, stores once)	\$ 207	
Vaccinate ewes 990 @ 28 c/dose	\$ 277	
Vaccinate hgts 370 @ 28 c/dose	\$ 104	
Eartags, footrot and docking	\$ 400	
Dipping 1000 sheep @ 29c ea.	\$ 290	
500 lambs @ 29c ea.	\$ 145	\$ 1680
Cartage - (based on 100km travel)		
Prime lambs 372 @ \$1.91 ea.	\$ 711	
Store lambs 182 @ \$1.82 ea.	\$ 331	
Cull hgts/2th/5yr ewes 271 @ \$2.36 ea.	\$ 640	

Works ewes 50 @ \$2.93 ea.	\$ 147	
Wool 31 bales @ \$10.76/bale	\$ 334	\$ 2163
Selling Charges -		
Yard fees 453 sheep @ 0.43c ea.	\$ 195	
Commission on \$7657 @ 5.5%	\$ 421	\$ 616
Ram Purchase - landed 5 @ \$190 ea.		\$ 950
<b>TOTAL DIRECT COSTS</b>		<b>\$ 7848</b>
<b>TOTAL GROSS MARGIN (before interest)</b>		<b>\$30229</b>
<b>GROSS MARGIN per dollar invested in sheep</b>		<b>\$ 0.83</b>
<u><b>GROSS MARGIN per Stock Unit</b></u>		<u><b>\$ 23.63</b></u>

**Gross Margin per Stock Unit at Various  
Stock Sale and Wool Prices.**

		WOOL PRICE c/kg (net)		
		340c	400c	480c
<b>AVERAGE</b>				
<b>STOCK SALE</b>	<b>\$12.00</b>	\$17.01	\$19.65	\$23.16
<b>PRICE</b>	<b>\$17.80</b>	\$21.00	<b>\$23.63</b>	\$27.15
<b>\$/HEAD</b>	<b>\$26.00</b>	\$26.59	\$29.23	\$32.74

**Interest Cost:**

Interest on Capital Stock Value:	
\$36274 @ 20% per annum	\$7255
<b>RETURN per Stock Unit (after interest)</b>	<b>\$ 17.96</b>

### 3.2.2 Sheep - '2 year' Flock

#### SHEEP GROSS MARGIN

Corriedale '2 year' flock, replacement  
by purchase of 5 year old ewes annually

#### Capital Stock Wintered:

	No.		Total	S.U.	Total S.U.
Breeding Ewes	1000	@ \$22 =	\$22000	1.0	1000
Rams	16	@ \$50 =	\$ 800	0.8	13
	<u>1016</u>		<u>\$22800</u>		<u>1013</u>

Dollar Investment in Sheep per stock unit = \$22.51

#### 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 \$20 =	\$22000
527 cull ewes to works	at \$10 =	\$ 5270
3840 kg wool	at \$4 (net) =	\$15360

TOTAL INCOME

\$42630

#### Expenditure:

Replacement ewes 595 @ \$20		\$11900
Shearing -		
Shear 960 sheep @ \$90.50/100	= \$ 869	
Tup crutch 418 ewes @ \$32/100	= \$ 134	
Main crutch 965 ewes @ \$38/100	= \$ 367	\$ 1370
Wool Shed Expenses -		
Including shearing plant expenses and woolpacks approx. 40c/head		\$ 400
Animal Health -		
Drench ewes pre-lamb 980 @ 26c	= \$ 255	
Drench lambs 1100 x 1.5 @ 11c	= \$ 182	
Vaccinate ewes 980 @ 28c	= \$ 274	
Eartags, footrot and docking	= \$ 180	

Dipping - purchased ewes already dipped; 418 ewes @ 29c	= \$ 121	\$ 1012
Cartage - (based on 40km travel except for replacement ewes, at 80km)		
Prime lambs 1100 @ \$1.16	= \$1276	
Works ewes 527 @ \$1.58	= \$ 833	
Replacement ewes 595 @ \$2.57	= \$1529	
Wool 21 bales @ \$7.3	= \$ 154	\$ 3792
Ram Purchase - landed 4 @ \$190		\$ 760
<b>TOTAL DIRECT COSTS</b>		<b>\$19234</b>
<b>TOTAL GROSS MARGIN (before interest)</b>		<b>\$23396</b>
<b>GROSS MARGIN per dollar invested in sheep</b>		<b>\$1.03</b>
<u><b>GROSS MARGIN per Stock Unit</b></u>		<u><b>\$23.10</b></u>

**Gross margin per Stock Unit at  
various lamb and wool prices:**

		WOOL PRICE c/kg		
		340c	400c	480c
<b>LAMB</b>	<b>\$16</b>	\$16.48	\$18.75	\$21.78
<b>PRICE</b>	<b>\$20</b>	\$20.82	<b>\$23.10</b>	\$26.12
<b>\$/HEAD</b>	<b>\$25</b>	\$26.25	\$29.53	\$31.56

**Interest Cost:**

Interest on Capital Stock Value: \$22800 @ 20% per annum	\$ 4560
<b>RETURN per Stock Unit (after interest)</b>	<b>\$18.59</b>

### 3.2.3 Beef

#### BEEF GROSS MARGIN Breeding Cow Herd, Selling Steers and Surplus Heifers at approx. 18 months.

##### Capital Stock Wintered:

	No.	Total	S.U.	Total S.U.
Breeding Cows	82 @ \$430 =	\$35260	6	492
I.C. R2yr Heifers	18 @ \$370 =	\$ 6660	6	108
R1yr Heifers	43 @ \$220 =	\$ 9460	3.5	151
R1yr Steers	43 @ \$300 =	\$12900	4	172
Breeding Bulls	3 @ \$750 =	\$ 2250	5.5	17
	<u>189</u>	<u>\$66530</u>		<u>940</u>

Dollar Investment in Cattle per stock unit = \$70.78

##### 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:

66 m.s. 18 month cattle	at \$400(net) =	\$26400
15 cull cows	at \$330(net) =	\$ 4950
1 bull	at \$600(net) =	\$ 600

TOTAL INCOME \$31950

##### Expenditure:

###### Animal Health-

Drench calves(86)- 2 liquid	\$351	
- 1 injection	\$224	
Pregnancy test- 100cows @ \$2	\$200	\$ 775

Bull purchase - landed \$1200

Freight and commission (stock net on farm) \$ 0

TOTAL DIRECT COSTS \$1975

TOTAL GROSS MARGIN (before feed costs and interest) \$29975

GROSS MARGIN per dollar invested in cattle \$ 0.45

GROSS MARGIN per Stock Unit \$31.89

**Gross Margin per Stock Unit at various weaning percentages and selling prices (18 month cattle):**

		SALE PRICE \$/HEAD		
		\$350	\$400	\$480
<b>%</b>	<b>80%</b>	\$26.83	\$30.10	\$35.33
<b>WEANED</b>	<b>86%</b>	\$28.38	<b>\$31.89</b>	\$37.51
	<b>94%</b>	\$30.28	\$34.09	\$40.20

**Interest and Feed Costs:**

Interest on Capital Stock Value:

\$66530 @ 20% per annum \$13306

Feed - Buy in additional hay

700 bales @ \$2.50 \$ 1750 \$15056

RETURN per stock unit (after interest and feed) \$ 15.87

### 3.2.4 Dairy

#### DAIRY GROSS MARGIN

Factory Supply Herd

#### Capital Stock Wintered:

	No.	Total	S.U.	Total S.U.
Milking Cows	116 @ \$500 =	\$58000	8.0	928
Milking Heifers	34 @ \$400 =	\$13600	6.5	221
R 1yr Heifers	36 @ \$220 =	\$ 7920	4.0	144
	<u>186</u>	<u>\$79520</u>		<u>1293</u>

Dollar Investment in Cattle per Stock Unit = \$61.50

#### 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 @ \$3.50/kg	=	\$78750
26 Cull cows @ \$260(net)	=	\$ 6760
97 m.s. calves @ \$60(net)	=	\$ 5820

TOTAL INCOME

\$91330

#### Expenditure:

Animal Health @ \$22 /cow (i.e. bloat,magnesium,mastitis,vet. etc)		\$ 3300
Artificial Breeding -		
Semen @ \$6.50 /cow	\$ 975	
Insemination -		
100 cows @ \$5.49 x 1.3 insemin.	\$ 714	
50 cows @ \$4.39 x 1.3 insemin.	\$ 285	\$1974
Herd Testing(Self Sample,8 weekly)		
Herd fee	\$ 218	
150 cows @ \$9.05	\$1358	\$1576
Shed Expenses @ \$11.00 per cow (i.e.detergent, rubberware, filters etc)		\$1650
Electricity @ \$15 /cow		\$2250

TOTAL DIRECT COSTS	\$10750
TOTAL GROSS MARGIN (before feed costs and interest)	\$80580
GROSS MARGIN per dollar invested in cattle	\$1.01
<u>GROSS MARGIN per Stock Unit</u>	<u>\$62.32</u>

**Gross Margin per Stock Unit at various milkfat production levels and milkfat prices:**

		MILKFAT PRICE c/kg		
		320c	350c	400c
kg	130kg	\$49.67	\$54.55	\$61.74
MILKFAT	150kg	\$57.10	\$62.32	\$71.02
PER COW	180kg	\$68.24	\$74.50	\$84.94

**Interest and Feed costs:**

Interest on Capital Stock Value:		
\$79520 @ 20% per annum	\$15904	
Feed - Buy in 30% of total requirement (i.e. grazing off, hay etc) @ \$30 /cow	\$ 4500	\$20404
RETURN per Stock Unit (after interest and feed)		\$46.54



### 3.2.5 Deer

### DEER GROSS MARGIN

All Stag Policy - Buy in  
weaners and kill at 18months.  
(as at October 1987)

#### Capital Stock Wintered:

	<u>No.</u>		<u>Total</u>	<u>S.U.</u>	<u>Total S.U.</u>
Weaner Stags (Red Deer)	100 @	\$200	= \$20000	1.4	140

Dollar Investment in Deer per Stock Unit = \$142.86

#### Production Parameters:

Death Rate 3%  
60 kg Carcase Weight at Slaughter(18 months)

#### Income:

97 Stags 60 kg @ \$5.50/kg \$32010

#### Expenditure:

Purchase Weaner Stags 100 @ \$180	= \$18000
Animal Health @ \$10/head	= \$ 1000
Freight 100 @ \$6/head	= \$600
97 @ \$9/head	= \$873      \$ 1473

TOTAL DIRECT COSTS \$20473

TOTAL GROSS MARGIN (before feed costs and interest) \$11537

GROSS MARGIN per dollar invested in deer \$ 0.58

GROSS MARGIN per Stock Unit \$ 82.41

#### Gross Margin per Stock Unit at various weaner purchase prices and venison schedule prices.

		VENISON SCHEDULE c/kg		
		500c	550c	625c
WEANER				
PURCHASE	\$170	\$ 68.76	\$ 89.55	\$120.73
PRICE	\$180	\$ 61.62	\$ 82.41	\$113.59
\$/HEAD	\$200	\$ 47.34	\$ 68.12	\$ 99.30

**Interest and Feed Costs:**

Interest on Capital Stock Value:		
\$20000 @ 20% per annum	\$4000	
Winter Feed - Buy in hay and concentrates @ \$10/head	\$1000	\$5000
RETURN per Stock Unit (after interest and feed)		\$46.69

### 3.2.6 Goats

#### GOAT GROSS MARGIN

Cashgora Production from  
Cross-bred Angora Flock.

#### Capital Stock Wintered:

	No.		Total	S.U.	Total S.U.
Does	150	@ \$ 35	= \$5250	0.75	113
Mated Hoggets	50	@ \$ 30	= \$1500	0.75	38
Bucks	3	@ \$500	= \$1500	0.70	2
	<u>203</u>		<u>\$8250</u>		<u>153</u>

Dollar Investment in Goats per Stock Unit = \$53.92

#### Production Parameters:

Kidding - Does 150% survival to sale.

- Hoggets 100%

Death Rate 4%

'Cashgora type' not yet stabilised, consequently fibre grade and yield per head is variable. Assume fibre sales average \$20/head/year, net of freight and handling etc.

#### Income:

Fibre - 203 head @ \$20/head (net)	=	\$4060
137 wether kids at \$12 (net)	=	\$1644
88 doe kids at \$25 (net)	=	\$2200
42 cull does at \$25 (net)	=	\$1050

TOTAL INCOME \$ 8954

#### Expenditure:

Shearing -		
Pre-kid - 200 head @ \$1.25	\$250	
February - 250 head @ \$1.25	\$313	\$563
Animal Health - \$2 per doe (i.e. drench, dip, vaccination, minerals etc)		\$400
Buck Purchase - landed		\$800

TOTAL DIRECT COSTS \$ 1763

TOTAL GROSS MARGIN (before feed costs and interest) \$ 7191

GROSS MARGIN per dollar invested in goats \$ 0.87

GROSS MARGIN per Stock Unit \$47.00

**Gross Margin per Stock Unit at  
various fibre and stock prices.**

		AVERAGE STOCK SALE PRICE/HEAD		
		\$15.00	\$18.33	\$50.00
FIBRE	\$15	\$34.55	\$40.37	\$95.63
INCOME	\$20	\$41.19	\$47.00	\$102.27
/HEAD	\$30	\$54.46	\$60.26	\$115.54

**Interest and feed costs:**

Interest on Capital Stock Value:

\$8250 @ 20% per annum \$1650

Feed -

Buy in hay and grain at \$2/head \$ 406 \$2056

RETURN per Stock Unit (after interest and feed) \$33.56

### 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.

(Information provided by J. Lay, Senior Lecturer in Farm Management, Lincoln College, December 1987)

#### 3.3.1 Wheat

##### WHEAT GROSS MARGIN

Winter wheat (Kotare)

##### Income:

5 tonnes/ha @ \$200/tonne (90 Index, delivered)	\$1000
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##### Expenditure(per hectare):

Cultivation -

60 KW tractor - 3.5 hours @ \$12.60/hour (Fuel \$10.60/hr; R&M \$2/hr)	\$ 44
---	-------

Seed - 120 kg/ha @ \$714/tonne	\$ 86
--------------------------------	-------

Fertilizer - Urea 125 kg/ha @ \$400/tonne	\$ 50
---	-------

Weed, Pest and Disease -

Avadex: 5 l/ha @ \$16.91/litre	\$ 85
--------------------------------	-------

Application (contract)	\$ 14
------------------------	-------

Glean : 20g/ha @ \$1.40/gm	\$ 28
----------------------------	-------

Application (contract)	\$ 14
------------------------	-------

Tilt (twice): 0.5 l/ha @ \$94/l	\$ 94
---------------------------------	-------

Application (twice)	\$ 28	\$263
---------------------	-------	-------

Irrigation - 50mm application	\$ 15
-------------------------------	-------

(Electricity \$11.40; R&M \$3.60)

Harvest - 5 tonnes @ \$42/tonne	\$210
---------------------------------	-------

(in silo; contract)

Freight - 5 tonnes @ \$16/tonne	\$ 80
---------------------------------	-------

(silo to port)

TOTAL DIRECT COSTS

\$ 748

**Gross Margin per Hectare at various  
selling prices and yields.**

		YIELD Tonnes/ha		
		3.5t	5.0t	7.0t
<b>PRICE</b>	<b>\$180</b>	\$ -31	\$ 152	\$ 396
<b>PER</b>	<b>\$200</b>	\$ 39	<b>\$ 252</b>	\$ 536
<b>TONNE</b>	<b>\$230</b>	\$ 144	\$ 402	\$ 746

### 3.3.2 Barley

#### BARLEY GROSS MARGIN Spring Barley (Triumph; Malting)

**Income:**

5 Tonnes /ha @ \$170 /tonne \$ 850

**Expenditure(per hectare):**

Cultivation -

60 KW tractor - 3.5 hours @ \$12.60/hr \$ 44  
(Fuel \$10.60/hr; R&M \$2/hr)

Seed - 120 kg/ha @ \$490/tonne \$ 59

Fertiliser -

Superphos 125 kg/ha @ \$182/t \$ 23

Urea 125 kg/ha @ \$400/tonne \$ 50 \$ 73

Weed, Pest and Disease -

Glean : 20 g/ha @ \$1.40 /gm \$ 28

Application (contract) \$ 14

Tilt : 0.5 l/ha @ \$94 /litre \$ 47

Application \$ 14 \$103

Irrigation -

2 x 50mm application @ \$15/appl'n \$ 30  
(Elec. \$11.40; R&M \$3.60)

Harvest - 5 tonnes @ \$42 /tonne \$210  
(in silo; contract)

Freight - 5 tonnes @ \$16 /tonne \$ 80  
(silo to port)

**TOTAL DIRECT COSTS** \$ 599

**GROSS MARGIN per Hectare** \$ 251

#### Gross Margin per hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		4.0t	5.0t	7.0t
<b>PRICE</b>	<b>\$150</b>	\$ 59	\$151	\$335
<b>PER</b>	<b>\$170</b>	\$139	\$251	\$489
<b>TONNE</b>	<b>\$200</b>	\$259	\$401	\$685

### 3.3.3 White Clover

#### WHITE CLOVER GROSS MARGIN

Huia, under-sown wheat.

#### Income:

350 kg(M.D.)/ha @ \$2.25 /kg \$ 788

#### Expenditure(per hectare):

Cultivation - nil (undersown wheat)		\$ 0
Seed - 3 kg/ha @ \$4.50 /kg		\$ 14
Fertiliser - Super 125 kg/ha @ \$182/t		\$ 23
Weed, Pest and Disease -		
2,4,D Ester 4.5 l/ha @ \$8.25/litre	\$ 37	
Carbetamex 3.5 kg/ha @ \$30.71/kg	\$107	
Application (combined; contract)	\$ 14	
Nexion 1 l/ha @ \$18.41 /litre	\$ 18	
Application	\$ 14	\$190
Irrigation -		
3 x 50mm application @ \$15		\$ 45
(Elec. \$11.40; R&M \$3.60)		
Harvest(contract) - 0.9 hrs/ha @ \$200		\$180
Freight - 500 kg (FD) @ \$16 /tonne		\$ 8
Seed Dressing - 500 kg @ 30c /kg		\$150

TOTAL DIRECT COSTS \$ 610

GROSS MARGIN per Hectare \$ 178

**Gross margin per Hectare at various selling prices and yields.**

		YIELD kg(MD)/Hectare		
		200kg	350kg	700kg
PRICE c/kg	200c	\$-142	\$ 90	\$632
	225c	\$-92	\$ 178	\$807
	300c	\$ 58	\$ 440	\$1332



### 3.3.4 Ryegrass RYEGRASS GROSS MARGIN

(Nui)

#### Income:

850 kg(MD)/ha @ \$1.20 /kg	\$1020
Straw (in paddock) 100 bales/ha @ \$0.70	\$ 70

#### TOTAL INCOME

\$1090

#### Expenditure(per hectare):

##### Cultivation -

60 KW tractor - 3.5 hrs @ \$12.60/hr	\$ 44
(Fuel \$10.60/hr; R&M \$2/hr)	

Seed - 22 kg/ha @ \$2.70 /kg	\$ 59
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##### Fertiliser -

Superphos. 125 kg/ha @ \$182/t	\$23	
Urea 185 kg/ha @ \$400/t	\$74	\$ 97

##### Weed, Pest and Disease -

Avenge : 5 l/ha @ \$15.80/litre	\$79	
Application (contract)	\$14	
MCPA : 3 l/ha @ \$5 /litre	\$15	
Application	\$14	
Tilt : 0.5 l/ha @ \$94/litre	\$47	
Application	\$14	\$183

##### Irrigation -

2 x 50mm application @ \$15 /appl'n	\$ 30
(Elec. \$11.40; R&M \$3.60)	

##### Harvest -

Windrow(contract) @ \$57 /ha	\$ 57	
Header(contract) 0.63 hrs/ha		
@ \$200/hr	\$126	\$183

Freight - 1 Tonne(FD) @ \$16	\$ 16
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Seed Dressing - 1000 kg @ 12c /kg	\$120
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#### TOTAL DIRECT COSTS

\$ 732

#### GROSS MARGIN per Hectare

\$ 358

#### Gross Margin per Hectare at various selling prices and yields.

		YIELD kg/ha (MD)		
		600kg	850kg	1200kg
PRICE c/kg	100c	\$ -23	\$ 188	\$ 482
	120c	\$ 97	\$ 358	\$ 722
	150c	\$ 277	\$ 613	\$1082

### 3.3.5 Field Peas

#### FIELD PEAS GROSS MARGIN

('Blue')

#### Income:

3 Tonnes /ha @ \$280 /tonne (contract price)	\$ 840
Peavine (in paddock) 60 bales/ha @ \$1.20	\$ 72
<b>TOTAL INCOME</b>	<b>\$ 912</b>

#### Expenditure(per hectare):

Cultivation -		
60 KW tractor - 3.5 hrs @ \$12.60/hr (Fuel \$10.60; R&M \$2/hr)	\$ 44	
Seed - 290 kg/ha @ \$620/tonne	\$180	
Fertilizer -		
Cropmaster15 125 kg/ha @ \$387/t	\$ 48	
Weed, Pest and Disease -		
Treflan : 2 l/ha @ \$13/litre	\$26	
Application (contract)	\$14	
MCPB : 5 l/ha @ \$7.27/litre	\$36	
Application	\$14	\$ 90
Irrigation -		
2 x 50mm application @ \$15 (Elec. \$11.40; R&M \$3.60)	\$ 30	
Harvest - 3 tonnes/ha @ \$55/tonne (in silo; contract)	\$165	
Freight - 3 tonnes at \$16/tonne	\$ 48	
<b>TOTAL DIRECT COSTS</b>		<b>\$ 605</b>
<u>GROSS MARGIN per Hectare</u>		<u>\$ 307</u>

#### Gross Margin per Hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		2t	3t	5t
PRICE	\$210	\$ -42	\$ 97	\$ 375
PER	\$280	\$ 98	\$ 307	\$ 725
TONNE	\$300	\$ 138	\$ 367	\$ 825

### 3.3.6 Vining Peas

#### VINING PEA GROSS MARGIN

##### Income:

5 tonnes /ha @ \$200 /tonne \$1000  
 (plus possible return from grazing vine residue)

##### Expenditure(per hectare):

##### Cultivation -

60 KW tractor - 3.5 hrs @ \$12.60 /hr \$ 44

(Fuel \$10.60; R&M \$2/hr)

Seed - 290 kg/ha @ 89.4c/kg \$259

##### Fertilizer -

Cropmaster15 125 kg/ha @ \$387/t \$ 48

##### Weed, Pest and Disease -

Bladex : 2.5 kg/ha @ \$13.53/kg \$34

MCPB : 2 l/ha @ \$7.27/litre \$15

Application(combined; contract) \$14 \$ 63

##### Irrigation -

3 x 50mm application @ \$15/appl'n \$ 45

(Elec. \$11.40; R&M \$3.60)

Harvest - Purchaser of peas \$ 0

Freight - " " " \$ 0

TOTAL DIRECT COSTS \$ 459

GROSS MARGIN per Hectare \$ 541

**Gross Margin per Hectare at various changes  
 in yield. (Assume pea quality is constant  
 i.e. \$200 contract price per tonne)**

YIELD Tonnes/Hectare		
3t	5t	7t
\$ 141	\$ 541	\$ 941

### 3.3.7 Oilseed Rape

#### OILSEED RAPE GROSS MARGIN

(Marnoo)

#### Income:

2.25 Tonnes /ha @ \$320 /tonne \$ 720

#### Expenditure(per hectare):

##### Cultivation -

60 KW tractor - 3.5 hrs @ \$12.60/hr \$ 44  
 (Fuel \$10.60; R&M \$2/hr)

Seed - 5 kg /ha @ \$2.20 /kg \$ 11

Fertiliser - Urea 125 kg/ha @ \$400/tonne \$ 50

##### Weed, Pest and disease -

Treflan 3 l/ha @ \$ 13 /l \$ 39

Application (contract) \$ 14

Thimet 5 kg/ha @ \$6.20/kg \$ 31

(with seed)

Pirimor 0.25 kg/ha @ \$45.35/kg \$ 11

Application (aerial) \$ 30 \$125

##### Irrigation -

3 x 50mm application @ \$15 \$ 45

(Elec. \$11.40; R&M \$3.60)

##### Harvest -

Windrow (contract) @ \$57/ha \$ 57

Header (contract) 0.5hrs/ha

@ \$200/hr \$100 \$157

Freight - 2.25 Tonnes @ \$16/tonne \$ 36

**TOTAL DIRECT COSTS** **\$ 468**

**GROSS MARGIN per Hectare** **\$ 252**

#### Gross Margin per Hectare at various selling prices and yields.

		YIELD Tonnes/ha		
		1.25t	2.25t	3.75t
PRICE	\$275	\$-108	\$ 151	\$ 539
PER	\$320	\$ -52	\$ 252	\$ 708
TONNE	\$400	\$ 48	\$ 432	\$1008

**SECTION 4**

**INCOME TAXATION**

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At the time of writing, there are a number of proposed 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. These proposals are separately annotated.

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.

## 4. INCOME TAXATION

### **4.1 Introduction**

The law relating to income tax in New Zealand is detailed in the Income Tax Act 1976, 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, the Inland Revenue Department, your accountant, or financial adviser should be consulted.

## 4.2 TAXATION IN NEW ZEALAND

### **4.2.1 Overview**

Income tax is collected throughout the income year by either the PAYE or Provisional tax systems. These monies are regarded as payments of tax for that year. 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 the results notified to the taxpayer - e.g. a refund of tax overpaid, or an assessment notice requiring more tax to be paid by a specified date, or confirmation of the amount of tax loss which can be carried forward. Where tax is to be paid, a due date will be specified. If this tax is not paid by due date, an additional 10% is charged as a penalty for late payment. For every six months that this tax remains unpaid, a further 10% ( of the total unpaid tax) is added.

Any taxpayer can object to his income tax assessment where the substance or accuracy is disputed. The requirement for objections are stipulated in the Income Tax Act and any person contemplating such action would be well advised to seek professional advice.

In broad terms, where an objection is made to an assessment, one half of the tax in dispute may be deferred until the final liability is determined. Tax that is not in dispute and the other half of the disputed tax is payable by the ordinary due date. Depending upon the outcome of the objection, interest may be payable upon the deferred tax by the Commissioner or by the taxpayer.

### **4.2.2 PAYE (Pay As You Earn) Tax on Personal Income**

The PAYE system is where source deductions of tax are made by the employer. The PAYE system applies to three types of payment:

**Salary and wages** - where the amount of tax depends on the amount of payment and tax code on the employee's IR 12 (Tax Code Declaration). For shearers and shedhands, PAYE tax is deducted at a flat rate of 25% and 20% respectively. For secondary employment, PAYE tax is deducted at a flat rate of 30%.

**Extra emoluments**, such as back pay or bonuses, where tax is deducted at a flat rate of 30%.

**Withholding payments**, which basically refer to casual payments where there is not a strict employer-employee relationship. Common types of payment and the appropriate tax rates are specified on the back on the "employee's" IR 13 (Withholding Payments Deduction Certificate) and include:

	%
Company directors' fees	35
Shearing work	15
Droving work	15
Farm work	15
Casual agricultural employees	15
Payments to suppliers of wild deer, pigs, goats (whole carcass or animal parts)	25
Honoraria	35

It should be noted that failure to provide an IR 13 to the employer will, in general, increase the rate of withholding tax deducted by 15 cents for every \$1.

The employer must pay the total tax deductions for a month to the Inland Revenue Department by the 20th of the following month. Annually the employer is required to complete the pay details on each IR 12 and IR 13, and to give the yellow (bottom) copy to the employee. The top copies together with a completed Annual Reconciliation Form, must be sent to the Inland Revenue Department by 31 May.

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 7 years.



### **4.2.3 Provisional Tax System**

Provisional tax is levied on all income which is not taxed as PAYE income, thus ensuring as far as possible, that all income is taxed in the year in which it is earned. The following would be regarded as provisional taxpayers:

- Individuals who derive business or professional income, e.g. farmers.
- Individuals who earn more than \$1,000 (\$3,000 for the 1989 income year) from net rents, interest and/or dividends (after deducting the \$200 exemption).
- Companies.
- Trusts.

Provisional tax is paid to the Inland Revenue Department by the taxpayer, and is generally based on the income tax paid on non-PAYE income earned in the previous year. Where last year's income is considered to be inappropriate, an estimated amount may be used instead. These amounts may be adjusted (re-estimated) as the year progresses, but it should be noted that a penalty may be imposed if there is gross underestimation.

Provisional tax is payable in three instalments, on the 7th day of the fourth, eighth and twelfth month of the taxpayer's income year. Refer Appendix I.

The situation may arise when the first instalment of provisional tax is payable before last year's return has been completed, and therefore last year's tax is not known. If the taxpayer has not estimated his provisional tax, the first instalment of tax is based on the last completed tax return (i.e. 2 years ago). The difference between last year's tax and the provisional tax already paid is the amount due as the remaining instalments.

### **4.2.4 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 such supporting information, accounts etc. as may be required. Annual returns relate to an income year ending 31 March unless an alternative balance date has been approved.

All companies, partnerships, trusts, and persons who are in business for any part of the income year must furnish returns of all their income, irrespective of whether a profit or a loss is made. Business accounts must be supplied.

A "pay-period taxpayer" does not have to file a tax return, in which case the PAYE tax already deducted is not adjusted. If a tax return is filed, the amount of tax payable is the lesser of the PAYE tax already deducted, or the tax assessed in the tax return.

A "pay-period taxpayer" is an employee who received salary and wages less than \$20000. 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 who receive other income in excess of \$6500, and others who would normally earn more than \$20000 but earned less than that because of some disruption e.g. retirement, death, disability etc.

Return forms are provided by the Inland Revenue Department as follows:

- IR 3 - Individual return for self-employed and persons with (net) investment income over \$1000.
- 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 \$1000 (\$3000 for the 1989 income year).
- 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.

#### **4.2.5 Assessment**

The return of income requires the taxpayer to calculate his actual tax liability and then deduct the tax already paid, as PAYE and/or provisional tax during the income year. The return of income (tax return) is checked by the Inland Revenue Department, who then notify the result 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. Refer to Appendix I.
3. No adjustment required.
4. Confirmation of the tax loss which can be carried forward to be offset against future income.

### 4.3 CALCULATING TAXABLE INCOME

Taxable income is calculated in the following way:

	Income from all sources
less	Exempt Income
less	Allowable deductions
	_____
=	Assessable Income
less	Special Exemptions
	_____
=	<b>TAXABLE INCOME</b>
	=====

**Income** is generally accepted to mean a gain in money or money's worth derived by a person as a reward for services rendered, the profits of a business or a profit-making enterprise, or from property.

**Exempt Income** is income specified by the Income Tax Act to be wholly exempt from tax.

**Allowable deductions** are items which can be deducted from income, e.g. business-related expenditures, depreciation, past years' losses, employment-related expenditure, etc.

**Special Exemptions** are specified types of expenditure which may be deducted from the assessable income of individuals. (See also the taxation of "Other" Trusts in section 4.7.)

**Taxable Income** is therefore the residue of assessable income after deducting the taxpayer's special exemptions.

## 4.4 TAXATION OF INDIVIDUALS

### 4.4.1 Overview

Individuals are required to file IR 5 or IR 3 returns (depending on their sources of income - see section 4.2.4 Returns of Income), and to pay tax at the rates specified by the Income Tax Act. These rates vary according to the level of income on the basis that the higher the income, the higher the marginal rate of tax. The rates of tax are detailed in Appendix II.

Taxable income is calculated as:

	Income
less	Deductions
	_____
=	Assessable Income
less	Special Exemptions
	_____
=	<b>TAXABLE INCOME</b>
	=====

Tax is calculated as:

	Tax (on Taxable Income)
less	Rebates and Adjustments
	_____
=	Tax Liability for year
less	Tax paid during year (PAYE/or Provisional Tax)
	_____
=	<b>FINAL ADJUSTMENT</b>
	=====

Income, excluding exempt income, can be reduced by the deductions allowed to salary and wage earners and/or by appropriate special exemptions in order to obtain the taxable income. Tax is assessed using the appropriate rates and the allowable tax rebates deducted to obtain the actual tax liability. Tax paid during the income year is then credited to ascertain whether more tax is payable (i.e. terminal tax), a refund is due for tax overpaid, or the assessment is correct.

### 4.4.2 Exempt Income

The following items, amongst others, may be applicable to individuals and regarded as exempt income:

1. 50% of interest from Farm Vendor Finance Bonds or from money left in approved farms as Farm Vendor Mortgages. Such interest does not qualify for the general interest exemption. N.B. No new farm vendor finance bonds or mortgages were approved after 8 November 1984.
2. Premiums on redemption of Inflation - Adjusted Savings Bonds.
3. Up to \$500 accumulated interest from Post Office National Development Bonds and/or New Zealand Savings Certificates. This interest does not qualify for the general interest exemption.
4. Up to \$200 interest and dividends.
5. Any educational scholarship or bursary.
6. Prize money from horse or dog racing, or trotting.
7. Prizes from Bonus Bonds.

It should be noted that gifts, legacies, capital gains and monies derived by chance, i.e. gambling, are not regarded as income unless it can be fairly said to be the taxpayer's business.

#### **4.4.3 Assessable Income**

Includes, amongst others:

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.

NB "Salary and wages" includes:

- Value of board, lodging and house allowances received
  - Payments on account of the employee
  - Pensions and superannuation from past employment
  - National superannuation (see below)
  - Income tested benefits.
  - Certain war pensions.
  - Earnings related Accident Compensation receipts.
3. National Superannuation receipts.  
National superannuitants will be subject to a special tax surcharge at the rate of 18% of income other than national superannuation and/or foreign social security pensions, in excess of a stated threshold. The actual amount of this threshold is determined by the rate and

circumstance in which national superannuation is received, but in general terms is \$13000 per household or \$7800 for a single superannuitant.

The amount of the tax surcharge is limited to the net amount of national superannuation payable to 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. Property refers to all personal property as well as land.
5. Revenues from land e.g. net rents received; profits from extraction, removal or sale of minerals, timber etc.
6. Royalties and know how payments.
7. Interests, dividends, annuities and pensions.  
(See also Exempt Income.)
8. All income - tested benefits (see paragraph 2 above).
9. Travelling allowances received by an employee will be taxable except those amounts which represent a reimbursement of:
  - Expenditure incurred by the employee in gaining or producing his assessable income: and/or
  - Additional transport costs incurred by the employee in travelling between home and his place of work. "Additional transport costs" are defined as the excess over travel costs where these have been incurred because of the time or day which the employee works, the necessity to carry work-related equipment, the fulfilling of any statutory obligation, a temporary change in the place of work, or any other condition of work applying to that employee, or the excess costs above \$1 per day incurred because of the absence of public transport serving the place of work. Except in special circumstances, the costs incurred in travelling more than 70 km per day must be excluded from this calculation.
10. Forgiveness of debt  
The amount of debt forgiven is regarded as assessable income in the hands of the person who owes the debt. Where the forgiving is by will prior to 1 October 1987, or is based on "natural love and affection", no income tax liability will result.

#### **4.4.4 Deduction for Employment Related Expenses**

Recipients of salary, wages and/or national superannuation, and casual agricultural employees, are permitted to deduct employment related expenses from this income. The allowable deduction is the greater of:

\$52 or 2% of employment income, whichever is the smaller; or

The actual amount of employment related expenditure or loss incurred in gaining assessable income. Details of the claim together with supporting evidence for payments in excess of \$20 should be included in the taxpayer's return of income. Allowable expenditures include:

- a. Union fees and subscriptions.
- b. Reference books, journals and periodicals.  
(Maximum of \$50 for any one volume or issue.)
- c. Special or protective clothing.
- d. Tools of trade and equipment.  
(Maximum of \$250 for any one item.)
- e. Self-education expenses where they relate to promotion; costs of attending refresher courses, conferences, or undertaking employment related research (including travel and accommodation). (Maximum of \$1,000 in any income year. The maximum cost for reference books, journals, periodicals, etc. is \$50 for any one volume or issue.)
- f. Travelling expenses incurred in the course of employment, but not between home and work. Travel expenses relating to refresher courses, conferences or research must be claimed under the clause above.
- g. Use of a private dwelling, where a room or defined area is set aside wholly or principally for employment related purposes. Allowable expenditures are limited to:
  - Repairs and maintenance of the room's interior;
  - Heating or lighting of that room;
  - Insurance on the contents of that room.
- h. Other expenditure incurred for purposes of, and as a condition of employment.

These expenses should be reduced by the amount of reimbursement received from the employer, if any, before any of the limits are applied.

#### **4.4.5 Special Exemptions**

Certain types of personal expenditures are allowed to be deducted from assessable income by way of special exemption, subject to a maximum amount. The allowable expenditures are:



1. Insurance premiums on:
  - Life insurance policies entered into prior to 9 November 1984.
  - Pension insurance.
  - Personal accident or sickness insurance.

Policies must be for the benefit of the taxpayer, spouse and/or children of the taxpayer.

2. Superannuation contributions to:
  - Approved superannuation schemes joined before 9 November 1984.
  - Employee pension schemes (whether subsidised or not).
  - Personal pension schemes.
  - Subsidised employee lump sum superannuation scheme.
  - Government Superannuation Fund.
  - Funds which provide benefits payable on personal accident, disease, sickness or expenses arising upon death.

Maximum amounts allowable are:

- Where the taxpayer is a member of the Government Superannuation fund or an employer-subsidised superannuation scheme, the special exemption is the lesser of the amounts paid, or \$1,200.
- For all other qualifying expenditures, the special exemption is the lesser of the amount paid or \$1,400.

Note: The Government's Economic Package of 17 December 1987 proposes to remove this concession.

#### **4.4.6 Personal Tax Rebates**

Rebates are deducted from the actual tax assessed, and give equal benefit to all taxpayers irrespective of their level of income. The total rebates claimed cannot exceed the assessed amount of tax payable.

Note: The Government's Economic Package of 17 December 1987 proposes to remove most personal tax rebates and deductions.

The following rebates are the principal rebates available to the individual for the 1987/88 income year.

##### 1. Personal Tax Rebate for Child Taxpayer

\$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 \$1040 net income before becoming liable to income tax.

## 2. Principal Income Earner Transitional Allowance

<u>Assessable Income</u>	<u>Rebate</u>
Up to \$ 6240	\$728
\$6241 - 9880	\$728 less 20% of excess over \$6240
Over \$9880	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.

## 3. 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 and net income less than \$11856 p.a.

Tax credit = \$11586 less (gross income less tax payable)

The credit is shared in two parent families.

## 4. Family Support Tax Credit

Those who receive the Family benefit for a child will be eligible for the Family Support tax credit.

<u>Family assessable income</u>	<u>Tax credit</u>
Under \$15000	\$1872 for one child plus \$832 for each additional child.
Over \$15000	As above, less 18% of the excess income over \$15000.

"Assessable income" has an extended meaning for the purposes of Family Support. e.g. certain exemptions and business losses are ignored.

The tax 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:-

- (a) the employer reducing PAYE deductions; or
- (b) offsetting against provisional tax payments; or
- (c) the Department of Social Welfare; or
- (d) received in the annual assessment.

## 5. Dependent Relative Rebate

The lesser of \$60 or 33% of contributions made towards the support of each dependent relative. The rebate can be claimed for a maximum of two relatives.

The rebate is not available if the relative can support his or herself (regarded as receiving an income of \$8345 p.a. for the 1987 income year). Also excluded are children for whom family benefit is payable.

## 6. 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 a housekeeper is required because of the taxpayer's disability.

## 7. Donations and School Fees

The lesser of \$200 or 33% of payments made.

Donations must be for a minimum of \$5 and made to approved charities. School fees applies to fees paid for children aged under 18 at the start of the income year, and covers fees for private schools, integrated schools, activity fees paid to State schools, fees paid to schools for the handicapped or disabled, or fees paid to registered pre-school organisations. Receipts must be furnished in support of the rebate claimed.

## 8. First Home Mortgage Interest Rebate

The lesser of \$1,000 or 31% of mortgage interest paid.

The rebate will be allowable for the first five years of ownership by owner-occupiers who have purchased their first home prior to 9 November 1984.

## 9. Home, Farm and Fishing Vessel Ownership Savings

45 cents for every dollar saved during the year in special home/farm/fishing vessel ownership accounts.

Maximum rebates per year are:

Home account:	\$1,350 (\$3,000 savings)
Farm account:	\$2,250 (\$5,000 savings)
Fishing vessel account:	\$2,250 (\$5,000 savings)

Maximum savings in any one account are:

Home account:	\$10,250
Farm account:	\$60,000
Fishing vessel account:	\$60,000

If savings are withdrawn and used for purposes other than that specified, the tax rebate must be repaid. This effectively imposes a withdrawal tax of 45% under these circumstances.

**Note:** Home ownership accounts were abolished from 1 August 1986. Existing accounts at that date continue to qualify for the rebate.

10. 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
- Dependent relative
- Housekeeper

It should be noted that the Principal Income Earner and Family Rebate entitlements are, however, determined by reference to the equivalent annual income which would have been earned if the taxpayer worked for a full year.

**Example**

A married man with 2 children aged 4 and 6 derived the following income during the year ended 31 March 1988.

Salary	\$18,600
Mortgage interest	260
Savings Bank interest	220
Dividends received	300

His wife earned \$600 in the same year.

Throughout the year he paid the following amounts:

Life assurance premiums (since 1980) \$ 730	
Superannuation (subsidised scheme)	540
Donations to Red Cross	30
Activity fees to school	70
Rates on own home	152
Interest on mortgage over 1st home (Since 1983)	2,800

Tax deductions from his salary as per his IR 12 were \$2000 after deducting total Family Support tax credit of \$1500.

His income tax assessment would be as follows:

Salary	\$18,600
less Standard Deduction	52
	<u>\$18,548</u>

Mortgage interest	260	
Savings Bank Interest	220	
Dividends	300	
	<u>780</u>	
less exemption	200	
		580
<b>TOTAL ASSESSABLE INCOME</b>		<u>19,128</u>

<b>less Special Exemptions:</b>		
Life assurance premiums	730	
Superannuation contributions	540	
	<u>1,270</u>	

Special exemption allowable		1,200
<b>TAXABLE INCOME</b>		<u>\$17,928</u>

<b>INCOME TAX</b> on \$17,928		\$ 3,953.40
<b>less REBATES and ADJUSTMENTS</b>		

**Family support tax credit**

Family income =  
\$19,128 + 600 = \$19,728  
Tax credit =  
(\$1872 + 832) - 18% of (19728 - 15000)  
i.e. 2704.00 - 851.04  
= \$1852.96

Credit for husband 926.48

**Donations and School Fees**

Lesser of \$200 or 33% of \$100 33.00

**First Home Mortgage Interest**

Lesser of \$1000 or 31% of \$2800 868.00

Total rebates and adjustments 1827.48

Tax Payable 2125.92

Refund due = Tax payable - (PAYE deductions + 1/2 family support tax credit)  
= \$2125.92 - (2000.00 + 750.00)  
= \$ 624.08

Note: The spouse's tax return would have to be filed in order to confirm the family support position. The returns are usually filed together.

## 4.5 TAXATION OF COMPANIES

A limited liability 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 48%. The basic rate for non-resident companies is 53%. Taxable income generally means business profits (in the normal accounting sense), less any taxation incentives applicable to that company. Dividends received by a company are generally regarded as exempt income, and companies are not entitled to tax rebates or special exemptions.

Companies are provisional taxpayers. (For further details refer to section 4.2.3 - The Provisional Tax System, and Appendix I - Dates for payment of provisional and terminal tax.)

The IR 4 Company Return of Income is usually due by 7 July following the company balance date, although if the company balances between 8 May and the following 30 September (inclusive), the return is due two months after balance date. Returns must be filed, including accounts, irrespective of whether a profit or loss is disclosed for the year.

Losses can be carried forward and deducted from the first available assessable incomes until extinguished provided 40% of the shareholding in the loss company remains constant through the period of loss to eventual offset. This requirement is relaxed in the case of public companies listed on the Stock Exchange but not where one person or group of "associated" persons acquires more than 10% of the shareholding.

Special considerations apply where relatives (i.e. 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.

Benefits provided to shareholders in a private company will be treated as follows:

Minor shareholder (less than 10% interest):

- Costs are
  - tax-deductible to the company
  - liable to fringe benefit tax
  - not regarded as a dividend in the hands of the recipient.

Major shareholders (at least 10% interest):

- Costs are
  - not tax-deductible to the company
  - not liable to fringe benefit tax
  - regarded as a dividend in the hands of the recipient.

## **4.6 TAXATION OF PARTNERSHIPS**

### **4.6.1 Overview**

A partnership is not a taxpaying entity and is not itself liable to pay tax. However, the partners must file a separate "partnership" return of income (IR 7) covering their joint income (irrespective of profit or loss) and detailing the distribution amongst the various partners. The partnership accounts or the supplementary return forms IR 3B or IR 3F should also be furnished.

Each partner is liable for tax as an individual and must add their share of the net partnership income to their income from other sources. Income from a partnership does preserve its identity in the hands of the recipient partners as interest and dividends (up to \$200 exempt), and ordinary assessable income. (Refer to section 4.4 Taxation of Individuals). Partnership losses should always be allocated to the constituent 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 long been a common device for splitting income among family members, thereby avoiding the high tax brackets. To counteract loss of revenue through this type of income splitting, the Income Tax Act lays down five 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 five 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 TAXATION OF 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. It must be emphasised, however, that 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.

### **4.7.1 Classification of Trusts**

The Income Tax Act distinguishes between two types of trust:

#### **Specified Trusts**

Generally speaking, these are trusts created during the lifetime of the settlor (i.e. an inter vivos trust) on or after 19 July 1968; and

#### **Other Trusts.**

Trusts other than specified trusts.

### **4.7.2 Liability for Income Tax**

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 is eligible for. Obviously, 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 other than Beneficiaries' Income and the trustee is assessed for tax on the following basis: **Specified Trusts** are taxed at 35 cents per dollar of taxable income or at the basic rates applicable to individuals, whichever is the greater. No special exemptions are granted. **Other Trusts** are taxed at the basic rates applicable to individuals after deducting a special exemption of \$100.

Tax on the income of a trust will normally be paid on a provisional basis, the return of income for the trust (IR 6) being 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 an adult beneficiary of any trust is entitled to income under a specific provision of the trust deed or by the discretionary act of the trustee; or
- Where an under-age beneficiary of an 'other' trust is entitled to income under a specific provision of the trust: or
- Where the trustee pays or applies 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, provided that if the beneficiary of a specified trust is under-age, the income must remain out of the trust or any business in which the trust is interested whilst the beneficiary is under-age.

Any other income not coming within the above is then Trustees' Income.

It should be noted that the test for Beneficiaries' Income stresses the physical parting of possession and/or control over the funds.

## 4.8 FARMERS

### **4.8.1 Liability for Income Tax**

All farmers are liable for income tax as provisional taxpayers. The appropriate return form depends on the entity involved:

- |             |   |
|-------------|---|
| Individual  | - IR 3 plus either completed accounts or the supplementary return from IR 3F. |
| Company     | - IR 4 plus accounts.   |
| Trust       | - IR 6 plus accounts.   |
| Partnership | - IR 7 plus accounts. Each partner must also file an IR 3 return.             |

Provisional tax is paid in three instalments, due dates being the 7th day of the fourth, eighth and twelfth months of the financial year. (Refer to Appendix I)

The Department accepts that any of the following are carrying on their activities for farming or agricultural purposes:

- Livestock farmers (e.g. sheep, cattle, deer, pigs, goats, horses).
- Dairy farmers including sharemilkers.
- Grain and seed growers.
- Apiarists.
- Poultry farmers.
- Orchardists.
- Horticulturists (e.g. market gardeners, tomato growers, berryfruit growers, flower growers).
- Viticulturists.

The Department does not regard dealing in farming stock as an agricultural or farming business.

### **4.8.2 Farm Income**

The assessable income of a farmer will include the following:

- Business profits from trading operations - i.e. the generally accepted accounting definition of profit, being SALES less PURCHASES, 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 4.8.4.)
- The value of meat and produce consumed domestically. (Usually nominal value if grown/raised on the farm).

- Income from contracting.
- Rents received from leasing farm property, including grazing fees.
- Receipts from the hire of livestock and plant, including stud fees.
- Insurance proceeds in respect of the loss of crops or stock.
- Prize money from A & P shows, less entrance fees and other related expenses.
- Compensation for stock condemned.
- Refunds from Income Equalisation scheme.
- 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. (See also Section 4.8.10)
- Income from dealings on the "futures" market, e.g. wool futures.
- Forgiveness of debt. (See section 4.4.3)

Note: For a business registered for GST purposes, GST collected on sales is not regarded as assessable income.

### 4.8.3 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.

Note: For a business registered for GST purposes, GST paid on items purchased is *not* a tax-deductible expense. However if the taxpayer is not registered for GST purposes, then GST forms part of the acquisition cost.

In addition to the appropriate business expenses, farm expenses will include the following:

- Legal expenses incurred in arranging finance for the purchase of, or in arranging for the lease or renewal of a lease of, income producing assets.

- Legal expenses incurred in borrowing or renewing loan moneys employed as capital in the production of assessable income.
- Telephone (excluding personal toll calls).
- Proportion of car expenses (including depreciation) applicable to business use, on the basis of the ratio of business usage to total usage. This entails the keeping of detailed records in an appropriate log book. Where insufficient records are kept, the maximum deduction allowable is limited to 25% of the possible deduction.
- 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 if accurate records are kept, otherwise the deduction is limited to \$10 per employee per week. This applies where these costs have not already been claimed as a tax deductible farm expense.
  - Supplied to related married employees or part proprietor employees: the actual cost of stores and rations supplied is tax deductible.
- Accommodation supplied to employees.
  - Supplied to all employees except a partner-manager: depreciation at appropriate rate(s) and all expenses (e.g. mortgage interest, repairs, maintenance, etc.) are deductible in full.
  - Supplied to a partner/manager: the partnership can claim 25% of the costs of the dwelling (refer paragraph below).
- Depreciation - see section 4.8.5 below.
- One quarter of total expenditure on the farm dwelling if situated on the farm - e.g. repairs and maintenance, depreciation, domestic power etc.
- Repairs and Maintenance costs on sheep yards, sheep dips and fencing. Depreciation may NOT be claimed on these assets, but the outlay costs on these items are usually claimed as development expenditure.
- Cost of papers and magazines containing farming information.
- Wages paid to wife.
  - Payments for cooking duties in respect of permanent employees (including adult members of the farmer's family employed full-time) will be allowed 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.

It is necessary that the requirements for the payment of wages from husband to wife are met i.e. 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 (or at least as soon as possible after) the wife's employment commences.

- Cost of transporting employees' children to school. The cost of transporting the farmer's own children is regarded as private and therefore not deductible.
- Accident Compensation 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 30 June each year, based on the amount of leviable earnings paid to employees during the year ended 31 March. Levy rates vary according to the industrial activity of the employer.

For example:

<u>Industrial Activity</u>	<u>Class No.</u>	<u>Levy per \$100</u>	
		<u>1987/88</u>	<u>1988/89</u>
Agricultural Contracting (Fencing, sheep dipping, spraying, harvesting, haymaking, baling, hedge cutting)	104	4.10	5.35
Agricultural Contracting (Scrub cutting, grubbing, burning, stumping and clearing)	124	9.55	12.65
Shearing	100	3.60	4.20
Cereal growing	101	2.50	2.95
Drainage or Sewer System	104	4.10	5.35
Construction on agricultural land			
Non-mechanised	104	4.10	5.35
Mechanised	507	3.90	5.00
Eel farming	130	2.15	2.15
Fence-erecting and repairing	104	4.10	5.35
General farming	100	3.60	4.20
Fish farming	130	2.15	2.15
Hop growing	101	2.50	2.95
Market gardening	101	2.50	2.95
Orchards - including berry fruit	101	2.50	2.95
Poultry farming	101	2.50	2.95

Spraying - agricultural excluding aircraft	104	4.10	5.35
Stock buying	831	1.20	1.30
Tobacco growing	101	2.50	2.95
Aerial work - fixed wing aircraft	702	27.85	27.25
- helicopters	703	23.10	22.80

#### LEVIES ON THE SELF-EMPLOYED

Owner-operators, partnerships and sharemilkers are generally regarded as self-employed for accident compensation purposes. The levy payable is 3.75% of the year's taxable farm (business) income, with a maximum levy of \$1992.78 plus GST and a minimum levy of \$390.25 plus GST. If the leviable earnings are less than \$16,172 the taxpayer may elect to join the optional levy scheme in which case the minimum levy will be \$606.45 plus GST (based on 3.75% of assumed earnings of \$16,172). The minimum levy for a part-time self-employed person is \$97.56 plus GST, maximum of \$1992.78 plus GST. Further considerations apply where dual earnings are received (i.e. a person is both self-employed and also receives wages). This levy must be paid by 7 February each year.

For the 1988/89 income year, the levy payable will be the assessable income multiplied by the rate of levy appropriate to the industrial activity of the taxpayer.

The above is a general introduction only, and queries regarding levies should be directed to the Inland Revenue Department. Queries regarding compensation claims should be directed to the State Insurance offices except in Dunedin where queries should be directed to the Accident Compensation Commission itself.

- Costs of planting and growing timber which have been incurred since 9 November 1984 are fully tax-deductible. These costs include the costs of planting the trees, and depreciation on plant and machinery used in the forestry operation. Development expenditures may also be claimed - see section 4.8.7.
- Income levelling schemes.

#### Prepaid Expenditure

It has been accepted practice to treat the purchase price of goods or services as an expense when incurred or paid, rather than spreading the cost



over the periods when the good was actually used or the service actually performed. (A simple example would be the fire insurance premium paid in advance for 12 months; the total premium being previously regarded as a lump sum expense rather than the expense being spread over 12 months. In the latter situation the unexpired expenditure at any point represents an asset.)

The "Accrual" rules now require prepaid expenditures to be accounted for on a progressive basis over the financial year (as detailed above). However, for practical reasons, it will not apply to smaller items of expenditure which can still be treated as a lump sum expense.

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:

Expenditure	Limit on Expenditure
Postage and Stationery	No limit
Subscriptions	No limit
* Journals and periodicals	\$2000 (max per year for each
* Trade and professional associations	Association)
Telephone	Expenditure must relate to a 2 month (or shorter) period, and 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 \$20000
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 \$20000
Insurance premiums	Must not relate to a period beyond 6 months past balance date and the amount unexpired must not exceed \$10000

Maintenance Contracts	The contract/warranty must have been purchased as an integral part of the asset(s), or the unexpired portion must not exceed \$10000
Service contracts	Performance completed within 6 months of balance date and the unexpired portion must not exceed \$10000
Consumable aids	Must be in the possession of the taxpayer at balance date and the unexpired portion must not exceed \$50000
Periodic charges	Must not relate to a period beyond 12 months past balance date and the unexpired portion must not exceed \$10000

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.

#### **4.8.4 Valuation of Trading Stock**

##### **1. General Principles**

Trading stock includes anything produced or manufactured; anything acquired or purchased for purposes of manufacture, sale or exchange; livestock; but excludes land.

In the case of any business owned or carried on by the taxpayer, the value of the trading stock at the beginning and at the end of every income year must be detailed in the 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.

However, the Commissioner of Inland Revenue may approve a lower valuation for trading stock other than livestock where obsolescence or other special considerations materially affect its value.

## 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 the previous section on prepaid 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

### **Prior to the end of the 1987 income year**

Livestock is regarded as ordinary trading stock and the taxpayer has the following options:

1. Cost price, market selling value, or replacement price.

2. Standard Value.

A "standard value" is the value selected by the farmer and approved by the Inland Revenue Department, for each particular class of livestock. This value is maintained over time, irrespective of actual cost or subsequent market value. Generally the market value will greatly exceed standard value, but the farmer does not have to revalue or adopt market value where he continues his farming operation.

Standard values may be altered with the approval of the Commissioner. In practice, prior approval is not necessary when standard values are increased to amounts less than current market values.

However, it is desirable to attach a note to the accounts drawing attention to and reasons for the change.

It should be noted that the Inland Revenue Department has now established minimum standard values as follows:

Sheep,			\$ 6
Cattle,	beef	- rising one year	\$ 80
		- others	\$150
	dairy	- rising one year	\$ 60
		- others	\$110
Deer	- red. wapiti, elk, cross breeds	- male	\$200
		- female	\$800
	- other breeds	- male	\$ 90
		- female	\$200
Goats	- Angora	- Purebred	- male \$200
			- female \$500
	- G1	- male	\$ 60
		- female	\$200
	- G2, G3, G4	- male	\$ 10
		- female	\$ 60
	- Milking female	\$ 50	
	- Cashmere female	\$ 20	
	- Other goats	\$ 10	
Pigs	- Sows	\$ 40	
	- Boars	\$ 40	
	- Others	\$ 20	

These values apply to persons who commenced farming on or after 1, December 1985. It is proposed to review these standard values on a regular basis.

It should be noted that a farmer is not bound to adopt standard values: there is no reason why he cannot use either cost, market value, or replacement value for his livestock until such time as he elects to adopt standard values. There are, however, significant tax concessions in using standard values.

Standard values are not available to dealers in livestock or for high priced stud stock (which should be valued at purchase price, with annual revaluations downwards over its useful life).

In addition:

- New farmers, and existing farmers who develop or purchase additional land, will be required to write down the value of new or additional (i.e. excluding replacement) livestock purchased in that year or the subsequent 3 years from cost price to standard value in instalments over a period of 3 years. The legislation envisages equal instalments, but does allow some variation.

Prior to the 1983 income year, the farmer could adopt standard value(s), but maintain cost price (or market or replacement value) for up to three years and then write down to standard value over no more than three further years.

- Reliefs are available by allowing the spreading of resultant large incomes either forward or backward over three years in the event of a sale occasioned by death, retirement, adverse events, expiry of lease etc.

Farmers who are forced to sell livestock because of an adverse event have the option of offsetting the income from the sale against replacement livestock or against the cost of certain capital asset purchased on or after 8 May 1985. The capital assets which qualify are:

- Farming or agricultural plant and machinery (offset treated as depreciation)
  - Fodder storage buildings (offset is assessable if asset sold within 5 years of acquisition)
  - Horticultural root stock.
- For income tax purposes, livestock may be transferred to children who are at least 18 years old and who use those stock in a farming operation, at a reasonable standard value, i.e. not unduly low. (This transaction is regarded as a sale for income tax purposes). A number of values may be used, but the most likely is the minimum standard values acceptable to IRD. Note, however, that if gift duty is payable it is assessed on market value less consideration paid (if any). It should be noted that transfers of livestock from one spouse to another under a matrimonial agreement would generally not be a "gift". Refer to Section 4.12.

### 3. Nil Value Scheme.

The nil value scheme is an incentive scheme aimed at deferring the tax liability on increases in certain livestock numbers over a basic number

until the stock is sold or otherwise disposed of, or revalued. The scheme is optional and applies to any taxpayer carrying on a farming business on land in New Zealand. Investors are not eligible for the scheme.

Main features of the scheme are as follows:

- Applies only to cattle, sheep, pigs, deer and goats.
- The "basic number" of the herd or flock is the greatest number of a particular class of stock held in the four income years prior to the year when the farmer elects to join the scheme. (Prior to the 1983 income year, the period for determining basic livestock numbers was two years.)
- At the end of each income year, all or part of the excess over the basic number in respect of each class may be valued at nil.
- Any decrease in livestock numbers below the basic number of one class can be offset against any increase over the basic number in the other classes on the basis of "specified equivalents".

Where 1 head of cattle is equivalent to 6 sheep or 6 goats or 4 pigs or 4 deer.

All categories within each class of livestock are regarded as equal, e.g. ewes, lambs, wethers etc. All have the same equivalent rating.

- The Commissioner has power to make an equitable adjustment where there is a change in the basic nature of the farming operation, or an adverse event effects the farm, or other special circumstance.

Example:

A sheep and cattle farmer with a balance date of 30 June, elects to join the scheme at 1 July 1982. His year of first election is therefore the year ended 30 June 1983.

His basic number is calculated as follows:

	Stock on Hand			
	<u>30/6/79</u>	<u>30/6/80</u>	<u>30/6/81</u>	<u>30/6/82</u>
Sheep	3,100	4,000	3,905	3,975
Cattle	160	140	151	148

His basic number is the greatest of the numbers for each class of livestock.

i.e. Sheep 4,000 at \$ 5 Std. Value

Cattle 160 at \$50 Std. Value

Year Ended 30/6/83

Closing Stock: Sheep 4,300, Cattle 160

Valued as:

Sheep	- basic number at s.v.	4,000 at \$5
	increase over basic number	300 at Nil
Cattle	- basic number at s.v.	160 at \$50

Year Ended 30/6/84

Closing Stock: Sheep 4,500, Cattle 120

The decrease in cattle below the basic number in this year will necessitate a reduction to the 'increase' in sheep numbers closing stock, the reduction being made at the specified equivalent of 1 head of cattle = 6 sheep.

Sheep numbers	4,500
less decrease in cattle at specified equivalent 40 cattle x 6	<u>240</u> Valued at s.v.
	4,260
less basic number	<u>4,000</u> Valued at s.v.
Net Increase over basic number	<u>260</u> Valued at Nil
Valued as:	
Sheep - number at s.v.	4,240 at \$ 5
increase over basic no.	260 at Nil
Cattle - number at s.v.	120 at \$50

Year Ended 30/6/85

Closing Stock: Sheep 5,000, Cattle 240

Valued as:

Sheep - basic number at s.v.	4,000 at \$ 5
increase over basic no.	1,000 at Nil
Cattle - basic number at s.v.	160 at \$50
increase over basic no.	80 at Nil

If the farmer wished to value part of the increase over basic number at nil value, the number valued at standard value is the basic number plus the additional stock not valued at nil. The basic number, however, is not altered.

## **Valuation of Livestock at the end of the 1987 income year, and in subsequent years.**

As at the end of the 1987 income year, the above provisions regarding livestock have been abolished and a new regime instituted. Broadly speaking, farmers who farm sheep, cattle, deer, pigs or goats will be required to value their livestock (for taxation purposes) using the trading stock scheme, the herd scheme, or the cost price scheme. (The first two schemes are based on 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 other than those specified above (ie sheep, cattle, deer, pigs and goats), the valuation options are (i) cost price, market value or replacement price, and (ii) standard value as agreed by the Tax Department (as per the "old" standard value system

### Valuation of Sheep, Cattle, Deer, Goats and Pigs

#### Trading Stock Scheme

Livestock are to be 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. (For 1987 the figure is based on the 1987 value; for 1988 the figure is based on the average market value for 1987 and 1988). All livestock under 12 weeks of age at balance date, except pigs, are to be valued at 50% of this average value.

#### Herd Scheme

- The "herd" consists of mature animals which are held primarily for the production of progeny, wool milk, velvet or fibre.
- 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.



- Immature animals and other livestock not in the herd scheme must be valued as trading stock.

### Cost Price Scheme

Farmers may elect to value livestock at cost price, market value or replacement price. The taxpayer must keep detailed stock records to the satisfaction of the Commissioner of Inland Revenue. The cost option is not available for bailed livestock.

### High Priced Livestock

High priced livestock are in a separate class for valuation purposes. "High price" means that the purchase price is at least 3 times the previous year's average market value for cattle, deer, goats and pigs, and 4 times the previous years average market value for sheep.

High priced livestock owned for more than 6 months are subject to an annual write-down (ie depreciation) provided the animal is over 2 years of age (1 year for pigs) at balance date. It is valued at cost price up to then.

The amount of 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 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.
- Market values of sheep, cattle, deer, goats and pigs will be published annually by the Tax Department.  
(See Appendix IV for the 1986 and 1987 livestock values)
- Standard values for other livestock are as agreed with the Tax Department.
- 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.  
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 eg sheep farmer diversifying into deer
- \* opts to change their method of valuation of livestock to the trading stock scheme.

The three-year write-down rule applies to the trading stock scheme only.

- It is 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.

### **Transition to the new 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

$$a * ( b - c )$$

where a is the base number of livestock for that class which is at the taxpayers 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:

$$a * ( b - c )$$

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 (ie 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.

A worked example of this new livestock taxation regime is in Appendix V

### **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.

Adjustments to cost occur where breeding bloodstock is raced rather than used for breeding purposes. Expenditures add to cost, income received reduces the cost. As from the 1988 income year, 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 livestock, if application is made within a specified period.

These provisions are due to apply from the commencement of the 1988 income year, with certain transitional provisions.

#### **4.8.5 Depreciation**

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), and under no circumstances can depreciation extend beyond cost. 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 price excluding GST if the taxpayer is registered for GST purposes. For a non-registered taxpayer, depreciation is calculated on the GST inclusive cost.

There are two basic types of depreciation:

#### **1. FIRST YEAR DEPRECIATION ALLOWANCES**

A single first year allowance will be deductible in the year in which certain assets are first used in the production of assessable income, and include:

New or used farming plant and machinery	25%
New farm buildings, extensions and capital alterations (not dwellings)	20%
Employee accommodation	20%

**Note:** First year depreciation allowances for farming will terminate at the end of the 1988 income year.

#### **2. ORDINARY DEPRECIATION ALLOWANCES**

In the second and subsequent years, ordinary depreciation will be allowed as a deduction from assessable income provided adequate records are maintained. Depreciation is usually calculated as a fixed percentage of either the cost price of the asset (CP method) or the diminishing book value (DV method), and the Inland Revenue Department specifies both the rate and method of depreciation. These schedule rates are the maximum allowable for income tax purposes, although a lesser rate may be claimed if desired.

Selected examples of Schedule Rates of Ordinary Depreciation:

ITEM	%	
Barns - loafing and wintering	10	CP
Bridges - wooden	2.5	CP
- other	2	CP
Buildings - reinforced concrete	1	CP
- brick, stone, concrete	2	CP
- wooden	2.5	CP
- "temporary buildings"	10	DV
Chainsaws 50		DV
Crates - sheep and cattle 15		DV
Dams and Reservoirs - reinforced concrete	1	CP
- other		Maintenance
Dips - shower type	10	DV
Effluent disposal units on farms	10	DV
		or Development
Electric Fences	10	DV
Ensilage Pits - concrete walls with sliding roof	10	DV
Feeding out units for cattle	4	CP
Freezers - for dog meat 10		DV
Glasshouses - wooden framed	5	CP
- metal framed	3	CP
- P.V.C. Tunnel House	7.5	CP
		& Maintenance
Irrigation plant	10	DV
		or Development
Milking Sheds - built before 1/4/66	4	CP
- built after 1/4/66	10	CP
- conversion to herringbone	10	CP
- herringbone or rotary	10	CP
Motor Vehicles, trucks, bikes and scooters	20	DV
Pig Houses - all type	10	CP
Plant and machinery - motorised	20	DV
- non-motorised	10	DV
Poultry - Battery type cages	10	DV
- Colony houses with wooden frames, iron roofs and netting sides and bases	10	DV
- Fowl Houses Steel framed	2.5	CP
Wooden framed	5	CP
Silos - erected on farm 10		DV
Slaughterhouses on farms - concrete	5	CP
- timber and concrete	6	CP
- timber	10	CP
Tractor Safety Frame purchased before July 31 1986	100	CP
Trailers		At the rate of the towing vehicle

## Depreciation of Cars

For tax purposes, the depreciable cost of motorcars and stationwagons (excluding utility vehicles, e.g. landrover, and vehicles of a "specialised nature", e.g. hearse) has been based on:

Actual cost	if purchased after 1987 income year
\$11000	if purchased during 1982-1987 income years
\$ 8000	if purchased 1979-1981 income years
\$ 7000	if purchased 1978 income year
\$ 6000	if purchased after 22/10/74 but before the 1978 income year
Actual cost	if purchased before 23/10/74

Costs in excess of these specified amounts could not be taken into account when calculating depreciation.

As at 1 April 1987, the book value of cars owned by the taxpayer may be revalued for depreciation purposes according to the following formula:

$$\frac{\text{Actual cost}}{\text{Specified cost}} \times \text{book value based on specified cost}$$

Depreciation will then be calculated on this revised book value.

- e.g. Car purchased for \$18500 November 1984.  
Specified cost \$11000  
Depreciation allowable to 31/3/86 \$4664.

$$\begin{aligned} \text{Revised book value} &= \frac{18500}{11000} \times (11000 - 4664) \\ &= \underline{\underline{\$10656}} \end{aligned}$$

## Beekkeepers

The cost of frames for supers and hives of a new apiarist or for additional supers and hives of an established apiarist is capital expenditure and not deductible. Ordinary depreciation is not allowable, but first year depreciation may be claimed. However, the full cost of repairs and the cost of replacement frames is a tax-deductible expense.

## Assets Acquired During the Income Year

If first year depreciation is not claimed, then ordinary depreciation may be claimed as follows:

**BUILDINGS** - Depreciation is allowable on the cost of the building only (excluding land) for each whole or part month used.

**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 the 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..

**Buildings:** Any loss on sale is not tax deductible. However, if no depreciation has been previously claimed, then accumulated depreciation at schedule rates can be claimed in the year of sale.

**Other Assets:** Any loss on sale is deductible in the year of sale. If no depreciation has been previously claimed, the total loss (i.e. cost less sales price) can be claimed when the asset is sold.

#### **AT A PROFIT**

i.e. Net sales proceeds (after deducting costs of sale) are greater than book value.

**Buildings:** Ordinary depreciation recovered is not assessable, but if owned for less than 10 years, any write-back for tax purposes is merely to the extent that the disposal proceeds over and above book value represents a recovery of special, additional, or first year depreciation.

**Other Assets:** Any depreciation recovered is assessable in the year of sale, although it can be used to offset (i.e. reduce) the depreciable cost of a replacement asset. If the depreciation recovered exceeds \$1,000, the taxpayer may elect to spread the amount recovered over the year of sale and up to three years back.

It should also be remembered that any excess of disposal proceeds above cost price represents a capital gain which is not taxable.

### **4.8.6 Farming Investment Allowance (Terminated 31 March 1985)**

20% of the cost of new plant and machinery used for farming or agricultural purposes was deducted from assessable income in the year the asset was first used.

The allowance did not affect first year or ordinary depreciation, and was in addition to depreciation claims. This meant that 120% of cost could be written off over the working life of the asset.



#### 4.8.7 Expenditure on Land Improvements (Development Expenditure)

Certain expenditures incurred during an income year which normally would be regarded as capital expenditures 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
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 Appendix III.

The types of expenditure which qualify are:

- The eradication or extermination of animal or vegetable pests;
- The felling, clearing, destruction, and removal of timber, stumps, scrub, or undergrowth;
- The destruction of weeds or plants detrimental to the land;
- The preparation of the land for farming including its cultivation or grassing.
- The draining of swamp or low-lying lands;
- The construction of access roads or tracks;
- The construction of dams, stopbanks, irrigation or stream diversion channels, or other improvements for the purpose of conveying water or preventing soil erosion;
- The repair of flood or erosion damage;
- The sinking of bores or wells to provide water for the land;
- The construction of aeroplane landing strips to facilitate aerial topdressing;
- The construction of fences, including the purchase of wire netting to make fences rabbit proof;
- The erection of electric power or telephone lines;
- The construction of feeding platforms, feeding yards, plunge sheep dips, or self-feeding ensilage pits;
- The construction of supporting frames for growing crops;
- The construction of earthworks, ponds, settling tanks, or other similar improvements primarily for treating waste products or combating pollution of the environment.

Since the beginning of the 1987/88 income year, the new depreciation regime also includes the following expenditures:

- the planting of vines or trees (except those planted for timber production)
- the construction of structures for shelter purposes.

### **Fertiliser and Lime**

Expenditure on the purchase and application of fertiliser and/or lime may be deferred in whole or in part, and claimed at the written election of the taxpayer in the year of expenditure and over not more than four succeeding years.

### **Tree Planting**

A deduction is allowed for expenditure incurred in on 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% (maximum \$7500)
1989	75% (maximum \$7500)
1990	55% (maximum \$7500)
1991	30% (maximum \$7500)
1992	actual expenditure (maximum \$7500)

The amount of expenditure which is not eligible for immediate deduction may be treated as expenditure on land improvements i.e. capitalised and depreciated.

### **4.8.8 Recovery of Development Expenditure and Interest**

The clawback of interest and development expenditure deductions on farming properties (irrespective of ownership structure) sold within 10 years of purchase has been abolished as from 13 December 1985.

"Farming" includes agriculture, horticulture, viticulture, aquaculture and forestry.

### **4.8.9 Limitation of Tax Losses from Farming or Landowning**

Tax losses from farming activities from the 1984 to 1986 income year, and from property owning, can only be offset against other income up to a maximum of \$10000 per annum. Losses above this limit must be carried forward and deducted from other income in following year(s) subject to the \$10,000 limit.

#### **4.8.10 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.

The vendor is assessable on the net proceeds of sale i.e. the cost of timber is an allowable deduction. Where income is derived over more than one year, then the cost may also be spread over these years. (These provisions also apply to sales of minerals and flax)

#### **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 expenditures 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 4.15.4).

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 Appendix III (section 4.16.3)

#### **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 expenditures 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.

#### **4.8.11 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 from 1/4/77 (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 deposits 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 HORTICULTURE

The following provisions relate specifically to horticulture, but readers should also familiarise themselves with the general farming provisions.

**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 subject to depreciation allowances as for a farm (refer section 4.8.5).

New farm buildings and employee accommodation Taxpayer's dwelling	First year and ordinary depreciation 25% of ordinary depreciation
---	---

**Expenditure on land improvements** and development is subject to the same rules as for farming. Refer to Section 4.8.7

The following change should be noted.

Prior to the commencement of the 1988 income year, the cost of fruit trees and vines and of planting them was regarded as capital expenditure (i.e. not tax deductible). Since that date, the costs of initial (and replacement) plantings may be depreciated as "land improvements". (refer Section 4.8.7 and Appendix III)

Expenditures 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:

- Immature plants - nil value as not readily saleable. This applies irrespective of whether the plants are grown in the ground, in pots, trays, bags, etc.
- Mature plants - suitable for sale and severed from the land. Valued at cost price, market value or replacement price.  
"Cost" can be:
  - 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 the ground.
- Pots and containers should be valued at cost price, market value or replacement price.

Valuation of orchid plants:

- Immature plants - nil value, irrespective of place grown.
- Mature plants - valued at cost price (i.e. 50% of selling price), market value, or replacement price.
- Plants purchased from other growers should be valued at actual cost.

**Horticulturists** qualify for the Farm Income Equalisation Scheme (refer section 4.8.11).

**Schedule Rates of Depreciation:**

ITEM	%
Agricultural plant, and equipment including tractor drawn implements.	10 DV
Self-propelled equipment	20 DV
Cloches	Replacement or Annual Revaluation or Standard Value

Irrigation/frost protection plant - i.e. pumps, pump housing, sprinkler, standards, pipelines.	10 DV or Development Expenditure
Glass houses - wooden framed	5 CP
- metal framed	3 CP
Hop frames	Replacement or Annual Revaluation or Standard Value or Development
Hop kilns	15 DV
Plastic pots for tomato growing	Standard Value (20c each)
P.V.C. Tunnel houses	7.5 CP plus maintenance
Spray plant (orchardists)	
Self propelled and air-blast units	20 DV
Others	10 DV
Tomatoes-structure for shading plants	5 CP
Trickle irrigation equipment in glasshouses	25 DV



## 4.10 FISHING INDUSTRY

The following provisions relate specifically to the fishing industry but readers should also familiarise themselves with the previous sections.

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 Depreciation**

#### 1. First Year Depreciation

Allowances available to the fishing industry include:

New or used plant and machinery	25%
New buildings or building improvements required for fish export hygiene purposes	30%
Employee Accommodation	20%

**Note:** First year depreciation allowances for fishing will terminate at the end of the 1988 income year.

#### 2. Ordinary Depreciation

In addition to the relevant items specified in section 4.8.5, the following schedule rates may apply.

ITEM	%	
Cool stores and freezing chambers		
Buildings	3	CP
Plant	10	DV
Fishing Vessels		
Registered Hull, including fixed gear and refrigeration rooms.	10	DV
Deck machinery, winches and motors	15	DV
Main engine	20	DV
Fish Processing Buildings	4	CP
Fish Processing Plant	15	DV

Wooden fish boxes and plastic fish

Replacement only  
containers or  
Standard Value or  
Annual Revaluation

Radio	- Receivers	20	DV
	- Telephones	20	DV
	- Testing equipment	20	DV
	- Transmitters	20	DV

### 3. Additional Depreciation on Certain Capital Expenditure on Fishing Boats.

Capital expenditures incurred prior to the 1989 income year which arise from Marine Department surveys of fishing boats may be depreciated at the rate of 25% in the year incurred and in each of the 3 succeeding years. Such expenditures include alterations to the hull, and costs of acquiring, installing or extending equipment or machinery for use in a fishing.

#### **4.10.3 Fishing Investment Allowance**

Terminated on 31 March 1983.

#### **4.10.4 Development Expenditure - Fish Farming**

Certain expenditures incurred during an income year which normally would be regarded as capital expenditures 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
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 Appendix III

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 longlines 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.

The clawback of interest and development expenditure on fish farming activities sold within 10 years of purchase has been abolished as from 13 December 1985.

#### **4.10.5 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. For details refer to section 4.8.11.

## 4.11 EXPORT INCENTIVES

This section outlines the major incentives which could apply to primary producers who are involved in exporting. For reasons of brevity, only selected aspects have been included, and care must be exercised when applying these guidelines to any particular circumstance. Your accountant or the appropriate authority should be consulted regarding queries.

The current export incentives aim to reward the taxpayer in proportion to his performance in generating foreign exchange which is remitted back to New Zealand. They take the form of a tax credit (i.e. rebate), or a cash refund in the case of exporters who are in a tax loss situation. These incentives are:-

- Export performance incentive for qualifying goods.
- Export performance incentive for qualifying services and/or overseas projects.
- Export performance incentive for qualifying tourist services.

### **4.11.1 Export Performance Incentive for Qualifying Goods**

Note: Not available after the 1987 income year.

The incentive allowance is given as a refundable tax credit, the rate of which varies according to the local domestic content of the goods exported. The amount of tax credit is calculated by multiplying the total value of f.o.b. export sales for a particular product by the specified rate of tax credit. The specified rate of tax credit is found in a schedule prepared by the Department of Trade and Industry which lists export commodities and their associated value added band and the rate of tax credit. The following table shows the domestic value added bands and rates of incentive allowance:

<b>Band</b>	<b>Domestic Value Added</b>	<b>Rate of Tax Credit</b>
A	80 - 100%	11.9%
B	70 - 80	10.5%
C	60 - 70	9.1%
D	50 - 60	7.7%
E	40 - 50	6.3%
F	20 - 40	4.2%
G	0 - 20	1.4%

The incentive is available to an exporter as export merchant of qualifying goods. The incentive is not available to co-operative dairy, milk marketing or pig marketing companies (unless their export goods give rise to assessable income), to non-resident mineral development companies as to mineral mining companies.

An "exporter" is a manufacturer, producer or processor of qualifying goods who must have:

- Exported the goods from New Zealand; and
- Sold or otherwise disposed of the goods to an overseas purchaser; and
- Been the owner of the goods at the time of the sale or disposal.

The taxpayer can engage a commission agent to export the goods on his behalf so long as he remains the owner of the goods up to the point of sale to the overseas purchaser; but if the goods are sold or otherwise disposed of to the agent then it is the agent and not the manufacturer who can claim the incentive deduction.

An "export merchant" is the person or firm that:

- Purchases goods from the manufacturer or other supplier and directly contracts the sale of those goods with an overseas buyer; and
- Is responsible to the overseas purchaser for the quality, quantity and delivery of the goods sold; and
- Is entitled to receive payment for the goods from the overseas purchaser; and
- Is actively engaged in seeking out export opportunities for New Zealand products.

Qualifying goods are those which are specified in the schedule of export goods by the Department of Trade and Industry. Expressly excluded from qualifying as export goods are those goods exported by way of gift, gifts sold in a duty free context, consumable provedore goods and imported goods which are exported without any New Zealand added content.

The export performance incentive for export goods is supplemented by the export programme suspensory loan scheme (See Section 4.11.5).

Example:

Assume qualifying goods exported were:

Band A	f.o.b. sales	\$100,000
B	f.o.b. sales	\$200,000
C	f.o.b. sales	\$300,000

Export Performance Incentive is calculated as:

\$100,000	x 11.9%	=	11,900
200,000	x 10.5%	=	21,000
300,000	x 9.1%	=	27,300
Total incentive tax credit			<u>60,200</u>

The incentive for export goods will terminate as follows:

- 1985 income year - 100% incentive
- 1986 income year - 50% incentive
- 1987 income year - 25% incentive
- 1988 income year - nil incentive

#### 4.11.2 Export Performance Incentive for Qualifying Services and/or Overseas Projects

Note: Not available after the 1987 income year.

Any taxpayer who provided professional or technical services overseas will be entitled to a refundable tax credit based on the net foreign currency earnings which are either remitted back to New Zealand or are paid out of funds held in New Zealand. Qualifying services include advisory services relating to the establishment or development of any farming, agricultural, horticultural, fishing, or forestry project.

Example:

Gross fees from qualifying services	\$20,000.00
less overseas expenditure	5,000.00
Net foreign currency earnings	<u>\$15,000.00</u>
Net foreign currency earnings transferred to New Zealand through the N.Z. banking system	 \$10,000.00
Tax Credit for 1987 is 2.975% of \$10,000 i.e.	 <u>\$ 297.50</u>

The incentive for qualifying services will terminate as follows:

- 1985 income year - 100% incentive (11.9% tax credit)
- 1986 income year - 50% incentive ( 5.95% tax credit)
- 1987 income year - 25% incentive ( 2.975% tax credit)
- 1988 income year - nil incentive

#### 4.11.3 Export Performance for Qualifying Tourist Services

Note: Not available after the 1987 income year.

Any taxpayer who provides "tourist services" (viz, supply of accomodation, sustenance, internal transport and admission to the use of visitor facilities to tourist who pay for these services in foreign currency prior to arrival in New Zealand), and is actively engaged in attracting oversease tourists, will be entitled to a refundable tax credit based on the net foreign currency earnings which are either remitted back to New Zealand or are paid out of funds held in New Zealand.

The incentive for qualifying services will terminate as follows:

- 1985 income year - 100% incentive (10% tax credit)
- 1986 income year - 50% incentive ( 5% tax credit)

1987 income year - 25% incentive (2.5% tax credit)

1988 income year - nil incentive

#### **4.11.4 Export-Market Development and Tourist Promotion**

##### **Incentive**

Any taxpayer who incurs qualifying expenditure will be entitled to a refundable tax credit equal to a specified percentage of such qualifying expenditure.

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
- Are regarded as 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.

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 proposed to be:

1987 income year	69 % tax credit
1988 income year	64 % tax credit
1989 income year	58 % tax credit
1990 income year	53 % tax credit

Example:

Assume that the taxpayer has received an export program grant (of \$12,800) in respect of qualifying expenditure of \$20,000 in the 1987 income year.

Qualifying Expenditure:

Salaries and Wages	\$17,000
Overseas travel and accommodation	5,250
Net cost of samples	750
Advertising overseas	2,000
Total qualifying expenditure	<u>25,000</u>

less Qualifying expenditure in respect of which a grant was made	<u>20,000</u>
--	---------------

Expenditure which qualifies for tax credit	\$ <u>5,000</u>
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Tax Credit is 69% of \$5,000, i.e.	\$ <u>3,450</u>
------------------------------------	-----------------

**4.11.5 Export Market Development Activities Incentive for Self-Employed Taxpayers**

Any taxpayer (not being a company) who is in business on his own account or as a member of a partnership who has engaged in market research, securing publicity or soliciting business, or supplying services outside New Zealand in relation to construction projects, education training courses, or technical advice or assistance, will be entitled to a refundable tax credit equal to a specified percentage of the "value of time" spent on these export-market development activities outside New Zealand.

The "value of time" is calculated as:

$$\frac{(a \times b) - (c \times \frac{100}{64})}{2}$$

where:

- a Is half the minimum hourly rate usually charged by the principal of a New Zealand firm for the particular profession or occupation of the taxpayer. If there is no customary rate, the Commissioner may determine a reasonable rate.
- b Is the number of complete hours spent on export-market development activities in the income year.
- c Is the amount of any export program grant or export market development grant received in respect of the time spent by the taxpayer in export market development activities.

The available tax credits are proposed to be:

1987 income year	69 % tax credit
1988 income year	64 % tax credit
1989 income year	58 % tax credit
1990 income year	53 % tax credit

Example:

Assuming:

The taxpayer spent 1,000 hours on qualifying export-market development activities during 1987 income year.

The minimum charge-out rate for the taxpayer's profession is \$20 per hour; and

During the year, the taxpayer received an Export Program Grant in respect of the value of time of \$1,920, then the value of time will be:

$$\frac{(\frac{\$20}{2} \times 1000) - (\$1920 \times \frac{100}{64})}{2}$$

$$= \$3,500$$

Tax Credit is 69.% of \$3,500 i.e. \$2,415.00

#### **4.11.6 Export Programme Suspensory Loan Scheme**

**N.B.** Applications closed 23 May 1985

This scheme is to assist substantial and proven exporters of goods and services to generate greater net foreign exchange earnings. The assistance is in the form of a suspensory loan, paid in advance, to cover 40% of the qualifying expenditure to be secured in a target market. The loans will convert to a grant if the sales targets are met. The loan, plus interest, must be repaid if the targets are not met. The balance of the qualifying expenditure may be claimed as an ordinary tax deduction.

To be eligible for the incentive, the exporters must:-

- Be a New Zealand taxpayer;
- Own the goods at the time of export or perform the services as appropriate;
- Have achieved net foreign exchange earnings of at least \$250,000 in one of the 3 years prior to application;
- Personally incur the promotional expenditure; and
- Be responsible for and retain control over the promotional programme.

Eligible expenditure is the same as for the tax credit incentive for export market development expenditure (outlined in previous Budget Manuals) subject to limits on salaries and sustenance costs.

The maximum loan is the lesser of \$200,000 as 30% of the net foreign exchange earnings for the programme year after making an adjustment for market maintenance where appropriate.

The loan is for 36 months, and is renewable at the end of the 1st and 2nd years upon the exporter showing that he has met the specified sales forecasts.

## 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, i.e. no profit on sale.
- Transfers of land with growing timber on it shall be 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.
- Base numbers for the income write-off are to be apportioned between taxpayer and spouse, having regard to the matrimonial agreement.
- Where a spouse receives livestock under a matrimonial agreement during the 1987 income year, the amount of the revaluation income which can be spread forward is to be apportioned between the taxpayer and his/her spouse.
- As a general rule, if a leased asset is acquired and then sold at a profit, such profit is regarded as assessable income (the maximum being the lease payments previously claimed as tax deductions). Matrimonial transfers of this "leased" asset are deemed to be at book value, so that any profit on a subsequent sale will be assessable in the hands of the transferee.
- 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 BENEFITS TAX**

### **4.13.1 General Provisions**

Fringe benefit tax is payable at the rate of 48% 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. There is a compounding 10% penalty for every six months the tax remains unpaid. Records must be retained for 10 years. Fringe benefit tax is levied on all employers, irrespective of whether they are taxable entities or are in a tax-loss situation, and is not 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). An employee is a person who receives payments from which PAYE tax has been deducted by the employer (e.g. wages), but excludes a partner's salary, national superannuation, earnings related accident compensation, or a with-holding payment paid to a non-resident contractor. An employer is the person who pays the employee.

A private company does not pay fringe benefit tax on fringe benefits granted to any shareholder employee who is a major shareholder (one who holds at least a 10% interest in the company). In such a case the cost of providing the benefit is not deductible to the company and the recipient is assessed as having received a dividend. A private company does pay fringe benefit tax on benefits granted to employees with no interest, or less than 10% interest, in the company.

### **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 an employee.
3. Subsidised transport where the employer is a public carrier.
4. Other benefits, such as free, subsidised or discounted goods and services, e.g. free milk, meat, firewood etc. provided to a farm worker.

Benefits specifically excluded from Category 4 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.
- Payment of tuition or examination fees of the employee or any child of the employee.
- Payment 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 retiring allowance.
- Board, lodging and free/subsidised accommodation (as these are already assessable as income).
- Premiums paid by the employer for personal accident or sickness insurance for the benefit of the employee and/or the employee's family.
- Employer's contributions to approved superannuation funds and the like.
- Benefits provided and enjoyed on the business premises  
e.g. sports and recreational facilities, dining facilities etc.

There are two general exemptions for category 4:

- \$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:

$$= \frac{\text{Value of fringe benefit} - \text{employee's contribution}}{\text{Taxable value of fringe benefit}} \quad (\text{except for low interest loans})$$

The amount of fringe benefit tax payable is calculated as the taxable value of fringe benefit multiplied by the rate of FBT, i.e. 48%.

### 4.13.4 Value of Fringe Benefit

#### 1. Motor Vehicles

$$\text{Value of benefit} = \frac{\text{No. days available for private use (max 90)}}{90} \times Z$$

The following are 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" (define 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 with gross laden weight less than 3500 kg other than a car, which has the employer's identification (e.g. name, logo etc.) permanently affixed to the exterior and the only private use to or from work or is incidental to the business use).
- **Note:** Vehicles with a fold-down rear seat will be regarded as a "van" (i.e. work-related) 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; or  
- average cost of vehicle including GST if from a vehicle pool (as appropriate).

Taxable value = Value of benefit - Employee Contributions

Employee contributions towards the cost of private use of the vehicle may take the form of:

- Payment of all or part of the running costs

- Reimbursing employer for the use of the vehicle
- 2.5% of the cost price of the vehicle to the employee (where the vehicle is jointly owned).

## 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 of interest is as follows:-

- For loans made after 31 March 1985 or having variable interest rates, the Prescribed rate is set annually by Regulation. These rates are as follows:
 

Since 1 January 1988	19% p.a.
After 31 March 1987	17% p.a.
After 31 March 1985	14% p.a.
- For loans made prior to 1 April 1985 and having fixed rate of interest, the Prescribed rate is the "non-concessionary rate of interest" for that particular year as set by special regulation.

## 3. Subsidised Transport

Taxable value = 25% of highest cost to public for that class of travel, or the amount paid by employee

## 4. Other Benefits

Taxable value = Value of benefit - 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.
- Where the employer is a company included in a group of companies, the value of the goods can be determined at the company's option by applying the principles in the two points above as if the group were one company.

**Note:** The value of the benefit is the lower of the cost as determined above as 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 arm's length price charged for the services.



## 4.14 GOODS AND SERVICES TAX (GST)

Note: Refer to section 4.15 for proposed changes.

### **4.14.1 Overview**

GST is a broad based tax on consumption, and will be levied at a rate of 10% on virtually all goods and services supplied in New Zealand, on or after 1 October 1986. Exported goods and services will be taxable but at a rate of zero per cent. GST will also be imposed (at the rate of 10%) on all goods and services imported into New Zealand on or after 1 October 1986.

Only persons who conduct a "taxable activity" are required to register for GST purposes, and will be liable to charge and account for GST. To arrive at the net amount of GST payable to the IRD, registered persons (traders) may deduct the GST which they paid on their inputs from the GST charged on their outputs. Thus, although GST will be charged at each stage of the production and distribution chain, it is only the final consumer who actually bears the full cost of the GST charged.

It should be noted that GST is only part of a financial package introduced by the Government. Accompanying GST will be other taxation reforms which alter the personal income tax scale, introduce family support packages, and alter the existing regime for indirect taxation.

"Goods" includes all kinds of personal and real property, excluding money.

"Services" are anything other than goods or money.

### Registration

Any person/organisation whose turnover from taxable activities is over \$24000 p.a. must register, and charge and account for GST. Registration is optional for traders having a taxable turnover of less than \$24000 p.a.

A taxable activity is any activity which involves the regular supply of goods and/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 employees), and the making of exempt supplies.

The following will be exempt from GST:

- The supply of financial services (if not zero rated);
- 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.

Certain supplies of goods and services are to be zero-rated. This means that the activities are taxable, but the rate of GST is zero.

Zero-rating occurs if:-

- The goods are exported or are supplied outside New Zealand.
- A taxable activity is supplied as a going concern to a registered person. e.g. a farm is sold as a going concern to a registered trader.
- The services were performed outside New Zealand,
- The services related to the transportation of passengers or goods to or from New Zealand
- plus others

#### 4.14.2 Returns and Payment of GST

Registered persons must regularly furnish GST returns to the IRD. The standard period between returns is two months, but the taxpayer may choose to make monthly returns, or six monthly returns (but only if the value of taxable supplied does not exceed \$250,000 in the previous 12 months).

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 two months of the end of the appropriate return period. GST unpaid after that due date will attract additional tax at the rate of 10% for the first month, and a further 2% for each extra month the tax remains unpaid.

Accounting for GST is 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 is less than \$500,000.

The GST payable by (or refundable to) that registered person for a return period is calculated (in general) as:-

	GST charged on outputs	(Output tax)
less	GST paid on inputs	(Input tax)

If the output tax exceeds the input tax, the difference is paid to the IRD: if the 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/received x "tax fraction"

NB: The "tax fraction" is calculated as

$$\frac{\text{GST rate}}{100 + \text{GST rate}}$$

and is 1/11 for a GST rate of 10%

or The total of the GST charged (if the accounting system actually accumulates this total).

Input tax is the GST charged in respect of goods and services supplied to the registered person. These will be detailed in the tax invoices obtained from the supplier, although the "tax fraction" approach may be used. Input tax would also include GST paid on imports.

Other deductions for specific circumstances may also be deducted from output tax (e.g. bad debts, adjustments, use of private/exempt assets, etc.)

#### 4.14.3 Tax Invoices

A "tax invoice" must be held before GST paid on inputs can be claimed as a deduction (although this is not necessary if the amount supplied is less than \$20). The tax invoice is a document which contains details of the items supplied - namely

- The word "tax invoice";
- The name, address, and registration number of the supplier;
- The name, 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 price 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. (GST can then be calculated using the tax-fraction method).

A regular "commercial" invoice would supply this requirement if the above details were included.

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, or where it would be impractical to issue a tax invoice and the transaction can be verified by other means (e.g. an automatic payment from a bank account).

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. killing sheet from a meat works.

Where a registered person obtains second hand goods from a non-registered person, the purchaser/recipient of those goods must maintain records detailing:

- Name and address of supplier;
- Date of acquisition of the (secondhand) good;
- Description of the goods;
- Quantity or volume of goods;
- Price paid.

It is assumed that the purchase price paid by the registered person includes GST. The amount of GST can therefore be calculated by using the tax-fraction method.

$$\text{ie GST paid} = \text{purchase price} \times \text{tax fraction}$$

Where an agent is involved in a transaction, the law recognises that it is the principal who is actually receiving as providing goods and services. The agent may issue/receive tax invoices, and is required to maintain sufficient records to be able to ascertain the appropriate principal.

Sale 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, of course, subject to GST if the auctioneer is registered.

### Records

Every registered person must keep adequate GST records, in English, for 10 years after the end of the taxable period to which they relate.

#### 4.15 ECONOMIC PACKAGE 17 DECEMBER 1987

Government announced further radical changes to the structure of taxation in New Zealand in an Economic statement released on 17 December 1987.

Significant points contained therein were as follows:

- \* Personal tax is to be levied at a single (flat) rate as from 1 October 1988. No indication was given as to what this rate will be.
- \* Company tax is to be reduced with effect from October 1 1988 to an "internationally competitive" rate which will be comparable to but not less than the personal tax rate.
- \* Charitable organisations and sports bodies will come under normal income tax rules. Various activities of these bodies will attract different taxation treatment.
- \* GST will be increased to 12.5%, effective 1 October 1988
- \* GST base will be widened by subjecting registered non-profit bodies to GST on their business activities.
- \* From 1 April 1988, registered traders with a turnover of more than \$24 million will be required to submit monthly GST returns.
- \* The guaranteed minimum family income is to be raised for full time wage and salary earners, as from 1 October 1988. It is proposed to provide significant support (through tax rebates) to low income working families and individuals.
- \* Most personal tax rebates and deductions will be removed.
- \* Tax concessions for contributions to superannuation funds and life insurance premiums are to be abolished (as from 17 December 1987). (No legislation has yet been enacted).
- \* Superannuation lump sum benefits and pensions (apart from National Superannuation) will be exempt as from 1 April 1989.
- \* The method of calculating provisional tax will be altered, and tougher penalties will be imposed for underestimation of provisional tax.
- \* Penalties for tax deferral and evasion will be increased.
- \* A capital gains tax or asset tax will be investigated.

\* A full imputation system for company dividends is proposed. A consultative committee has been appointed to receive public submissions on this matter.

## 4.16 APPENDICES

### 4.16.1 Appendix I

#### Months for Payment of Provisional and Terminal Tax

Month of balance date	<u>Provisional Tax</u>			<u>Terminal tax</u>
	First Instalment  (before balance) date)	Second Instalment  (before balance date)	Third Instalment  (before balance date)	(after balance date)
October	February (2)	June	October	September
November	March	July	November	October
December	April	August	December	November
January	May	September	January	December
February	June (3)	October	February	January
March	July (3)	November	March	February
April	August (3)	December	April	February
May	September	January	May	February
June	October	February	June	February
July	November	March	July	February
August	December	April	August	February
September	January	May	September	February

- Notes:**
- (1) Payment is due on the 7th day of the appropriate month
  - (2) For the 1988 year, the due date is March
  - (3) For the 1988 year, the due date is September

## 4.16.2 Appendix II

### Rates of Income Tax for Individuals

#### 1987/88 Income Year

These rates apply for the 1987/88 and subsequent income years.

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



### 4.16.3 Appendix III

#### Expenditure on Land Improvements

Description and Rate of Depreciation DV (%)

##### 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,	10

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
- (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

#### 4.16.4. Appendix IV

Type	Average Market Values of Livestock		
	Class	1986	1987
		\$	\$
Herd classes marked "*"			
Sheep	Ewe hoggets	12	17.20
	Ram and wether hoggets	12	17.20
	* Two-tooth ewes	20	22.30
	* Mixed-age ewes (3yr & 4yr old ewes)	12	13.20
	* 5yr & 6yr ewes	8	9.80
	* Mixed-age wethers	10	11.60
	* Breeding rams	120	124.20
Cattle	Beef breeds and beef crosses:		
	Rising 1yr heifers	200	195
	Rising 2yr & older heifers		
	* (maiden/first calving)	400	273
	* Mixed-age cows (2nd and subs. calving) 340	253	
	Rising 1yr steers & bulls	250	264
	Rising 2yr & older steers & bulls	600	499
	* Breeding bulls	1,500	682
	Fresian and related breeds:		
	Rising 1yr heifers	200	170
	* Rising 2yr & older heifers (maiden/first calving)	400	341

	* Mixed-age cows (2nd and subs. calving)	340	338
	Rising 1yr steers & bulls	250	153
	Rising 2yr & older steers & bulls	600	499
	* Breeding bulls	1,500	471
	Jersey and other dairy breeds:		
	Rising 1yr heifers	200	151
	* Rising 2yr & older heifers (maiden/first calving)	400	263
	* Mixed-age cows (2nd & subs. calving)	340	263
	Rising 1yr steers & bulls	250	136
	Rising 2yr & older steers & bulls	600	499
	* Breeding bulls	1,500	382
Deer	Red deer:		
	Rising 1yr hinds	1,000	1126
	* Rising 2yr & older hinds (maiden/first fawning)	1,400	1521
	* Mixed-age hinds (2nd & subs. fawning)	1,200	1266
	Rising 1yr stags	200	231
	* Rising 2yr & older stags (non-breeding)	400	310
	* Breeding stags	3,500	2036
	Wapiti, Elk, and related crossbreds:		
	Rising 1yr hinds	1,500	1352

	* Rising 2yr & older hinds (2nd & subs. fawning)	2,100	1800
	* Mixed-age hinds (2nd & subs. fawning hinds)	\$1,800	1604
	Rising 1yr stags	300	249
	* Rising 2yr & older stags (non-breeding)	600	362
	* Breeding stags	5,000	1752
	Other breeds:		
	Rising one-year hinds	600	576
	* Rising 2yr & older hinds (maiden/first fawning)	750	777
	* Mixed-age hinds (2nd & subs. fawning)	670	647
	Rising 1yr stags	135	98
	* Rising 2yr & older stags (non-breeding)	250	140
	* Breeding stags	1,000	868
Goats	Angora and Angora Crosses - Purebred and G1 to G4		
	Rising 1yr does	360	98
	Rising 2yr does	-	158
	* Mixed-age does	530	176
	Rising 1yr bucks (non-breeding)/wethers	36	17
	* Bucks (non-breeding)/wethers over 1yr	36	19
	* Breeding bucks	2600	549

Other fibre and meat-producing goats:

Rising 1yr does	150	62
Rising 2 yr does	-	103
* Mixed-age does	300	117
Rising 1yr bucks (non-breeding)/ wethers	10	1
* Bucks (non-breeding)/wethers over 1 yr	10	9
* Breeding bucks	600	159

Milking (dairy) goats:

Rising 1yr does	150	62
* Does over 1yr	300	115
* Breeding bucks	600	75
Other dairy goats	10	9

Pigs

Breeding sows less than 1yr of age	95	82
* Breeding sows over 1yr of age	110	143
* Breeding boars	130	193
Weaners less than 10 wks of age (excluding sucklings)	30	44
Growing pigs 10 to 17 wks of age (porkers/baconers)	75	78
Growing pig over 17 wks of age (baconers)	95	139



#### 4.16.5 APPENDIX V

### LIVESTOCK TAXATION 1987

#### EXAMPLE

A farmer has the following stock on the farm in 1985, 1986 and 1987. The old standard value is \$4 per head.

	<u>Numbers</u>		
	<u>1985</u>	<u>1986</u>	<u>1987</u>
Ewe hoggets	800	800	850
2th ewes	700	750	760
3 & 4yr ewes	1200	1300	1290
5 & 6yr ewes	500	550	600
Rams	70	70	75
	<u>3270</u>	<u>3470</u>	<u>3575</u>

<u>1987 Tax Values</u>	<u>M.V.</u>	<u>70% M.V.</u>
Ewe hoggets	\$ 17.20	\$ 12.04
2th ewes	22.30	15.61
3 & 4yr ewes	13.20	9.24
5 & 6yr ewes	9.80	6.86
Rams	124.20	86.94

<u>Sales during 1987 year</u>	
1800 lambs @ \$18.00 ea.	\$32400.00
560 cull ewes @ \$12.00 ea	6720.00
10 rams @ \$15.00 ea.	150.00
	<u>\$39270.00</u>

<u>Purchases during the year</u>	
15 rams @ \$200 ea.	\$ 3000.00
50 2 tooth ewes @ \$28 ea.	\$ 1400.00
	<u>\$ 4400.00</u>

#### INCOME WRITE-OFF

Ewe hoggets	(70% of \$ 17.20 - 4.00) x 800	\$ 6432.00
2th ewes	(70% of \$ 22.30 - 4.00) x 700	8127.00
3 & 4yr ewes	(70% of \$ 13.20 - 4.00) x 1200	6288.00
5 & 6yr ewes	(70% of \$ 9.80 - 4.00) x 500	1430.00
Rams	(70% of \$124.20 - 4.00) x 70	5805.80
		<u>\$28082.80</u>

## TRADING STOCK SCHEME

### Revaluation of livestock

<u>1987 Closing Tax Values</u>		
Ewe hoggets	850 x \$ 12.04	\$10234.00
2th ewes	760 x 15.61	11863.60
3 & 4yr ewes	1290 x 9.24	11919.60
5 & 6yr ewes	600 x 6.86	4116.00
Rams	75 x 86.94	6520.50
		<u>\$44653.70</u>
less <u>Opening tax values</u>	3470 x \$ 4.00	13880.00
Increase in taxable income due to revaluation of livestock		<u><u>\$30773.00</u></u>

### Spreadable Income

Ewe hoggets	800 x (\$12.04 - 4.00)	\$6432.00
2th ewes	750 x ( 15.61 - 4.00)	8708.50
3 & 4yr ewes	1290 x ( 9.24 - 4.00)	6759.60
5 & 6yr ewes	550 x ( 6.86 - 4.00)	1573.00
Rams	70 x ( 86.94 - 4.00)	5805.80
		<u>29277.90</u>
less Income write-off		28028.80
Spreadable Income (spread over 5 years)		<u><u>\$ 1195.10</u></u>

### Deferrable Income

$$a - (b - c) - d$$

$$a = \$44653.70 - 13880.00 = \$30773.70$$

$$b = \$ 3000.00 + 1400.00 = \$ 4400.00$$

$$c = \$ 6720.00 + 150.00 = \$ 6870.00$$

$$d = \$28082.80 + 1195.10 = \$29277.90$$

$$(b - c) = \$4400.00 - 6870.00 = \$ -2470.00$$

Deemed to be nil.

$$\begin{aligned} \text{Deferrable Income} &= \$30773.30 - 0.00 - 29277.90 \\ &= \underline{\underline{\$ 1495.80}} \text{ (spread over 3 years)} \end{aligned}$$

## 1987 Taxable Income

	<u>Valuation of Livestock on Hand</u>	
	Revaluation of livestock	\$30773.70
less	Income write-off	<u>28082.80</u>
		2690.90
less	Spreadable income deferred to future years (4/5 of \$1195.10)	959.08
less	Deferrable income deferred to 1988 and 1989 (2/3 of \$1495.80 assuming an even spread)	997.20
	Net Increase in taxable income due to revaluation of livestock	<u><u>\$ 737.62</u></u>
	<u>Income from Livestock Operations</u>	
	Sales	\$39270.00
less	Purchases	<u>4400.00</u>
	Cash Surplus	34870.00
plus	Increase in value of livestock	<u>737.62</u>
	Taxable Income 1987	<u><u>\$35607.62</u></u>

## HERD SCHEME

### Revaluation of livestock

#### 1987 Closing Tax Values

Ewe hoggets	850 x \$ 12.04	\$10234.00
2th ewes	760 x 22.30	16948.00
3 & 4yr ewes	1290 x 13.20	17028.00
5 & 6yr ewes	600 x 9.80	5880.00
Rams	75 x 124.20	9315.00
		<u>59405.00</u>

#### less Opening Tax Values

3470 x \$ 4.00 13880.00

Increase in taxable income due  
to revaluation of livestock \$45525.00

### Spreadable Income

Ewe hoggets	850 x (\$ 12.04 - 4.00)	\$ 6432.00
2th ewes	750 x ( 22.30 - 4.00)	13725.00
3 & 4yr ewes	1290 x ( 13.20 - 4.00)	11868.00
5 & 6yr ewes	550 x ( 9.80 - 4.00)	3190.00
Rams	70 x ( 124.20 - 4.00)	8414.00
		<u>\$43629.00</u>
less Income write-off		28082.80
Spreadable Income (spread over 5 years)		<u><u>\$15546.20</u></u>

### Deferrable Income

$$a - (b - c) - d$$

$$a = \$59405.00 - 13880.00 = \$45525.00$$

$$b = \$ 3000.00 + 1400.00 = \$ 4400.00$$

$$c = \$ 6720.00 + 150.00 = \$ 6870.00$$

$$d = \$28082.80 + 15546.20 = \$43629.00$$

$$(b - c) = \$4400.00 - 6870.00 = \$ -2470.00$$

Deemed to be nil.

$$\begin{aligned} \text{Deferrable Income} &= \$45525.00 - 0.00 - 43629.00 \\ &= \underline{\underline{\$ 1896}} \text{ (spread over 3 years)} \end{aligned}$$

## 1987 Taxable Income

	<u>Valuation of Livestock on Hand</u>	
	Revaluation of livestock	\$45525.00
less	Income write-off	<u>28082.80</u>
		17442.20
less	Spreadable income deferred to future years (4/5 of \$15546.20)	3109.24
less	Deferrable income deferred to 1988 and 1989 (2/3 of \$1896.00 assuming an even spread)	<u>1264.00</u>
	Net increase in taxable income due to revaluation of livestock	<u><u>\$13068.96</u></u>
	<u>Income from Livestock Operations</u>	
	Sales	\$39270.00
less	Purchases	<u>4400.00</u>
	Cash Surplus	34870.00
plus	Increase in value of livestock	13068.96
	Taxable Income 1987	<u><u>\$47938.96</u></u>

## LIVESTOCK TAXATION 1988

Livestock on hand at 30 June 1988

	<u>Nos.</u>	<u>Estimated Mkt. Value</u>	<u>2yr Rolling Average</u>	<u>70% of Rolling Avg.</u>
Ewe hoggets	860	\$ 19	\$ 18.10	\$ 12.67
2th ewes	760	24	23.15	16.21
3 & 4yr ewes	1340	15	14.10	9.87
5 & 6yr ewes	590	10	9.90	6.93
Rams	75	135	129.60	90.72
Assume		Sales	\$40000	
		Purchases	\$ 6000	

### TRADING STOCK SCHEME

Valuation of livestock

1987 : 70% of 1987 average market value.

1988 : 70% of 2 year rolling average market value.

1988 Closing Tax Values

Ewe hoggets	860 x \$ 12.67	= \$10896.20
2th ewes	760 x 16.21	= 12319.60
3 & 4yr ewes	1340 x 9.87	= 13225.80
5 & 6yr ewes	590 x 6.93	= 4088.70
Rams	75 x 90.72	= 6804.00
		<u>\$47334.30</u>
less <u>Opening Tax Values</u>		\$44653.70
	Increase in taxable income due to changes in livestock	<u><u>\$ 2680.60</u></u>
	<u>Income from Livestock Operations</u>	
	Sales	\$40000.00
less Purchases		6000.00
	Cash Surplus	<u>34000.00</u>
plus Increase in value of livestock		2680.60
plus 1988 share of spreadable income		239.02
plus 1988 share of deferrable income		498.60
	Taxable Income 1988	<u><u>\$3418.33</u></u>

## HERD SCHEME

### Valuation of Livestock

Herd Animals : 100% of average market value.

Others : 70% of 2 year rolling average market value.

### 1988 Closing Tax Values

Ewe hoggets	860 x \$ 12.67	\$10896.20
2th ewes	760 x 24.00	18240.00
3 & 4yr ewes	1340 x 15.00	20100.00
5 & 6 6yr ewes	590 x 10.00	5900.00
Rams	75 x 135.00	10125.00

\$65261.20

### less Opening Tax Values

59405.00

5856.20

### less Increase in value of herd

2th ewes 760 x \$ 1.70 = \$1292.00

3 & 4yr ewes 1290 x 1.80 = 2322.00

5 & 6yr ewes 600 x 0.20 = 120.00

Rams 75 x 10.98 = 810.00

4544.00

Increase in taxable income due  
to changes in livestock

\$ 1312.20

### Income from Livestock Operations

Sales

\$40000.00

less Purchases

6000.00

Cash Surplus

34000.00

plus Increase in value of livestock

1312.20

plus 1988 share of spreadable income

3109.24

plus 1988 share of deferrable income

632.00

Taxable Income 1988

\$39053.44





**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.

## 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 Liable 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:

**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.

**Gifts made before death** where the donor has reserved an interest for his/her lifetime (i.e. gifts with strings attached).

**Property disposed of before death** where a benefit passes back to the estate upon his death.

**The deceased's share or interest in any property held jointly**, other than a joint family home.

**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 1977. Annual premium \$200. Assigned by way of sale to his wife in 1985 for the surrender value of \$2,000. Deceased dies in 1987, and the policy realises \$5,500.

Amount to be included in the dutiable estate is:

<u>Premiums to date of assignment</u>	x	Proceeds	
<u>Total premiums during term</u>			
=		( 8 x \$200 )	
	x	(10 x \$200)	= \$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 (a) above.

**The value of any pensions payable** to a survivor on the death of the deceased.

### **5.2.3 Forgivenness 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 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.

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 is subject to income tax.

Further details are contained in Section 4, Income Taxation.

### **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, the allowance is in respect of the value of the family residence (i.e. the matrimonial home), or other property 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 have all been exempted 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, in Appendix III (section 5.4). 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 Appendix III 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.

$$\begin{aligned} \text{Present value of } \$2,000 \text{ pa} &= \$2,000 \times 14.92971 \\ &= \$29,859 \end{aligned}$$

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 dies on 18 November 1987 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

Remainderman: Present value of interest \$45,200  
\$100,000

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 Appendix I (section 5.4). 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.

<b>Period between Death of Successor and Predecessor</b>	<b>Duty Reduced by</b>
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 1987 and his estate included the following property (at market value):

Matrimonial home	\$ 165,000
Investments	84,000
Personal chattels	7,000
Cash at P.O.S.B.	3,250
Interest accrued at P.O.S.B.	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 1964, Green took out a policy of life assurance which has annual premiums of \$300. In June 1984 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 1986	\$30,000	1 January 1987	\$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)	
P.O.S.B. - 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
 plus <u>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
 less <u>Exempt Assets:</u>			
Personal chattels to widow		(1)	<u>7.000</u>
			706.604
 less <u>Allowable Debts:</u>			
Mortgage over home	15.000		
Accounts payable	1.300		
Income tax	1.400		
Funeral expenses	<u>1.200</u>		
	18.900		
 <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)		<u>492.704</u>
Net Value of the Estate		\$687.704 <u>                    </u>

ESTATE DUTY CALCULATION:

Estate duty on final balance		33.081.60
less <u>Reliefs:</u>		
Credit for gift duty paid: (6)		
Gift 1 Jan 1986:	150.00	
Interest ( 3% pa for 667 days)	8.22	
Gift 1 Jan 1987:	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 1984, 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	7,000
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 be assessed for income tax in the hands of the person who owes the debt. Refer to Section 5.2.3 and to the relevant parts of Section 4 , Income Taxation.

### 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.

#### 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 1986 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 would be regarded as separately owned assets.

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.

It should be noted that this exemption does not apply to transfers of "separate" property. Any such transfers will still be regarded as gifts.

#### **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 Appendix II (section 5.4).



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 1986.

Gift to B of \$15,000 made on 31 July 1987.

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 1986, 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 1986 - duty of \$150 paid.

Gift to D of \$15,000 made on 1 January 1987.

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 1986 of \$22,000

Gift made to E on 18 November 1986 of \$22,000

Gift made to F on 31 October 1987 of \$35,000

Duty assessment is as follows:

14 August 1986

Gift duty payable on gift of \$22,000 to D is zero.

18 November 1986

Gift duty payable on total gifts for previous 12 months (\$44,000) is \$1,250.00

The duty of \$1250 would be apportioned in the following manner:

$$\text{Gift to D: } \frac{22,000}{44,000} \times 1250 = \$625.00$$

$$\text{Gift to E } \frac{22,000}{44,000} \times 1250 = \$625.00$$

31 October 1987

Gift duty payable on total gifts for previous 12 months (\$57,000) is \$2,850.

The duty of \$2,850 would be apportioned as follows:

$$\text{Gift to E: } \frac{22,000}{57,000} \times 2850 = \$ 1100.00$$

$$\begin{array}{r} \text{less duty already paid} \\ \text{DUTY PAYABLE} \end{array} \quad \begin{array}{r} \$ 625.00 \\ \$ 475.00 \end{array}$$

$$\text{Gift to F: } \frac{35,000}{57,000} \times 2850 = \$ 1750.00$$

Total gift duty payable is:-

Gift to D	\$ 625
Gift to E (625 + 475)	\$1100
Gift to F	<u>\$1750</u>
	<u>\$3475</u>

## 5.4 APPENDICES

### APPENDIX I.

#### 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

APPENDIX II

RATES OF GIFT DUTY

GIFTS MADE ON OR AFTER 1 APRIL 1984

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Value of Dutiable Gifts Made Within 12 months		Amount and Rate of Duty
	\$	\$
1 - 27,000		Nil
27,001 - 36,000	0 plus	5% of excess over \$27,000
36,001 - 54,000	450 plus	10% of excess over \$36,000
54,001 - 72,000	2,250 plus	20% of excess over \$54,000
Over \$72,000	5,850 plus	25% of excess over \$72,000

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APPENDIX III

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

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	\$	\$	\$
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
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

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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	\$	\$	\$
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
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

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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	\$	\$	\$
91	2.39	2.19631	0.89018	0.10982
92	2.19	2.02354	0.89882	0.10118
93	2.01	1.86805	0.90660	0.09340
94	1.84	1.71429	0.91429	0.08571
95	1.68	1.56916	0.92154	0.07846
96	1.53	1.43311	0.92834	0.07166
97	1.39	1.30612	0.93469	0.06531
98	1.27	1.19728	0.94014	0.05986
99	1.15	1.08844	0.94558	0.05442
100	1.05	0.99773	0.95011	0.04989

**Table B****Present Value of Annuity or Other Interest for Life  
of FEMALE or Expectant on Death of FEMALE**

Years of Age	Expectation of Life of Female	Present Value of \$1 per Annum	Present Value of \$1 Payable on Death	Present Value of Income on Capital of \$1 for Life
	Years	\$	\$	\$
0	72.43	19.41600	0.02920	0.97080
1	72.90	19.42934	0.02853	0.97147
2	72.05	19.40521	0.02974	0.97026
3	71.12	19.37756	0.03112	0.96888
4	70.18	19.34831	0.03258	0.96742
5	69.23	19.31737	0.03413	0.96587
6	68.26	19.28427	0.03579	0.96421
7	67.30	19.24994	0.03750	0.96250
8	66.33	19.21357	0.03932	0.96068
9	65.35	19.17505	0.04125	0.95875
10	64.37	19.13464	0.04327	0.95673
11	63.39	19.09226	0.04539	0.95461
12	62.41	19.04779	0.04761	0.95289
13	61.42	19.00067	0.04997	0.95003
14	60.44	18.95172	0.05241	0.94759
15	59.47	18.90092	0.05495	0.94505
16	58.50	18.84765	0.05762	0.94238
17	57.53	18.79180	0.06041	0.93959
18	56.56	18.73325	0.06334	0.93666
19	55.60	18.67252	0.06637	0.93363
20	54.64	18.60887	0.06956	0.93044
21	53.67	18.54147	0.07293	0.92707
22	52.71	18.47156	0.07642	0.92358
23	51.75	18.39830	0.08008	0.91992
24	50.79	18.32154	0.08392	0.91608
25	49.83	18.24110	0.08795	0.91205
26	48.87	18.15682	0.09216	0.90784
27	47.92	18.06947	0.09653	0.90347
28	46.96	17.97698	0.10115	0.89885
29	46.01	17.88108	0.10595	0.89405

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	\$	\$	\$
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
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

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	\$	\$	\$
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
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

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	\$	\$	\$
91	2.54	2.32588	0.88371	0.11629
92	2.32	2.13584	0.89321	0.10679
93	2.12	1.96307	0.90185	0.09815
94	1.93	1.79592	0.91020	0.08980
95	1.75	1.63265	0.91837	0.08163
96	1.59	1.48753	0.92562	0.07438
97	1.45	1.36054	0.93197	0.06803
98	1.31	1.23356	0.93832	0.06168
99	1.19	1.12472	0.94376	0.05624
100	1.07	1.01587	0.94921	0.05079

**Table C**

**Present Value of Annuity or Other Interest for Widowhood  
or Expectant on Termination of Widowhood**

Years of Age	Expectation of Widowhood	Present Value of \$1 per Annum For Widowhood	Present Value of \$1 Payable on Termination of Widowhood	Present Value of Income on Capital of \$1 for Widowhood
Years		\$	\$	\$
Up to 20	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

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



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
	\$	\$	\$
26	14.37518	0.28124	0.71876
27	14.64303	0.26785	0.73215
28	14.89813	0.25509	0.74491
29	15.14107	0.24295	0.75705
30	15.37245	0.23138	0.76862
31	15.59281	0.22036	0.77964
32	15.80268	0.20987	0.79013
33	16.00255	0.19987	0.80013
34	16.19290	0.19035	0.80965
35	16.37419	0.18129	0.81871
36	16.54685	0.17266	0.82734
37	16.71129	0.16444	0.83556
38	16.86789	0.15661	0.84339
39	17.01704	0.14915	0.85085
40	17.15909	0.14205	0.85795
41	17.29437	0.13528	0.86472
42	17.42321	0.12884	0.87116
43	17.54591	0.12270	0.87730
44	17.66277	0.11686	0.88314
45	17.77407	0.11130	0.88870
46	17.88007	0.10600	0.89400
47	17.98101	0.10095	0.89905
48	18.07716	0.09614	0.90386
49	18.16872	0.09156	0.90844
50	18.25592	0.08720	0.91280
51	18.33898	0.08305	0.91695
52	18.41807	0.07910	0.92090
53	18.49340	0.07533	0.92467
54	18.56514	0.07174	0.92826
55	18.63347	0.06833	0.93167

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
	\$	\$	\$
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
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

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
	\$	\$	\$
86	19.69887	0.01506	0.98494
87	19.71321	0.01434	0.98566
88	19.72687	0.01366	0.98634
89	19.73987	0.01301	0.98699
90	19.75226	0.01239	0.98761
91	19.76406	0.01180	0.98820
92	19.77529	0.01124	0.98876
93	19.78599	0.01070	0.98930
94	19.79618	0.01019	0.98981
95	19.80589	0.00971	0.99029
96	19.81513	0.00924	0.99076
97	19.82394	0.00880	0.99120
98	19.83232	0.00838	0.99162
99	19.84030	0.00798	0.99202
100	19.84791	0.00760	0.99249



**SECTION 6**

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## ACKNOWLEDGEMENTS

Every attempt has been made to include in this Section, all firms and organisations which have contributed to the 1988 Financial Budget Manual. We apologise to any who have been inadvertently left out.

Ace Products, P.O. Box 9157, HAMILTON.  
Ag-Equipment Specialists Ltd, P.O.Box 25-074, AUCKLAND.  
Agricomputers Limited, P.O. Box 344, CHRISTCHURCH.  
Agrisales (Wrightson Dalgety Ltd), P.O.Box 1895, WELLINGTON.  
AHI Plastic Extrusion, P.O. Box 16-148, CHRISTCHURCH.  
Aitchison Industries Ltd, P.O. Box 27, WANGANUI.  
Alfa-Level, P.O. Box 10-241, Te Rapa, HAMILTON.  
Allflex International, P.O. Box 940, PALMERSTON NORTH.  
Amuri Motors, P.O. Box 825, CHRISTCHURCH.  
Auckland Milk Corporation, AUCKLAND.  
Austin & Jones Irrigation Systems Ltd., P.O. Box 16-2329, HORNBY.  
B.P. Oil NZ Ltd., P.O. Box 784, CHRISTCHURCH.  
Bank of New Zealand, P.O. Box 1461, CHRISTCHURCH.  
Barson Computers Limited, P.O. Box 26287, AUCKLAND.  
BASF New Zealand Ltd, P.O. Box 13-248, CHRISTCHURCH.  
Bayer New Zealand Limited, P.O. Box 38405, PETONE.  
Beatson, K., 4 Rachel Place, Avonhead, CHRISTCHURCH.  
Bell Booth, P.O.Box 9240, Addington, CHRISTCHURCH.  
BH Construction Limited, P.O. Box 7053, HAMILTON.  
Blackwell Motors Ltd., P.O. Box 13-050, CHRISTCHURCH.  
Blue Wing Honda Limited, Private Bag, AUCKLAND.  
Boyes W.D. & Sons, R.D., DARFIELD.  
BP N.Z. Limited, P.O. Box 892, WELLINGTON.  
Briggs Irrigation Limited, P.O. Box 93, ASHBURTON.  
Brownbuilt Building Systems, P.O.Box 7053, HAMILTON.  
C.B.Norwood, 726 Main South Road, CHRISTCHURCH.  
Cable-Price Toyota, 26-28 Tuam Street, CHRISTCHURCH.  
Canterbury Cottage Construction, McLeans Island Road, HAREWOOD.  
Canterbury Dairy Farmers Milk Station Ltd., Blenheim Road, CHRISTCHURCH.  
Canterbury Malting Barley Company, Heathcote, CHRISTCHURCH.  
Canterbury Saleyards, P.O. Box 122, CHRISTCHURCH.  
Case International Harvester, P.O. Box 35-134, NAENAE.  
Cement Products Limited, P.O. Box 5007, PALMERSTON NORTH.  
Central Canterbury Electric Power Board, Private Bag, HORNBY.  
Chamberlain John Deere Pty Limited, 87 Hawthornden Road, CHRISTCHURCH 4.  
Christchurch Press Ltd., CHRISTCHURCH.  
Ciba-Geigy New Zealand Limited, P.O. Box 19109, AUCKLAND.  
Clough W.R. & Sons Ltd., P.O. Box 2018, Washdyke, TIMARU.  
Contractors Federation Inc., P.O. Box 12-013, WELLINGTON.

Coopers Animal Health N.Z. Ltd, Private Bag, UPPER HUTT.  
Croplands Equipment Limited, P.O. Box 14004, WELLINGTON.  
Cyclone-CMI Industries Ltd., P.O. Box 244, CHRISTCHURCH.  
D. McL Wallace Ltd., P.O. Box 12-174, Penrose, AUCKLAND.  
D.H. Brown & Sons Ltd., P.O. Box 242, CHRISTCHURCH.  
D.H. Davies & Co. Ltd., P.O. Box 9173, CHRISTCHURCH.  
Dairy Farm Supplies Ltd., P.O. Box 4068, CHRISTCHURCH.  
Dan Cosgrove Ltd., P.O. Box 211, TIMARU.  
Domett's Lime Co. Limited, P.O. Box 436, FEILDING.  
Dominion Salt, P.O. Box 446, BLENHEIM.  
Donaghys Industries Ltd., P.O. Box 15-007, CHRISTCHURCH.  
Donald Presses Ltd., P.O. Box 138, CHRISTCHURCH.  
Drench Gun Services, P.O.Box 9082, PALMERSTON NORTH.  
Du Pont New Zealand Limited, P.O. Box 76-256, AUCKLAND.  
Economic Laboratory NZ Ltd., P.O. Box 10-061, HAMILTON.  
Econotek Construction Ltd, P.O. Box 3010, NAPIER.  
Ecroyd A. & Sons Ltd., P.O. Box 5056, PAPANUI.  
Eric Wood Suzuki Ltd, P.O. Box 22-416, CHRISTCHURCH.  
Ernest Hayes (NZ) Ltd., P.O. Box 23-024, CHRISTCHURCH.  
Exal Glasshouse Equipment Limited, P.O.Box 7063,  
CHRISTCHURCH.  
Farm Equipment Co. Ltd., P.O. Box 7064, WANGANUI.  
Farmers Fertiliser Ltd., P.O.Box 22-407, AUCKLAND.  
Farmright Industries, P.O. Box 16044, CHRISTCHURCH.  
Federal Motors Ltd., P.O. Box 22-007, CHRISTCHURCH.  
Federated Farmers Ltd., Arable Section, P.O. Box 715,  
WELLINGTON  
Federated Farmers, P.O. Box 945, PALMERSTON NORTH.  
Fieldcraft Systems Limited, 66 Armstrong Street, PALMERSTON  
NORTH.  
FIL Industries Limited, P.O. Box 4114, MT MAUNGANUI.  
Firestone Tyre and Rubber Company of N.Z. Limited, P.O. Box 5012,  
CHRISTCHURCH.  
Ford Motor Company of N.Z. Ltd, Private Bag AUCKLAND.  
Fraemohs Industries Limited, P.O. Box 989, CHRISTCHURCH.  
Freightways International Ltd., P.O.Box 14005, CHRISTCHURCH.  
Gallagher Group of Companies, Private Bag, HAMILTON.  
Garth D.Stewart, P.O. Box 29, Wyndham, SOUTH LAND.  
GEC New Zealand Limited, P.O. Box 50244, PORIRUA.  
Giltrap Machinery Limited, P.O. Box 16302, CHRISTCHURCH.  
Gough Gough & Hamer Limited, P.O. Box 16168, CHRISTCHURCH.  
Halkett Nursery, Halkett Rd, West Melton, R.D. 1, CHRISTCHURCH.  
Harrison Trees, 153 Te Awe Awe Street, PALMERSTON NORTH.  
Hautama Lime Co. Limited, Marakeke Road, R.D. 1, WAIPUKURAU.  
Helicopters (NZ) Ltd., Private Bag, NELSON.  
Hickson's Timber Impregnation Co. N.Z. Limited, 111 Wrights Road,  
CHRISTCHURCH.

Hollands Motorcycles Ltd. 2-4 Shakespeare Rd. CHRISTCHURCH.  
Horowhenua County Council, P.O. Box 542, LEVIN.  
Howard Rotavators Co. Ltd., P.O. Box 30-233, LOWER HUTT.  
Hubbards Machinery Limited, P.O. Box 141, ASHBURTON.  
Hume Industries N.Z. Ltd, P.O. Box 402, PALMERSTON NORTH.  
Hurricane Wire Products Limited, P.O.Box 1153, CHRISTCHURCH.  
Hydes Distributors, P.O. Box 344, ASHBURTON.  
ICI Rural Division, P.O. Box 900, AUCKLAND.  
International Trucks Ltd., P.O. Box 11-123, CHRISTCHURCH.  
Ivon Watkin-Dow Ltd, P.O. Box 144, NEW PLYMOUTH.  
Jolly Windmill Co. Limited, P.O. Box 15-560, AUCKLAND.  
Kellogg Farm Management Unit, LINCOLN COLLEGE.  
Kevin Daly Ltd., 234 Riccarton Road, CHRISTCHURCH.  
Lees Industries South Island Ltd., P.O.Box 29, RANGIORA.  
Lincoln College Farm Advisory Service, LINCOLN COLLEGE.  
Lincoln College Property Management Service, LINCOLN COLLEGE.  
Lincoln Electric Co (NZ) Ltd., P.O. Box 19-273, AUCKLAND 7.  
Lincoln Veterinary Clinic, Gerald Street, LINCOLN.  
Livestock Improvement Association, P.O. Box 32-023,  
LINWOOD.  
M.J. McKendry, P.O. Box 10-000, CHRISTCHURCH.  
MAFCORP (Economics), CHRISTCHURCH. (Mr K.Ross)  
MAFTECH, LINCOLN.  
Malvern County Council, P.O. Box 1, DARFIELD.  
Manawatu Co-op Dairy Co., PALMERSTON NORTH.  
Manawatu County Council, Sanson, MANAWATU.  
Manawatu-Oroua Electric Power Board, Private Bag, PALMERSTON  
NORTH.  
May & Baker, P.O. Box 35-060, NAENAE.  
Mazda Motors of N.Z. Limited, P.O. Box 22-472, AUCKLAND.  
McAlpines Limited, P.O. Box 107, RANGIORA.  
McCulloch Chainsaw Centre, 254 St Asaph Street, CHRISTCHURCH.  
McDonald's Lime Limited, P.O. Box 50, OTORAHANGA.  
McMeekan Centre, R.D.4, CHRISTCHURCH.  
McMillan's Water Wells, High Street, SOUTHBRIDGE.  
McVicar Timber Group Ltd., P.O. Box 5028, CHRISTCHURCH.  
Meat Services Ltd., P.O.Box 28, BELFAST.  
Millichamps Nurseries, ASHBURTON.  
Ministry of Energy, Private Bag, WELLINGTON.  
Ministry of Works and Development, P.O. Box 1479,  
CHRISTCHURCH.  
Mogal Coolstores, P.O. Box 14063, CHRISTCHURCH.  
Moller Yamaha Limited, Private Bag Panmure AUCKLAND 6.  
Monsanto (NZ) Ltd, Private Bag, Johnsonville, WELLINGTON.  
Mower Warehouse Limited, P.O. Box 975, PALMERSTON NORTH.  
MSD AgVet Division, P.O. Box 23-244, Papatoetoe, AUCKLAND.  
N.Z. Fruitgrowers Federation Inc.

N.Z. Labour Department, CHRISTCHURCH.  
N.Z. Motor Corporation Ltd, P.O. Box 2599, WELLINGTON.  
N.Z. Post. Lincoln College Branch, LINCOLN COLLEGE.  
N.Z. Railways, P.O. Box 337, CHRISTCHURCH.  
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New Zealand Farmer.  
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Nissan New Zealand Limited, P.O. Box 61-133, AUCKLAND.  
North Canterbury Catchment Board, P.O. Box 788, CHRISTCHURCH.  
Nu Pulse New Zealand Limited, P.O. Box 11-044, CHRISTCHURCH.  
Paparua County Council, P.O. Box 11-011, SOCKBURN.  
Palmerston North City Corporation, Private Bag, PALMERSTON  
NORTH.  
Permathene Plastics Limited, P.O. Box 71-015, AUCKLAND.  
Pierson N.A. Ltd, Wairaki Road, CHRISTCHURCH.  
Profile Buildings Ltd, SOCKBURN.  
Pfizer Laboratories Limited, P.O. Box 3998, AUCKLAND.  
Pyne Gould Guinness Ltd., LINCOLN.  
Railfreight Systems, Private Bag, WELLINGTON.  
Ravensdown Fertiliser, P.O. Box 16-081, HORNBY.  
Remote Control Systems Ltd., P.O. Box 29-023, CHRISTCHURCH.  
Rohm and Haas N.Z. Limited, P.O. Box 22-220, AUCKLAND.  
Rowley Aviation Ltd., AMBERLEY.  
Rural Banking and Finance Corporation, CHRISTCHURCH.  
Shell Chemicals, Agrochemicals Division, P.O. Box 2091,  
WELLINGTON.  
Simes W.E. and Co., P.O.Box 13341, CHRISTCHURCH.  
Solo Power Products, P.O. Box 5395, FRANKTON.  
Southern Cross, P.O. Box 379, ASHBURTON.  
State Insurance Office, P.O. Box 1845, PALMERSTON NORTH.  
Suzuki (N.Z.) Limited, Private Bag, WANGANUI.  
Syntex Laboratories (N.Z.) Ltd, P.O. Box 58117, AUCKLAND.  
Taega Engineering, Sheffield, CANTERBURY.  
Talbot Plastics Ltd., P.O. Box 9148, CHRISTCHURCH.  
Tauranga Nurseries, No. 2 R.D., Te Puna, TAURANGA.  
Taylor's Lime Co. Limited, P.O. Box 31, OAMARU.  
The Helicopter Line, P.O.Box 35, Pleasant Point, SOUTH  
CANTERBURY.  
Toyota New Zealand Limited, P.O. Box 13-149, Johnsonville,  
WELLINGTON.  
Trimax Industries Ltd, P.O.Box 2150, TAURANGA.  
Trustee Bank Canterbury, CHRISTCHURCH.  
Tulloch Farm Machines Ltd, P.O. Box 200, MASTERTON.  
Tunnel World, P.O.Box 16-418, HORNBY.  
Waimea Nurseries, Golden Hills Road, R.D. 1, Richmond, NELSON.  
Wattie J. Canneries Ltd., CHRISTCHURCH.  
Wattie J. Foods Ltd., FEILDING



Webbing & Stewart Limited, P.O. Box 38-570, PETONE.  
Whiterock Lime Co Ltd., Whiterock, R.D. 2, LOBURN.  
Winstone F.M.Ltd. CHRISTCHURCH.  
Wormald Stero Safety Limited. P.O. Box 10-002, CHRISTCHURCH.  
Wrightson Dalgety, CHRISTCHURCH. (Mr P.V.Shannon)  
Wrightson Dalgety, LINCOLN.  
Wrightson Dalgety, Grain and Seed Division, CHRISTCHURCH.  
Yates N.Z. Ltd., P.O. Box 8025, RICCARTON.



