

Lincoln College Department of Farm Management and Rural Valuation



Farm Budget Manual Part 2 Financial 1975



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Preface

This booklet, the second of a two part Lincoln College Farm Budget Manual is revised and published annually. Its companion volume (Part 1 Technical) is revised biennially. Whilst no claim is made that the contents are exhaustive, they are, we feel quite comprehensive.

Unless otherwise stated users of this booklet should assume that all prices quoted are as at 1 January, 1975.

A number of people have made contributions to this booklet but three people deserve special mention. Firstly, Mr. B. Brook for his conscientious work in revising the whole booklet, and secondly Mr. J. Bennett of Lincoln College, Mr. K.L. Goldstone and members of the Inland Revenue Department for the work they have put into the Tax Section.

Neil G. Gow
Senior Lecturer in Farm Management
EDITOR
March 1975

‘Annual income twenty pounds, annual expenditure,
nineteen, nineteen, six, results happiness.

Annual income twenty pounds, annual expenditure,
twenty pounds, nought and six, result misery.’

MR MICAWBER in David Copperfield

In an era of increasing sophistication in farm management analytical techniques the budget remains the simplest and yet most versatile technique available to the farmer and his adviser. Essentially a farm budget is a written plan which formalizes an anticipated farm programme and translates it into expected financial results.

The final form of any budget will depend on the purpose for which it is to be used and the vocation and point of view of the person doing it. Thus budgets produced for the same farmer by his farm adviser and his accountant might vary quite markedly in approach and presentation. A demonstration of this can be seen by comparing the three budget layouts reproduced in the next section of this manual. All three have been designed to serve slightly different ends and thus no single one is superior to the others for all uses.

The Lincoln College budget is designed primarily as a teaching aid and thus lays considerable emphasis on formalizing the farm programme for the budget year. The Society of Accountants budget on the other hand is designed for use by accountants whose main interest lies in the finances of the farm rather than the details of the farm programme. Both of these budget layouts contain too much detail for some purposes, and for some people. The third budget—that used by the Omeheu Demonstration Farm is an example of a budget layout reduced to its bare bones. For a seasonal supply dairy farm with only a small number of variables to be considered it is quick to use and easy

to understand. In addition to the three layouts reproduced in this manual there are many more in use servicing the agricultural sector.

The general layout of this manual follows the layout of the Lincoln College budget. Sections I and III are devoted to the revenue and expenditure data required to convert a physical programme into a financial one. Section III contains some relevant notes on taxation as applied to farming enterprises. In the final section a considerable number of gross margins have been reproduced for the benefit of those people who may be interested in analysing individual enterprises.

LINCOLN COLLEGE
Department of Farm Management and Rural Valuation
FARM BUDGET

Name: Frederick J. Tilly

Year Ending: 30th June, 1975

Address:

Date: 30th April, 1974

CAPITAL INVOLVED

\$

| | | |
|----------------|-----------------|--------|
| LAND Pdk Value | 52 ha at \$700 | 36,400 |
| | 162 ha at \$460 | 74,240 |
| | <u>214 ha</u> | |

Buildings 9,360

TOTAL F.S.V. \$120,000

Value \$561 per ha

\$ 60 per E.E.

STOCK as at 1st July 1973

| E.E. | Numbers | | \$(F.S.V.) |
|------|---------|-------------------------------|------------------|
| 1839 | 2055 | Sheep | 12,666 |
| 160 | 40 | Cattle | 1,400 |
| | | Pigs | |
| | | Other | |
| 1999 | 2095 | TOTAL STOCK | \$ 14,066 |
| | | TOTAL PLANT | \$ 3,380 |
| | | WORKING CAPITAL | \$ 5,000 |
| | | TOTAL CAPITAL INVOLVED | \$142,446 |

STOCK PERFORMANCES

| | | | |
|------------------------------------|--------|-------------|--------|
| Ewes to breeding ram | 850 | Deaths ewes | 5% |
| Ewes to export lamb sire | 850 | hoggets | 3% |
| Lambing S/Sale | 110% | cattle | —% |
| Export lambs 60% F.O.M. by .././.. | | Calving | —% |
| 10% 2nds | | | |
| 12.7 kg av. wgt. | | Butterfat | |
| 83 kg per ha. | | per cow | kg |
| | | per acre | kg |
| Wool Weights per Head | | litres milk | |
| ewes | 4.5 kg | per cow | litres |
| hoggets | 3.2 kg | per acre | litres |
| rams | 5.0 kg | | |
| others | 1.5 kg | | |
| Wool shorn per ha. | 46 kg | | |

SCHEDULE OF DEPRECIATION

| DESCRIPTION | F.S.V. or Book Value to start year | Additions During year | Current Years Depreciation | | Amount | Book Value at end |
|--|--|-----------------------------|----------------------------|---------|--------|-------------------------|
| | | | Ordinary Rate | Special | | |
| MOTORIZED | | | | | | |
| Fordson Tractor | 1200 | | 20% | | 240 | 960 |
| Fergusson and Tray | 300 | | 20% | | 60 | 240 |
| NON- MOTORIZED | | | | | | |
| Front end loader | 150 | | 10% | | 15 | 135 |
| Grubber | 150 | | 10% | | 15 | 135 |
| Chisel Plough | 350 | | 10% | | 35 | 315 |
| Drill | 200 | | 10% | | 20 | 180 |
| Discs | 100 | | 10% | | 10 | 90 |
| 2 sets Harrows | 80 | | 10% | | 8 | 72 |
| Roller | 100 | | 10% | | 10 | 90 |
| Mower | 100 | | 20% | | 20 | 80 |
| Hay Rake | 150 | | 10% | | 15 | 135 |
| Trailer | 100 | | 10% | | 10 | 90 |
| Shearing Plant | | | | | | |
| 2 stand,electric, grinder, wool press, table | 300 | | 10% | | 30 | 270 |
| Tools | 100 | | 10% | | 10 | 90 |
| TOTAL PLANT | 3380 | | | | 498 | 2882 |
| BUILDINGS | | | | | | |
| Cost Price | | | | | | |
| Homestead | 5000 | | 2½% | | 125 | 4875 |
| Other Bldgs | 4360 | | 2½% | | 109 | 4251 |
| TOTAL BUILDINGS | 9360 | | | | 234 | 9126 |
| TOTAL PLANT AND BUILDINGS DEPRECIATION | | | | | 732 | |
| ADJUSTMENTS | Less Proportion of Car or Truck Charged to Personal Less Proportion of Homestead Charged to Personal ¾— | | | | | 94 |
| TOTAL DEPRECIATION CHARGE TO FARM WORKING ACCOUNT | | | | | 638 | |

SHEEP ACCOUNT

Year Ending 30th June, 1975

| E.E. | Stock | No. | Head | Total\$ | Head | Total\$ | Stock | No. | Head | Total\$ | Total\$ |
|------|-----------------|------|-------|---------|------|---------|------------------|------|------|------------|---------|
| 1530 | Ewes | 1700 | 5.50 | 9350 | 3.00 | 5100 | Ewes | 1700 | 5.50 | 9350 | 5100 |
| 270 | Ewe Hoggets | 450 | 7.00 | 3150 | 3.00 | 1350 | Ewe Hoggets | 450 | 7.00 | 3150 | 1350 |
| 15 | Wether Hoggets | 25 | 4.00 | 100 | 3.00 | 75 | Wether Hoggets | 25 | 4.00 | 100 | 75 |
| | Wethers | | | | | | Wethers | | | | |
| 17 | Rams | 22 | 3.00 | 66 | 3.00 | 66 | Rams | 22 | 3.00 | 66 | 66 |
| 1832 | TOTAL SHEEP | 2197 | | 12666 | | 6591 | TOTAL SHEEP | 2197 | | 12666 | 6591 |
| ∞ | Purchases | | | | | | Sales | | | | |
| | Rams | 6 | 50.00 | 300 | | | 2T Ewes | 56 | 7.50 | 420 | |
| | | | | | | | Cull Ewes | 291 | 2.50 | 728 | |
| | | | | | | | Lambs | 1395 | 6.50 | 9068 | |
| | | | | | | 300 | | | | | |
| | TOTAL PURCHASES | 6 | | 300 | | 6891 | TOTAL SALES | 1742 | | 10216 | 10216 |
| | Nat. Increase | 1870 | | | | 9916 | Killed | 35 | | GROSS LOSS | |
| | | | | | | | Deaths & Missing | 99 | | | |
| | TOTALS | 4073 | | | | 16807 | TOTALS | 4073 | | | 16807 |

BEEF CATTLE ACCOUNT

| E.E. | Opening Stock | No. | F.S.V. | | Std V. | | Closing Stock | F.S.V. | | Std V. | |
|-----------------|------------------|-----|--------------|-------|--------|-------|------------------|--------|------------|--------|-------|
| | | | Head | Total | Head | Total | | No. | Head | Total | Total |
| — | Breeding Cows | — | — | — | — | — | Breeding Cows | | | | |
| — | R.W.B.Heifers | — | — | — | — | — | R.W.B. Heifers | | | | |
| — | Rsg 2yr Hfs | — | — | — | — | — | Rsg 2yr Hfs | | | | |
| 160 | Rsg 1yr Hfs | 40 | 35.00 | 1400 | 20.00 | 800 | Rsg 1yr Hfs | 40 | 35.00 | 1400 | 800 |
| | Rsg 2yr Strs | — | | | | | Rsg 2yr Strs | | | | |
| | Rsg 1yr Strs | | | | | | Rsg 1yr Strs | | | | |
| | Bulls | | | | | | Bulls | | | | |
| | TOTAL | | | | | | TOTAL | | | | |
| | CATTLE | 40 | | 1400 | | 800 | CATTLE | 40 | | 1400 | 800 |
| | Purchases | | | | | | Sales | | | | |
| | Weaner Hfs | 40 | 35.00 | 1400 | | | Veal Hfs | 40 | 38.00 | 1520 | |
| | | | | | | | 410 kg @ 51% | | | | |
| | | | | | | | = 209 kg @ | | | | |
| | | | | | | | \$0.18c/kg | | | | |
| | | | | | | 1400 | | | | | |
| TOTAL PURCHASES | | 40 | | 1400 | | 2200 | TOTAL SALES | 40 | | 1520 | 1520 |
| | Nat. Increase | — | GROSS PROFIT | | | 120 | Deaths & Missing | — | GROSS LOSS | | |
| | TOTALS | 80 | | | | 2320 | TOTALS | 80 | | | 2320 |

BEEF CATTLE ACCOUNT

PADDOCK UTILIZATION YEAR 1974/75

| Pdk No. | Area (ha) | Condition | Programme | Yield | | Seeds | | Lime | | Manure | |
|---|-----------|--------------------------|---------------------|--------|--------|--------|---------|------|-------|--------|-------------|
| | | | | Ha. | Total | Ha. | Total | Ha. | Total | Ha. | Total |
| 1 | 3.2 | Lucerne | — | 100 | 320 | — | — | | | 188kg | 602kg S.S. |
| 1a, 10, 14, 16, 17,19, 20,21, 22,23, 25 | 101.2 | Grass | — | — | — | — | — | | | 188kg | 19.03t S.S. |
| 2 | 9.3 | Turnips & Tama | Greenfeed — Italian | — | — | 22.4kg | 208.3kg | | | 188kg | 1.75t S.S. |
| 3 | 5.7 | New Lucerne | — | 100 | 570 | — | — | | | 188kg | 1.07t S.S. |
| 4 | 6.5 | Lucerne & Prairie Grass | — | — | — | — | — | | | 188kg | 1.22t S.S. |
| 5 | 10.0 | Mapua Oats | Lucerne | — | — | 10.0kg | 100.0kg | 2.5t | 25t | 188kg | 1.89t S.S. |
| 6 | 4.9 | Lucerne | — | 100 | 490 | — | — | | | 188kg | 921kg S.S. |
| 7 | 4.1 | New Grass & Turnips | Grass | — | — | — | — | | | 188kg | 771kg S.S. |
| 8 | 5.7 | Lucerne | — | 100 | 570 | — | — | | | 188kg | 1.07t S.S. |
| 9 | 4.5 | Poor Grass | Turnips | — | — | 0.56kg | 2.5kg | | | 125kg | 563kg S.P. |
| 11 | (4.1) | (Tama Green-feed) | | | | | | | | | |
| | 8.2 | (barley-tama) | | 3360kg | 27.55t | 140kg | 1.15t | | | 250kg | 2.06t S.P. |
| | (4.1) | (Turnips & Greenfeed) | | | | 3.4kg | 27.6kg | | | | |
| 12 | 2.0 | Prairie Grass O/D Ruanui | — | — | — | — | — | | | 188kg | 376kg S.S. |
| 13 | 1.6 | Greenfeed | New Grass | — | — | — | — | | | 188kg | 301kg S.S. |

Paddock Utilization Year 1974/75 (Continued)

| Pdk No. | Area (ha) | Condition | Programme | Yield | | Seeds | | Lime | | Manure | |
|------------|-----------|----------------------------|---------------------|-------|-------|--------|--------|------|-------|--------|------------|
| | | | | Ha. | Total | Ha. | Total | Ha. | Total | Ha. | Total |
| 15 | 4.1 | Prairie Grass | — | — | — | — | — | — | — | 188kg | 771kg |
| 18 | 5.0 | New Grass (overdrilled) | — | — | — | — | — | — | — | 188kg | 940kg S.S. |
| 24a | 8.1 | Poor Grass | Turnips- Lucerne | — | — | 0.56kg | 4.54kg | 2.5t | 20.3t | 125kg | 1.01t S.P. |
| 24b | 9.7 | Lucerne & Prairie Grass | — | — | — | — | — | — | — | 188kg | 1.82t S.S. |
| | 2.8 | Low paddock | | | | | | | | | |
| | 1.2 | Plantation | | | | | | | | | |
| | 2.4 | House, yards | | | | | | | | | |
| | 13.8 | Waste | | | | | | | | | |

SUMMARIES

Fertilizer Type tonnes at \$

| | | |
|-------------------|------|---------|
| Superphosphate | 3.56 | \$26.10 |
| Sulphur Super 400 | 32.5 | \$28.85 |
| Lime | 45.8 | \$ 3.50 |

Grass Seed Mixtures/ha

| | |
|-----------|--------------------|
| New Grass | 28kg Ruanui |
| | 4.5kg Coxfoot |
| | 3.4kg White Clover |
| | 2.2kg Red Clover |

Crop Rotation

LAND UTILIZATION – FEED SUPPLY

Winter 1974 May – August

Lambing Feed

| Ha | Crop | Carrying Capacity | Total E.E. | Carrying Capacity | Total E.E. |
|------------|-----------------------------|----------------------------------|------------|-------------------|------------|
| 13.4 | Turnips and Tama | 54 | 725 | | — |
| 15.8 | Greenfeed | — | — | 2.4ha/100 ewes | 650 |
| 4.9 | New Grass | — | — | 1.6ha/100 ewes | 300 |
| 5.7 | New Lucerne | — | — | — | — |
| 13.8 | Lucerne | 2.5 | 34 | — | — |
| 16.6 | Lucerne and Prairie Grass | — | — | 3.2ha/100 ewes | 513 |
| 4.1 | Prairie Grass | — | — | 3.2ha/100 ewes | 125 |
| 2.0 | Prairie Grass and New Grass | — | — | 2.0ha/100 ewes | 100 |
| 4.1 | New Grass and Turnips | — | — | — | — |
| 1500 Bales | Lucerne Hay @ 40/tonne | 10/tonne | 375 | — | — |
| 80.9 | Good Pasture | 7.4 | 600 | — | — |
| 12.6 | Poor Pasture | 2.5 | 31 | — | — |
| 16.2 | A.S.P. | 20 | 324 | — | — |
| 4.1 | A.S.P. | — | — | 2.4ha/100 ewes | 170 |
| 214 | TOTAL | TOTAL FEED AVAILABLE 2090 | | TOTAL 1858 | |

Winter Stock Requirements

1999 E.E.

Lambing Requirements 1700 E.E.

LAND UTILIZATION – FEED SUPPLY (Continued)

Spring 1974 September – December

Lamb Fattening Feed

| Ha. | Crop | Carrying Capacity | Total E.E. | Carrying Capacity | Total E.E. |
|-------|---------------------------------|----------------------|--------------------------|---------------------------|------------|
| 8.1 | Ex turnips, greenfeed to barley | — | — | — | — |
| 10.0 | Oats to lucerne | — | — | — | — |
| 9.3 | Turns to greenfeed | — | — | — | — |
| 19.4 | Lucerne | — | — | 24.5 lambs/ha | 475.0 |
| 16.6 | Lucerne and Prairie Grass | 24.5 | 406 | — | — |
| 4.1 | Prairie Grass | 15.0 | 62 | — | — |
| 2.0 | Prairie Grass and Ruanui | — | — | 15 lambs/ha | 30 |
| 1.6 | Tama to New Grass | — | — | — | — |
| 4.1 | New Grass to Turnips | — | — | 15 lambs/ha | 62 |
| 106.0 | Good Pasture | 15.0 | 1590 | — | — |
| 12.6 | Poor Pasture | 7.4 | 93 | — | — |
| 2.9 | Cow Paddock | | | | |
| 1.2 | Plantation | | | | |
| 2.4 | House and Yards | | | | |
| 13.8 | Waste | | | | |
| 214 | TOTAL | TOTAL FEED AVAILABLE | 2151 | | |
| | | | | Total Lamb Fattening Feed | 567 |
| | Spring stock requirements | | 1999 E.E.Lambs to Fatten | | 561 |

INCOME

| | CASH | TAXATION |
|--|-------|----------|
| STOCK: | | |
| Sheep Sales | 10216 | — |
| Sheep Gross Profit | — | 9916 |
| Cattle Sales | 1520 | — |
| Cattle Gross Profit | — | 120 |
| Pig Sales | — | — |
| Pig Gross Profit | — | — |
| WOOL: | | |
| 1700 ewes @ 4.5kg=7713kg | | |
| 450 Hoggets @ 3.2kg=1440kg | | |
| 22 Rams @ 3.6kg= 80kg | | |
| 460 lambs @ 1.4kg= 625kg | | |
| Total 9858kg | | |
| Yield of clean wool = 69% | | |
| Total 6802 kilos@\$1.38 per kilo clean | 9365 | 9365 |
| (\$0.95 per kilo greasy) | | |
| CROPS: | | |
| Ha. Yield Price | | |
| Wheat | | |
| Barley 8.1 27.2 93.00 | 2530 | 2530 |
| tonne tonne | | |
| Peas | | |
| Potatoes | | |
| Other | | |
| SMALL SEEDS: | | |
| Ryegrass | | |
| Clover | | |
| Cocksfoot | | |
| Other | | |
| DAIRY PRODUCE: | | |
| Butterfat kg per kg | | |
| Milk litres at per litre | | |
| GRAZING SOLD | | |
| OTHER FARM INCOME: | | |
| Petrol Rebates | 50 | 50 |

INCOME (Continued)

| | CASH | TAXATION |
|--------------------------------|--------------|-----------------|
| NET FARMING LOSS | | |
| CASH FARM INCOME | 23681 | |
| TOTAL GROSS FARM INCOME | | 21981 |

EXPENDITURE

| | CASH | TAXATION |
|--|------|----------|
| WORKING EXPENSES: | | |
| Wages — Manager | | |
| — Permanent | | |
| — Casual | 600 | 600 |
| Animal Health — Dip Drench | 487 | 487 |
| — Vet other | | |
| Breeding Expenses — A.R. Herd Testing | | |
| Cash Cropping — Heading, sacks and Twine | 451 | 451 |
| Dressing and Cert. | | |
| Cultivation Contracts — Bulldozing | | |
| — Gorse Cutting | | |
| Dairy Shed Expenses | | |
| Electricity | 250 | 100 |
| Feeds — Concentrates, | | |
| Baling Grazing | 734 | 734 |
| Freight — N.E.I. | 100 | 100 |
| Fertilizer 1. | 93 | 93 |
| 2. | 938 | 938 |
| 3. | | |
| Freight and Spreading | 254 | 254 |
| Lime | 420 | 420 |
| Seeds 1. Crop | 446 | 446 |
| 2. Pasture | 198 | 198 |
| Shearing Expenses — Wages | 833 | 833 |
| Packs, General | 107 | 107 |
| Trees | | |

| EXPENDITURE (continued) | | CASH | TAXATION |
|------------------------------|-------------------|-------|----------|
| Water charges | | 150 | 150 |
| Weed and Pest Control | | | |
| Repairs and Maintenance: | Dwellings | 100 | 100 |
| | Other buildings | 225 | 225 |
| | Fences, Water | | |
| | Supply | 220 | 220 |
| | Plant | 100 | 100 |
| Vehicle Expenses | — Car | 975 | 730 |
| | Tractor Truck | 375 | 375 |
| | Header Baler | | |
| | Fuel | 750 | 750 |
| | Registration | 50 | 50 |
| ADMINISTRATIVE EXPENSES | | | |
| Accountancy and legal | | 160 | 160 |
| F.A.S. | | 200 | 200 |
| Telephone and Mail | | 102 | 102 |
| STANDING CHARGES | | | |
| Hire Purchase | | | |
| Insurance | | 55 | 55 |
| Rates | | 300 | 300 |
| Interest O/D | | 320 | 320 |
| Mortgage | | 2402 | 2402 |
| Rent | | | |
| Stock Purchases | Sheep 6 rams | 300 | — |
| | Cattle 40 weaners | 1400 | |
| Selling Charges | Stock | — | — |
| | Wool Crop | 640 | 640 |
| Freight Income Items | Stock | — | — |
| | Wool Crop | | |
| TOTAL CASH FARM EXPENDITURE | | 14735 | |
| Depreciation | | | 638 |
| TOTAL DEDUCTIBLE EXPENDITURE | | | 13278 |
| NET FARMING PROFIT | | | 8703 |
| TOTAL GROSS FARM INCOME | | | 21981 |

BUDGET ASSESSMENT

| | | |
|----|---|---------|
| 1. | Taxation Reconiliation | |
| | Net farming profit | 8703 |
| | Plus non-farming income | — |
| | Total Assessable Income | \$ 8703 |
| | Less Exemptions | |
| | — Deductible Expenses Allowances | 50 |
| | — Deductible Insurance | 500 |
| | — Deductible Donations and School Fees | 100 |
| | Total Exemptions | \$ 650 |
| | TOTAL INCOME | \$ 8053 |
| | Tax payable on Taxable Income is | 2623 |
| | Less Tax Rebates | |
| | — Personal | 125 |
| | — Wife | 125 |
| | — Housekeeper | |
| | — Dependant Relative | |
| | Total Rebates | \$ 250 |
| | Final Taxation Liability | \$ 2373 |
| 2. | Cash Flow Statement | |
| | Total cash farming income | 23681 |
| | Less cash farming expenditure | 14735 |
| | Cash Farm Surplus | 8946 |
| | Plus additional non-farming cash receipts | |
| | Plus capital inputs | |
| | Total Disposable Cash | \$ 8946 |
| | Less Cash Disposition | |
| | 1. Personal — Taxation | 16588 |
| | Cash Drawings | 4800 |
| | Personal Insurance | 500 |
| | School Fees | |
| | Donations | 100 |
| | Total Personal Expenses | \$21988 |

| | |
|--|----------|
| 2. Capital Expenses | |
| – Principal Repayment S.A.C. | \$ 1,030 |
| – Capital Additions | \$ — |
| – Non-farming Investment | \$ — |
| Total Capital Expenses | \$ 1,030 |
| TOTAL CASH DISPOSITION | \$23,018 |
| Leaves deficit on years trading of | \$14,072 |
| For comments on budget and results see attached pages. | |

Notes on Taxation Payment —

The 1974/75 provisional tax liability will be assessed from the 1973/74 income which in this case was \$27,041.

Income tax payable on a taxable income of \$27,041 is \$12,068. During 1974/75 therefore, if no estimate is made, provisional tax of \$4,023 (1/3) will be payable by September 7, 1974 and \$8,045 (2/3) will be payable by March 7, 1975, together with any terminal tax payable from the 1973/74 income year, in this case amounting to \$4,520.

The farmer could reduce the cash drain by paying provisional tax on an estimate of 1974/75 income, rather than on the actual 1973/74 income.

See 'Notes on Taxation' for further details.

BUDGET SUMMARY SHEET

| | Cash | Tax'n | | | Cash | Tax'n |
|-----------------------------------|------|-------|---------------------------------|-------|------|-------|
| 1. WORKING EXPENSES | | | 1. STOCK PROCEEDS | | | |
| (a) Wages | 600 | 600 | (a) Sheep | | | |
| (b) Animal Health | 487 | 487 | Gross Profit | — | 9916 | |
| (c) Breeding | | | Cash Sales | 10216 | | |
| (d) Cash Cropping | 451 | 451 | | | | |
| (e) Cultivation con'ts | | | (b) Cattle | | | |
| (f) Dairy Shed Exp | | | Gross Profit | | 120 | |
| (g) Electricity | 250 | 100 | Cash Sales | 1520 | | |
| (h) Feed | 734 | 734 | | | | |
| (i) Freight (N.E.I.) | 100 | 100 | | | | |
| (j) Fertiliser | 1031 | 1031 | 2. WOOL | | | |
| (k) Lime | 674 | 674 | | | | |
| (l) Seeds | 644 | 644 | | | | |
| (m) Shearing Expenses | 940 | 940 | | | | |
| (n) Trees | | | | | | |
| (o) Water and Irrigation | 150 | 150 | | | | |
| (p) Weed and Pest Control | | | | | | |
| | | | Total 6802 kilos at ave. \$1.38 | 9365 | 9365 | |
| 2. REPAIRS AND MAINTENANCE | 645 | 645 | | | | |
| 3. VEHICLE EXPENSES | 2150 | 1905 | 3. CROPS AND SMALL SEEDS | | | |
| | | | Type Yield Price | | | |
| 4. ADMINISTRATION | 462 | 462 | Barley 27.2 tonne \$93.00 | 2530 | 2530 | |

BUDGET SUMMARY SHEET (continued)

| | Cash | Tax'n | | Cash | Tax'n |
|-------------------------------------|-------|-------|-----------------------------|-------|-------|
| 5. STANDING CHARGES | | | | | |
| (a) Hire Purchase | | | | | |
| (b) Insurance | 55 | 55 | | | |
| (c) Land Tax | | | | | |
| (d) Rates | 300 | 300 | | | |
| (e) Interest | 2722 | 2722 | | | |
| (f) Rent | | | | | |
| 6. DEVELOPMENT | | | | | |
| (a) Total Development | | | | | |
| (b) Allowable only | | | | | |
| 7. STOCK PURCHASES | | | 4. DAIRY | | |
| Sheep 300 | 300 | | Kilos B'fat at | | |
| Cattle 40 | 1400 | | litres milk at | | |
| 8. SELLING CHARGES | 640 | 640 | 5. OTHER FARM INCOME | | |
| | | | Petrol Rebates | 50 | 50 |
| 9. FREIGHT (Inc. Items) | | | | | |
| TOTAL CASH FARM EXPENSES | 14735 | | | | |
| Depreciation | | 638 | | | |
| TOTAL DEDUCTIBLE EXPENDITURE | | 13278 | TOTAL CASH INCOME | 23681 | |
| CASH FARM SURPLUS | | 8946 | | | |
| NETT FARMING PROFIT | | 8703 | GROSS FARMING PROFIT | | 21981 |

BUDGET WORKSHEETS (A)

1. Working Expenses

(a) Wages Manager

| | | | | | | | |
|---------|-----------|--|----|------------------|--|------|-----|
| General | Permanent | | 10 | weeks at \$ | | week | |
| | Casual | | | weeks at \$60.00 | | week | 600 |
| | Other | | | weeks at \$ | | | |

(b) Animal Health

| | | |
|-------------------|---|---|
| Vet Fee | = | — |
| Plus visits at \$ | = | — |

SHEEP

| | | | |
|--------------|-----------------|-------|-----|
| Dipping 2200 | sheep at \$0.10 | /head | 220 |
| Drenching | ewes at | /head | |
| 3 x 450 = | 1500 lambs at | | |
| | \$0.07 | /head | 105 |

| | | | |
|-----------------|-----------------|-------|-----|
| Vaccin'n | Sheep at | /head | |
| 1870 | Lambs at \$0.06 | /head | 112 |
| Docking Rings 4 | Pkts \$3.97 | /Pkt | 16 |
| Ear Tags | at | /100 | |
| Footrot | | C/F | 453 |

CATTLE

| | | | |
|--------------|------------------|-------|----|
| Spraying 40 | Cattle at \$0.45 | /head | 18 |
| Drenching 40 | Cattle at \$0.40 | /head | 16 |

| | | | |
|----------|-----------|-------|--|
| Vaccin'n | Cattle at | /head | |
|----------|-----------|-------|--|

DAIRY

| | | | |
|---------------|---------|-------|--|
| Vaccin'n | Cows at | /head | |
| Bloat Control | | | |
| Sundry | | | |

487

(d) Cash Cropping Expenses

| | | | | | |
|--------------------|-------------------|----|--------|---|----|
| (1) Spraying | 8.09 ha of barley | at | \$7.00 | = | 60 |
| (W & P Control) | ha of | at | | = | |
| in S/S & Cash Crop | ha of | at | | = | |

BUDGET WORKSHEETS (continued)

| | | | | | | |
|-------|---------------------------------|-------------------|-----------------------------|--------------------|----|-------|
| (II) | Contract Harvesting | 8.09 | ha of barley (22.69 tonnes) | at \$1.15/100 kg | = | \$260 |
| | | | | at | = | |
| (III) | Sacks | 1170mm | 400 | at \$0.15 | = | 60 |
| | | 1220mm | | at | | |
| | In cartage | | | bales of sacks at | | |
| | Twine | 4 | | hanks at 70c | = | 3 |
| (IV) | Seed Dressing and Certification | | | | | |
| | Ryegrass | | | kg at | kg | |
| | Clover | | | kg at | kg | |
| (V) | Selling Expenses | | | | | |
| | Cartage: Crops | 400(29.47 tonnes) | Sacks/tonnes FOR | at \$0.32 per sack | = | 128 |
| | | | Sacks/tonne to store | at | | |
| | S. Seeds | | Sacks/boxes to store at | | | |
| | Wheat Levy | | ha at | | | 451 |
| (g) | Electricity: | Farm | | | | 250 |
| (h) | Feed: Hay baling | 1920 | | bales at \$0.20 | | 384 |
| | Twine | | | | | |
| | Carting | 1920 | | bales at \$0.13 | | 250 |
| | Hay Purchased | | | | | |
| | Other Stock feeds purchased | | | | | 100 |
| | Grazing | | ha/hd at | | | |

BUDGET WORKSHEETS (continued)

| | | | | | | | | | |
|-----|----------------------------------|----------------------------------|--------|-----------------|--|-------|--|--|------|
| (i) | Freight (Not Elsewhere Included) | | | | | | | | 100 |
| (j) | Fertiliser (ex works) | | | | | | | | |
| | 2.56 | tonnes Super at \$26.10/tonne | = | 93 | | | | | |
| | 32.5 | tonnes S. Super at \$28.85/tonne | = | 938 | | | | | 1031 |
| | | tonnes at tonne | = | | | | | | |
| | Freight | tonne | | kilometres at | | tonne | | | — |
| | Spreading 32.2 | tonne | 173 | Ha. at | | ha. | | | 254 |
| (k) | Lime | | | | | | | | |
| | 45.7 | tonnes at | \$9.20 | per ha. applied | | | | | 420 |

CROP

GRASS SEED

| | Area | Seed /ha | Total Seed | Price | Total Cost | Species | Area | Seed /ha. | Total Seed | Price | Total Cost |
|---------|------|----------|------------|-------|------------|--------------|------|-----------|------------|-------|------------|
| Lucerne | 10 | 11kg | 110kg | 3.00 | 330 | Tama | 8.1 | 33.6 | 272.2 | .31 | 84 |
| Barley | 8.1 | 140.2 | 1135.6 | .10 | 114 | Pasture — | | kg | | | |
| | | kg | kg | | | Ruanui | 1.6 | 22.4 | 35.8 | .45 | 16 |
| Turnips | 12.6 | 8g | 100g | 1.30 | 2 | | | kg | | | |
| | | | | | | Coxfoot | 1.6 | 2.2 | 3.5 | 1.65 | 6 |
| | | | | | | | | kg | | | |
| | | | | | | White Clover | 1.6 | 3.4 | 5.4 | 1.63 | 9 |
| | | | | | | | | kg | | | |
| | | | | | | Red Clover | 1.6 | 1.1 | 1.8 | 2.21 | 4 |
| | | | | | | | | kg | | | |
| | | | | | | Italian | 9.3 | 22.4 | 219.5 | .36 | 79 |

BUDGET WORKSHEETS (continued)

(m) Shearing Expenses

| | | | | |
|--------------|------|----------------------|-----------|--------|
| Shearing | 2000 | sheep at \$26.00 | per 100 = | 520 |
| | 450 | lambs at \$25.00 | per 100 = | 113 |
| Crutching | 2000 | sheep at \$10.00 | per 100 = | 200 |
| Shed hands | | Men | days at | hour = |
| Wool Packs | 62 | Packs at \$1.73 each | = | 107 |
| Wool Cartage | | Packs | miles at | = |
| Sundry | | | | |

940

(o) Water and Irrigation

| | | | | |
|---------------------------|--|--|--|-----|
| Irrigation charge | | | | |
| Stock Water Charge | | | | 150 |
| Pump Expenses (fuel only) | | | | |

2. Repairs and Maintenance

| | | | | |
|----------------------|-----|----------------------------|-----|-----|
| Dwellings | 100 | Fencing | 200 | |
| Other Buildings | 225 | Trees/Hedges | - | |
| Roads/Tracks (metal) | 50 | Water Supply | 20 | |
| Yards/Dip | 20 | Non motorized plant (1880) | 100 | 715 |

3. Vehicle Expenses

| | | | | |
|--------------------|-----|---------------------------------|-----|--|
| Tractor Repairs | | Car | | |
| 500 hours @ \$0.75 | 375 | Fuel & Oil 11,263 kilometres at | | |
| Header Repairs | | \$0.06 | 675 | |
| Baler Repairs | | Car Repairs | 300 | |
| Fuel - petrol | 750 | Truck | | |
| diesel | | Fuel & Oil - Kilometres at | | |
| oil | | Repairs | | |
| grease | | Registration fees | 50 | |

C/F

2150

BUDGET WORKSHEETS (continued)

4. Administrative Expenses

| | | | | | |
|------------------|-------|-------|----|--------------|------|
| Accountancy Fee | \$160 | | | | |
| General: Legal | \$ | Bank | \$ | Staty & Post | \$20 |
| Telephone Rental | \$ 80 | Tolls | \$ | Mail | \$ 2 |
| Advisory Fee; | \$200 | | | | |

462

5. Standing Charges

(a) Hire Purchase

(b) Insurances

| | | | | | | | |
|------------|---------|-----------|--------|------------------|----|------|--------|
| Buildings | \$9,360 | at 0.26% | 24 | Public Liability | \$ | at 6 | B/F 47 |
| Mot. Plant | \$1,600 | at 0.563% | 9 | Wool | \$ | at 2 | |
| Plant | \$1,800 | at 0.281% | 5 | Crop | \$ | at | |
| Emp. Liab | \$ 400) | | 9 | | | | |
| | 500) | 900 | | | | | |
| | | | C/F 47 | | | | |

55

(d) Rates

| | |
|--------------|----|
| County | \$ |
| Rabbit Board | \$ |
| Other | \$ |

300

(e) Interest, (S.A.C. Mortgage 25 year term)

| | | | | |
|----------|-----------|-------|---|-------|
| Mortgage | \$ 40,000 | at 7% | = | 2,402 |
| Bank O/D | \$ 4,000 | at 8% | = | 320 |
| Firm O/D | \$ | at % | = | |
| Other | \$ | at % | = | |

2722

(Annual S.A.C. payment \$3,432 of which the interest portion is \$2,402 and principal \$1,030)

BUDGET WORKSHEETS (Continued)

7. Stock Purchases

| | Class | No. | Type | From | Price | Cartage | Tot/Hd | Total | |
|-----|--------|-----|---------|------|---------|---------|--------|-------|------|
| (a) | Sheep | 6 | Rams | | \$50.00 | | | 300 | 300 |
| (b) | Cattle | 40 | Weaners | | \$35.00 | | | 1400 | 1400 |
| | | | | | | | | | 1700 |

8. Selling Charges

| | | | | | | | | | |
|-----|--|-------------------------------|---|--|--|--|--|-----|-----|
| (a) | Stock Commission | | | | | | | | |
| | | sales at | % | | | | | | |
| | Yarding | head at | | | | | | | |
| | Yarding | head at | | | | | | | |
| | Unloading | from Trucks at | | | | | | | |
| (b) | Wool Selling | | | | | | | | |
| | Commission | \$9365 at 2% | | | | | | 187 | |
| | Board Levy | \$9365 at 3% | | | | | | 281 | |
| | Reclassing | lbs at | | | | | | | |
| | Receiving etc. | 9858 kilos at 1.741c per kilo | | | | | | 172 | 640 |
| (c) | Commission on selling hay, produce or sundry | | | | | | | | |

9. Freight, Income items

Stock Cartage Outward

| No. | Class | To | Miles | at Rate/head | Total |
|-----|-------|----|-------|--------------|-------|
|-----|-------|----|-------|--------------|-------|

CASH FLOW CHART

| | Jul. | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apl. | May | June | Annual Totals |
|--|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Income | | | | | | | | | | | | | |
| Sheep Sales | | | | | | | 3626 | 2721 | 1814 | 907 | | | 9,068 |
| Cull Ewes | | | | | | | | | 1148 | | | | 1,148 |
| Beef Cattle Sales | | | | | 1520 | | | | | | | | 1,520 |
| Wool Sales, Crutchings | | 1220 | | | | | | | | | | | 1,220 |
| Main Shearing | | | | | | | | 7520 | | | | | 7,520 |
| Lambs Wool | | | | | | | | | 625 | | | | 625 |
| Crop Sales Barley | | | | | | | | | 2530 | | | | 2,530 |
| Other Income Rebates | | | | | | 50 | | | | | | | 50 |
| MONTHLY TOTAL INCOME | | 1220 | | | 1520 | 50 | 3626 | 10241 | 6117 | 907 | | | 23,681 |
| Expenditure | | | | | | | | | | | | | |
| Wages | | 300 | 300 | | | | | | | | | | 600 |
| Animal Health | 128 | 16 | | | | 105 | 220 | | | | | 18 | 487 |
| Cash Cropping | | | | | | | 63 | | 388 | | | | 451 |
| Electricity | 50 | | | 50 | | | 50 | | | 50 | | 50 | 250 |
| Feed | | | 100 | | | 634 | | | | | | | 734 |
| Freight | | | | | | | 50 | | 50 | | | | 100 |
| Fertilizer | | | 206 | | | | | 825 | | | | | 1,031 |
| Freight and Spreading | | | 100 | | | | | 154 | | | | | 254 |
| Lime | | | | 420 | | | | | | | | | 420 |
| Seeds | | | | 444 | | | | | 200 | | | | 644 |
| Shearing Expenses | 307 | | | | | 633 | | | | | | | 940 |
| Water Charges | | | | | | | | 150 | | | | | 150 |
| Repairs & Maintenance | 100 | 95 | 60 | | 30 | 60 | | | 100 | | 100 | 100 | 645 |
| Vehicle Expenses | 100 | 201 | 300 | 100 | 250 | 170 | 320 | 100 | 200 | 190 | 90 | 129 | 2,150 |
| Administration | 70 | | | 70 | 160 | 22 | 70 | | | 70 | | | 462 |
| Insurance | | | | | | | | 55 | | | | | 55 |
| Rates | | | | | | | | 300 | | | | | 300 |
| Interest | | | 760 | | | 600 | | | 760 | | | 602 | 2,722 |
| Stock Purchases: Sheep | | | | | | | | | | 1400 | | | 1,400 |
| Selling Charges | | | | | | | | 640 | | | | | 640 |
| TOTAL CASH FARM EXPENDITURE | 755 | 612 | 1826 | 1084 | 440 | 2224 | 773 | 2524 | 1698 | 1710 | 190 | 899 | 14,735 |
| Other Expenses | | | | | | | | | | | | | |
| Drawings | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 4,800 |
| Personal Insurance & Donts | | | 300 | | | | | | 300 | | | | 600 |
| Mortgage Principal Repayment | | | 257 | | | 258 | | | 257 | | | 258 | 1,030 |
| Non-farm Investment | | | | | | | | | | | | | - |
| Taxation | | | 4023 | | | | | | 12565 | | | | 16,588 |
| Monthly Total Expend. | 1155 | 1012 | 6806 | 1484 | 840 | 2882 | 1173 | 2924 | 15220 | 2110 | 590 | 1557 | 37,753 |
| Monthly Surplus(+)/Deficit (-) | -1155 | + 208 | -6806 | -1484 | + 680 | -2832 | +2453 | +7317 | -9103 | -1203 | - 590 | -1557 | |
| Cumulative Surplus(+)/Deficit (-) | | | | | | | | | | | | | |
| (Opening Balance \$+11,330) | +10175 | +10383 | +3577 | +2093 | +2773 | - 59 | +2394 | +9711 | + 608 | - 595 | -1185 | -2742 | -14,072 |

BUDGET ESTIMATES FOR OMEHEU DEMONSTRATION **FARM 1/6/74 to 31/5/75**

INCOME:

\$

| | | |
|----------------------------|-----|--------|
| Milkfat 29,000 kg @ \$1.32 | | 38,400 |
| Stock sales (ref notes) | | 3,740 |
| Rebates — RPD | 175 | |
| BOP Fertiliser | 120 | |
| Veterinary | 150 | |
| AffCo | 350 | |
| | | 795 |

\$42,935

EXPENDITURE:

\$

| | | |
|--|-------|--------|
| Wages | | 14,750 |
| Animal Health – Bloat | 300 | |
| Eczema | 200 | |
| Mastitis (control) | 120 | |
| Mastitis (prevention) | 440 | |
| Lice control | 20 | |
| Calves (worm drench) | 100 | |
| Vet Fees – cows | 200 | |
| Vet Fees – drugs | 295 | |
| | | 1,675 |
| Herd Testing – monthly | 545 | |
| A.B. | 620 | |
| Herd Identification (65 heifers @ 60c) | 40 | |
| Shed Expenses – general | 170 | |
| Detergents | 350 | |
| | | 1,725 |
| Electric Power (Dairy Shed) | | 500 |
| Feed (ref notes) Silage grass | 450 | |
| Silage maize | 300 | |
| Calves (meal) | 445 | |
| Calves (grazing) | 1,320 | |
| Heifers (grazing) | 2,255 | |
| Hay baling | 425 | |
| Hay cartage | 375 | |
| | | 5,570 |
| Fertiliser (ref notes) | | 2,070 |
| Nitrogen | | 1,050 |
| Seeds | | 1,020 |
| Contracting (ref notes) | | 820 |
| Weed and Pest Control – Ragwort | 25 | |
| New grass and Maize (Sutan) | 155 | |
| Army worm | 50 | |
| | | 230 |
| Water charges | | 75 |
| Repairs and Maintenance – | | |
| Milkers house | 150 | |
| Farm buildings – Cowshed | 150 | |
| Hayshed | 200 | |
| Implement Shed & office | 100 | |
| | 450 | |

| | | |
|--------------------------|-------|-----------------|
| | | \$ |
| Drainage | — | |
| Fencing | 650 | |
| Roads and Tracks | 120 | |
| Water Supply | 50 | |
| Plant and Machinery | 700 | |
| Tools | 75 | |
| Yards | 225 | |
| | | 2,420 |
| Vehicle Expenses — | | |
| Fuel and Oil | 250 | |
| Runabout | 300 | |
| Tractor — 434 | 120 | |
| Tractor — 454 | 200 | |
| Car Expenses | 60 | |
| | | 930 |
| Administration — | | |
| Telephone and Tolls | 250 | |
| Accountancy | 150 | |
| Farm Consultant | 600 | |
| Advertising | 50 | |
| Staff General | 120 | |
| Office equipment | 65 | |
| Travelling | 80 | |
| | | 1,315 |
| Standing Charges — | | |
| Insurance | 50 | |
| Rates | 475 | |
| Interest 1st Mortgage | 1,210 | |
| Interest 2nd Mortgage | 375 | |
| Interest Bank | — | |
| Land Rental | 350 | |
| House Rentals | 1,000 | |
| | | 3,460 |
| TOTAL EXPENDITURE | | \$37,600 |
| SURPLUS | | 5,335 |
| | | \$42,935 |

DISTRIBUTION OF SURPLUS

| | | |
|----------------------------|-------|---------|
| | | \$ |
| Capital Repayments | | 1,150 |
| Development | | |
| A.B. Facilities | 1,200 | |
| Effluent Disposal | 1,500 | |
| Backing gate modifications | 500 | |
| | | 3,200 |
| Taxation Estimate | | 1,350 |
| | | \$5,700 |
| Estimated Deficit | | \$ 365 |

NOTES FOR BUDGET:

| | |
|-----------------------------|-----------|
| Maximum cows to winter | 230 |
| Maximum cows to milk | 225 |
| Production per cow | 128 kg |
| Production per hectare (71) | 408 kg |
| Total estimated production | 29,000 kg |
| Payment estimated at 55c/lb | |

STOCK RECONCILIATION:

| | No. at 1.6.74 | Pur chases | Nat. Inc. | Sales | Deaths | No. at 31.5.75 |
|------------------|------------------|---------------|--------------|------------|----------|-------------------|
| Cows to calve | 165 | | | 42 | 3 | 185 |
| Heifers to calve | 65 | | | | | 45 |
| Yearling Heifers | 47 | | | 2 | | 55 |
| Heifer Calves | | | 108 | 53 | | |
| Bull Calves | | | 108 | 108 | | |
| Bulls | | 3 | | 3 | | |
| | <u>277</u> | <u>3</u> | <u>216</u> | <u>208</u> | <u>3</u> | <u>285</u> |
| | | 496 | | | 496 | |

STOCK SALES:

| | | |
|----------------------------------|-------|----------|
| 42 cull cows @ \$50 | 2,100 | |
| 2 Heifers @ \$45 | 90 | |
| 161 bobby calves @ \$10.00 | 1,610 | |
| 3 bulls @ \$100 | 300 | |
| | | \$ 4,100 |
| Less Purchases — 3 bulls @ \$120 | | 360 |
| | | \$ 3,740 |

EXPENDITURE NOTES:

| | | |
|--|-------|----------|
| Feed Costs | | \$ |
| Grass silage 20 ac @ \$12.50 | 250 | |
| Maize silage 8 ac @ \$36 | 300 | |
| Silage covers | 200 | |
| | | 750.00 |
| Calves — whole milk plus meal weaning at 10 weeks 115 lbs meal per calf. Cost of meal 7.0c/lb — Total Cost (6,225 lb @ 7c) | | 445.00 |
| Calf Grazing — G.M.S.L. Contract | | |
| Dec-May 24 weeks. Live weight gain = 200 lbs. Cost per calf @ 12c/lb = \$24.00 55 calves @ \$24.00 | | 1,320.00 |
| Heifer Grazing | | |
| Twelve months. Live weight gain 400 - 800 lbs = 400 lbs. Cost/ lb. live weight gain = 12c. Cost per heifer 400 x 12 = \$48 47 heifers @ \$48 | | 2,256.00 |
| Hay Baling | | |
| 2500 bales @ 17c | | 425 |
| Hay Cartage | | |
| 2500 bales @ 15c | | 375 |
| Fertilizer | | |
| Pasture Phosphate | | |
| Autumn 2 cwt 30% K 16.5 ton @ \$44.50 | 735 | |
| Spring 3 cwt 50% K 25 ton @ \$51.50 | 1,290 | |
| Nitrogen 10 tonne @ \$105 | 1,050 | |
| Spreading 41 ton @ \$5 | 205 | |
| Cartage 41 ton @ \$5 | 205 | |

Fertilizer cont'd

| | | |
|----------------------|-----------------|-------|
| Soil Testing | 40 | |
| Crop ½ ton @ \$50 | 25 | |
| | | 3,550 |
| Less cartage subsidy | 41 ton @ \$5 | 205 |
| | 30 ton @ \$7.50 | 225 |
| | | 430 |
| | | 3,120 |

Contracts

| | | | |
|----------------|-----------------------------|-----|-----|
| Ploughing | 8 acres @ \$8.50/ac (twice) | 135 | |
| Drilling | 8 acres @ \$3.25/ac (twice) | 50 | |
| Undersowing | 160 acres @ \$3.25/ac | 520 | |
| Hedges | | 70 | |
| Maize planting | 8 acres @ \$5.25/ac | 45 | |
| | | | 820 |

SECTION 1

REVENUE DATA

1. MEAT

(a) Sheep

Locally Consumed Lamb and Mutton

There is a considerable volume of sales from farm to wholesale meat buyers direct, but the main sales such as Addington and Burnside still set the market in the South Island. The weekly stock report is the best guide to the current situation.

Export Lamb and Mutton

Meat which is exported is graded by the New Zealand Meat Producers Board. The various grades are paid for by means of a meat schedule, details of which are set out on the following page

As regards lambs, ewes and wethers the payout is based on a separate assessment for meat and another for pelt and wool payment. These schedules are subject to alteration without notice. In the case of meat, prices may be altered to make allowance for any one or a combination of the following:—

1. Changes in meat prices due to supply and demand at Smithfield
2. Changes in price for by-products, and
3. Changes in killing charges.

If the meat and pelt schedule remains relatively stable throughout the season for lambs then, other things being equal there should be an increase in return per head due to the increased wool pull later in the season.

In Canterbury many freezing ewes are sold “on the hoof” in the owner’s yards.

Canterbury Frozen Meat Co. Ltd

In the current season, the CFM will market lambs on behalf of its farmer clients, through a series of 9 separate monthly pools.

The initial payment to the farmer would be about 90% of the estimated value of the skins.

A market realization payment would be made at the end of each pool marketing period. It will be the difference between the initial payment and the actual realization of the export meat.

PRESS REPORT – JANUARY 1974

The following table shows the average margin of the monthly lamb and ewe pools (for meat and skin) above or below schedule as indicated by a plus or minus sign before the figure, and where two figures are given the first shows the margin above or below the highest schedule paid by exporters and the second the comparison with the lowest schedule paid in the particular period:-

| 1971/72 | | | | 1972-73 | | | |
|----------|---|----------------|------|----------------|------|------------|-------|
| | | Lambs Ewes | | | | Lambs Ewes | |
| | | Cents per Head | | | | | |
| October | + | 34 | + 16 | October | + | 72 | — |
| November | - | 24 | + 6 | November | + | 45 | — |
| December | + | 5 | + 2 | December | + | 32 | — |
| January | + | 25 | + 6 | | + | 52 | |
| February | + | 66 | - 18 | January | + | 88 | + 178 |
| March | + | 150 | - 2 | | | | + 260 |
| April | + | 184 | + 19 | February | + | 72 | - 14 |
| May | + | 8 | + 38 | | + | 105 | + 132 |
| | + | 78 | | March | + | 62 | - 100 |
| June | + | 1 | + 50 | | + | 100 | - 23 |
| | + | 31 | | April | + | 52 | — |
| Final | | | | | + | 69 | N.A. |
| payment | + | 10.2 | | May | + | 79 | N.A. |
| | | | | | + | 89 | |
| | | | | June | N.A. | | N.A. |
| | | | | October - Dec. | + | 44 | — |
| | | | | | + | 74 | |

The company also ran beef pools last season and plans to run a further three this season.

The results for those conducted in the February-March and April-June periods last year are, with the margin above or below the highest and lowest schedules expressed in dollars per 100lb carcase weight:

| February-March | | |
|--------------------|---------|--------|
| | Highest | Lowest |
| Prime steer/heifer | + 0.13 | + 2.13 |
| Prime cow | + 2.01 | + 5.01 |
| Boner cow | + 3.07 | + 4.13 |
| Boner bull | + 2.81 | + 3.81 |
| April-June | | |
| Prime steer/heifer | - 2.14 | + 1.86 |
| Prime cow | - 0.99 | + 4.51 |
| Boner cow | - 0.22 | + 4.28 |
| Boner bull | - 0.99 | + 3.51 |

THE NEW ZEALAND REGRIGERATING CO. LTD.

Sheep & Lamb Schedule

SOUTH ISLAND – 1974/75

The following Export Schedule will operate as from Monday, 16th December, 1974.

Prices are quoted as delivered to nearest Port Works: Islington (or Belfast), Smithfield, Burnside, Ocean Beach, Picton, Nelson.

| MEAT ONLY | | | MEAT ONLY PER KG | | |
|----------------|-------------|-------------------|------------------|--------------|-------|
| LAMBS | Per kg | SHEEP | HOGGETS | WETHERS | EWES |
| Prime | | Prime | | | |
| D 8/12.5 kg | 39.0c | U/22 kg | 25.0c | 14.0c | 14.0c |
| 2 13/16 kg | 37.0c | 22.5/26 kg | 23.0c | 12.0c | 12.0c |
| 8 16.5/19 kg | 32.8c | 26.5/30 kg | | 10.0c | 10.0c |
| 4 19.5/25.5 kg | 29.4c | 30.5/36 kg | | 9.0c | 9.0c |
| F.A.Q. | | Seconds | | | |
| YL 8/12.5 kg | 39.0c | U/26 kg | 23.0c | 14.0c | 14.0c |
| YM 13/16 kg | 37.0c | | | | |
| YH16.5/25.5 kg | 29.0c | | | | |
| | | Canners | | | |
| | | All Weights | | 4.0c | 4.0c |
| OMEGA | | Overfats | | | |
| D 8/12.5 kg | 35.2c | All Weights | | 2.0c | 2.0c |
| 2 13/16 kg | 33.6c | | | | |
| ALPHA | | Processing No. 1 | | 3.0c | 3.0c |
| | | Processing No. 2 | | 2.0c | 2.0c |
| | 34.9c | UNEXPORTABLE | | 1.0c | 1.0c |
| EXPORT CUTTER | | | | | |
| No. 1 | | Overfat Lambs | | 25.0c per kg | |
| | | Unexportable Lamb | | 20.0c per kg | |
| | | Rams | | 3.0c per kg | |
| | U/12.5 kg | | | | |
| | 28.3c | | | | |
| No. 1 | | | | | |
| | O/13 kg | | | | |
| | 32.2c | | | | |
| No. 2 | | | | | |
| | All Weights | | | | |
| | 20.0c | | | | |

SKIN PAYMENTS (PELT & WOOL) PER HEAD

1 Kilo — 2.205 lbs *(Note: in later schedules)

| WOOL PULL | LAMBS | *SHORN LAMBS | SHEEP |
|------------------|------------------|-----------------|------------------|
| 0.20kg | 1.10kg 132c | 0.20kg 49c | 1.10kg 96c |
| 0.25 | 1.15 134c | 0.25 50c | 1.15 99c |
| 0.30 | 1.20 137c | 0.30 52c | 1.20 102c |
| 0.35 | 1.25 140c | 0.35 53c | 1.25 105c |
| 0.40 | 1.30 143c | 0.40 55c | 1.30 108c |
| 0.45 95c | 1.35 146c | 0.45 59c | 1.35 111c |
| 0.50 98c | 1.40 149c | 0.50 63c | 1.40 114c |
| 0.55 101c | 1.45 152c | 0.55 65c | 1.45 117c |
| 0.60 104c | 1.50 155c | 0.60 67c | 1.50 121c |
| 0.65 107c | 1.55 | 0.65 69c | 1.55 124c |
| 0.70 110c | 1.60 | 0.70 72c | 1.60 127c |
| 0.75 113c | 1.65 | 0.75 74c | 1.65 130c |
| 0.80 115c | 1.70 | 0.80 77c | 1.70 134c |
| 0.85 118c | 1.75 | 0.85 79c | 1.75 137c |
| 0.90 121c | 1.80 | 0.90 82c | 1.80 140c |
| 0.95 124c | 1.85 | 0.95 85c | 1.85 143c |
| 1.00 127c | 1.90 | 1.00 89c | 1.90 147c |
| 1.05 129c | 1.95 | 1.05 92c | 1.95 150c |
| | 2.00 | | 2.00 154c |

Seedy Wool and Seedy Pelts will be adjusted as follows:

| | |
|--------|------------------------|
| Light | 10c per head deduction |
| Medium | 20c per head deduction |
| Heavy | 25c per head deduction |

Deductions will also be made for black fibres of 10 cents per kilo.

Inferior and cotted full wools are subject to deductions and also Merino Pelt according to value.

The above schedule and skin payments are subject to alteration without notice.

The Hogget and Wether schedule is quoted for local trade only.

Press Report — October 1974 — SCHEDULE DOWN 41 per cent.

A prime 13.5 kilogram lamb (just under 30 lb) with 0.75 kilograms of wool is worth \$6.06 on the basis of the opening schedule issued in Christchurch yesterday by the New Zealand Refrigerating Company, Ltd.

This is \$4.89, or 44 to 45 per cent, lower than a year ago when the season opened with prices at record levels. The same lamb was then worth nearly \$11.

Though low — taking into account farmers' spiralling costs and the depreciation in the value of money — this price is still better than some pessimistic predictions about the sort of levels likely to be ruling at the season's opening.

But for a big increase of about \$1.50 per lamb in processing charges and freight costs since last season, the schedule would have been a reasonable one. But the effect of devaluation on exchange rates has to some extent offset these cost increases.

The New Zealand Refrigerating Company will start to kill lambs for export at its Islington works on Tuesday, but it is the only company in Canterbury which has announced its intention of starting killing next week.

A company spokesman said that while there was no real pressure to have lambs killed, clients of the company had asked that killing should start, and a part-chain would work next week.

The prices for lamb in the company's opening schedule are about 27c to 31c a kilogram lower than at the opening of the season a year ago, and represent a drop of from 41 to 48 per cent. The skin payments are also well down on a year ago. The skin of the lamb with 0.75 kilograms of wool is worth just half what it was a year ago. This has not been helped by a drop of \$4 a dozen in quotations for lamb pelts in the last four weeks, including a decline of \$2 in the last week.

The company spokesman said that the schedule was based on the latest projections received from London yesterday for lamb arriving in the United Kingdom before the end of the year, with known costs deducted.

Although lamb has been gradually improving in price in Britain since mid-August and a prime 13 to 16 kilogram lamb (29lb to 36lb) has gained the equivalent of about 10.2c a kilogram net c.i.f. over that period, or about \$1.37 a lamb, it is not expected that prices for early lambs reaching the market will change much from present levels.

Adjustment

Because the European Economic Community's external tariff on lamb entering Britain will rise again in the New Year, the company spokesman said that it was likely that prices to producers would have to be reduced from about the middle of next month — unless the market rose sufficiently to take care of the effect of this additional levy. Lambs bought after that would not reach Britain until after the levy came into force. On a prime 13 to 16 kilogram lamb the extra duty would amount to about 2.6c a kilogram or about 35c on a 13.5 kilogram lamb.

While the effect of devaluation on exchange rates has been to add about 94c to the price of the prime 13.5 kilogram lamb in New Zealand currency, this has only partly offset the increase in processing and freight costs since last season.

Compared with a year ago for the same type of lamb, these have risen about \$1.50, about half of that being attributable to higher freight costs to Britain, and half to higher killing and freezing charges and wool and pelt processing charges.

Opening Prices

The new prices, for lamb only, to operate in Canterbury and Marlborough from Monday are:

Prime — 8 to 12.5 kilograms, 40.8c per kilogram; 13 to 16kg, 39.2c; 16.5 to 19kg, 38.3c; 19.5 to 25.5kg, 34.8c.

Fair average quality — 8 to 12.5kg, 38.9c; 13 to 16kg, 37.5c; 16.5 to 25.5kg, 34.4c.

Omega — 8 to 12.5kg, 34.8c; 13 to 16kg, 33.2c.

Alpha — 31.5c.

Export Cutter — No. 1: Up to 12.5kg, 28.6c; over 13kg, 32.5c, No. 2: All weights, 19.3c.

Overfat — 26.5c.

Unexportable — 20c.

Skin payments range from 65c for a lamb with a wool-pull of 0.45 kilograms to 87c for a lamb with a wool-pull of one kilogram.

GUARANTEED PRICE SCHEME FOR EXPORT BEEF IN 1975-76.

A minimum guaranteed price scheme for export beef will be operated by the Meat Producers Board in the 1975-76 season. The prices decided on range from more than 30 percent to almost 50 percent, according to grade, above the current export beef schedule tables.

As a guide to producers as to the average range of values a guaranteed price scheme for export beef in the 1975-76 season would realise, the table below sets out the minimum returns producers can expect. The following calculations are based on the average carcase weights of cattle killed during the 1973-74 season up until the end of September this year:

| | Av. Wt. (kg) | Current schedule price (c/kg) | Guaranteed minimum price (c/kg) | Realisation per beast (\$) |
|---------------------|-----------------|-------------------------------------|---------------------------------------|----------------------------------|
| Chiller Steer | 264.5 | 39 | 55 | 145.50 |
| F.A.Q. Steer | 224.9 | 37 | 47 | 105.70 |
| Manufacturing steer | 184.0 | 26 | 40 | 73.60 |
| Manufacturing cow | 149.1 | 26 | 40 | 59.60 |
| Bull | 214.0 | 38 | 50 | 107.00 |

The following overall Export Schedule for cattle killed at our South Island Works will apply as from Monday, 16th December, 1974.

Prices are quoted as delivered nearest Port Works, Islington, Belfast Burnside, Ocean Beach, Picton or Nelson.

OX AND HEIFER BEEF

| | | OX | HEIFER |
|---------|--------------|----------------|----------------|
| | | Cents per Kilo | Cents per Kilo |
| Chiller | 1 U/220 kg | 26c | 24c |
| | 2 221/270 kg | 29c | 27c |
| | 3 271/340 kg | 32c | 30c |
| | 4 0/340 kg | 32c | 30c |
| G.A.Q. | 1 U/220 kg | 25c | 23c |
| | 2 221/270 kg | 28c | 26c |
| | 3 271/340 kg | 31c | 29c |
| | 4 0/340 kg | 31c | 29c |
| F.A.Q. | 1 U/220 kg | 24c | 22c |
| | 2 221/270 kg | 27c | 25c |
| | 3 271/340 kg | 30c | 28c |
| | 4 0/340 kg | 30c | 28c |

COW BEEF

| | | | |
|--|---------------------|------|----------------|
| G.A.Q. 1 | Grade 1 U/200 kg | 20c | Cents per Kilo |
| | O/200 kg | 25c | Cents per Kilo |
| G.A.Q. | U/140 kg | 12c | Cents per Kilo |
| | O/140 kg | 24c | Cents per Kilo |
| F.A.Q. | U/140 kg | 12c | Cents per Kilo |
| | O/140 kg | 20c | Cents per Kilo |
| Trimer Grade (Ox, Heifer & Cow) | | | |
| | Grade 1 All Weights | 13c* | Cents per Kilo |
| Manufacturing Grade (Ox, Heifer & Cow) | | | |
| | Grade 1 U/140 kg | 12c* | Cents per Kilo |
| | Grade 2 O/140 kg | 20c* | Cents per Kilo |

BULL BEEF

| | | | |
|---------------|--------------------|------|----------------|
| Manufacturing | | | |
| | Grade 1 U/180 kg | 20c* | Cents per Kilo |
| | Grade 2 181/260 kg | 29c* | Cents per Kilo |
| | Grade 3 O/260 kg | 37c* | Cents per Kilo |
| F.A.Q. | Grade 1 U/200 kg | 19c* | Cents per Kilo |
| | Grade 2 O/200 kg | 22c* | Cents per Kilo |

The above schedule of prices is subject to alteration without notice. This is based on the carcase with kidneys, kidney fat and channel fat removed. This schedule is based on Beef weight 'HOT' at scales.

THE N.Z. REFRIGERATING COMPANY LTD. CHRISTCHURCH

Purchases on Behalf of Kiwi Bacon Co. Ltd.
Christchurch

Killings At Islington Works

Operative from Monday, December 2nd, 1974.

PAYMENT ON HEAD—OFF FEET—OFF HOT WEIGHT

| Baconers | | Cents per kg |
|---|-------------------------|--------------|
| 41 — 44.5 kg | Prime | 96 |
| | Choice | 91 |
| | Standard | 85 |
| | Mutilated | 77 |
| 45 — 70 kg | Prime paid to 65 kg | 104 |
| | Choice paid to 65 kg | 99 |
| | Standard paid to 60 kg | 93 |
| | Mutilated paid to 60 kg | 85 |
| MANUFACTURING | All Weights | 33 |
| (Choppers & Boars and all pigs over 75 kg) | | |

Condemned Carcasses: NO VALUE

Condemned Heads & Parts: NO VALUE

All above prices delivered to Islington Works.

Subject to deduction of N.Z. Pig Council Levy: 50 cents per pig.

Porkers

As from Monday, 25th November, 1974 the schedule price for porkers will be as follows:

| | | | |
|----------|--------------|--------------|---------------------|
| Prime | 25 — 44.5 kg | 115c per kg. | delivered Islington |
| Choice | 25 — 44.5 kg | 115c per kg. | delivered Islington |
| Standard | 25 — 44.5 kg | 75c per kg. | delivered Islington |

All pigs will be paid out on 'Hot Weight'. A deduction of 10% on 'Hot Weight' will be made to allow for 'Head Off' and 'Trotters Off'. However, the schedule prices have been increased to compensate for this deduction.

2. WOOL

The following were the Average Gross Prices for the Christchurch sale of December 6th, 1974. These can be used in budget work, although reference should be made to up-to-date wool sales and market reports.

N.Z. Wool Marketing Corporation

The following table gives prices on a clean on the floor basis for a selected range of types, and using typical yields gives also the greasy prices.

| Type | Count | Price (c/kg) | Yield(%) | Price (c/kg) on Greasy Wgt |
|-------------|---------|-----------------|----------|-------------------------------|
| Merino | 60/64's | 244 | 60 | 146 |
| Fine ½ Bd | 58's | 190 | 65 | 124 |
| Medium ½ Bd | 56/58's | 180 | 66 | 119 |
| Strong ½ Bd | 54's | 162 | 69 | 112 |
| Fine X Bd | 50's | 139 | 73 | 101 |
| Medium X Bd | 46/50's | 143 | 75 | 107 |
| Strong X Bd | 44/46's | 144 | 75 | 108 |
| Course X Bd | 44/48's | 130 | 75 | 98 |

(Second Shear)

Note that these prices are applicable to clips of average quality in each of the count ranges. Where exceptionally good or poor wool is clipped an adjustment of 3 to 4 cents per kg could be made.

In following the wool sale reports from time to time in the press, the quotations for the Average grade of fleece wool in each count range should be noted particularly as this figure is an excellent guide to the overall average price per kg including oddments for the majority of clips.

3. DAIRY PRODUCE

(a) Cream to Butter Factories

The payout is based on the guaranteed price but actual payouts to suppliers will depend upon factory efficiency and transport costs of cream to factories. Advance payouts below the guaranteed price are made each month and the final payment is made in July of each year. There are three grades of cream: Finest, First and Second. The majority of the cream produced should grade Finest.

The Tai Tapu Dairy Factory for the 1974/75 season is paying the following advance payment:

| Cents per kg | | |
|--------------|------|---|
| Finest | 62.0 | Expected final payout will remain undetermined until the end of the season. |
| First | 60.0 | |
| Second | 55.0 | |

(b) Whole Milk to Butter, Casein and Milk Powder Factories.

In New Zealand this is the usual practice. The dairy company sends round tankers to collect all the milk from the farms daily. Advantages are:

- i. More efficient separation of the cream
- ii. Utilization of the Skim Milk to make Skim Milk Powder or Casein.
- iii. The farmer now has a choice of keeping pigs or not.

Payouts vary with the level of factory efficiency and transport costs but usually they are ahead of those factories which receive only cream. This return comes from the skim milk powder and casein.

(c) Whole Milk to Cheese Factories

Is paid for on a milkfat basis. The Dairy Board operates a pooling system with maximum and minimum prices, and differential prices for the various products. Actual payments will depend on the efficiency of factories and returns from the usage of by-products for the manufacture of such items as whey butter and milk sugar.

(d) CANTERBURY DAIRY FARMERS LTD — Prices - 1974/75.
(Cents per litre)

| Month | Full Price Paid For | Quota Milk | | | Surplus Milk | | |
|----------------|------------------------|------------|---------|---------|--------------|-------|-----------|
| | | Finest | First | Second | Finest | First | Second |
| September 1974 | 105% of quota | 12.4437 | 12.0767 | 10.2427 | 4.069 | 3.702 | 2.970 cpl |
| October 1974 | 105% of quota | 6.8227 | 6.4557 | 5.7237 | 4.069 | 3.702 | 2.970 |
| November 1974 | 105% of quota | 6.8227 | 6.4557 | 5.7237 | 4.069 | 3.702 | 2.970 |
| December 1974 | 105% of quota | 6.8227 | 6.4557 | 5.7237 | 4.069 | 3.702 | 2.970 |
| January 1975 | 105% of quota | 6.8227 | 6.4557 | 5.7237 | 4.069 | 3.702 | 2.970 |
| February 1975 | 120% of quota | 8.9375 | 8.5705 | 7.8385 | 4.069 | 3.702 | 2.970 |
| March 1975 | 120% of quota | 8.9375 | 8.5705 | 7.8385 | 4.069 | 3.702 | 2.970 |
| April 1975 | 125% of quota | 12.0767 | 11.7097 | 10.2427 | 4.069 | 3.702 | 2.970 |
| May 1975 | 125% of quota | 12.0767 | 11.7097 | 10.2427 | 4.069 | 3.702 | 2.970 |
| June 1975 | 130% of quota | 12.0767 | 11.7097 | 10.2427 | 4.069 | 3.702 | 2.970 |
| July 1975 | 130% of quota | 12.0767 | 11.7097 | 10.2427 | 4.069 | 3.702 | 2.970 |
| August 1975 | 120% of quota | 12.0767 | 11.7097 | 10.2427 | 4.069 | 3.702 | 2.970 |

NOTE:

- Finest grade is milk which passes a 5 hour reductase test and contains not less than 3.5% milkfat, and sediment test of 1 or 2, and freezing point 0.530 or more.
- First grade is milk which passes a 3 hour reductase test but fails to pass the 5 hour test and/or contains not less than 3.25% milkfat.
- Second grade is milk which fails to pass a 3 hour reductase test or contains less than 3.25% milkfat, or sediment test 3, or freezing point less than 0.530.
- A penalty of 0.183 cents per litre is applied to milk testing 8.35% S.N.F. and below, and 0.367 cents per litre to milk testing 8.20% S.N.F. and below. The penalty is applied on a monthly basis on the average of three solids-not-fat tests per month — one in each 10 day period.
- The national town milk price in 1974/75 is 8.9514 cents per litre for first grade milk. A premium of 0.367 cents per litre applies to finest grade milk and a penalty of 0.732 cents per litre to second grade milk. A special South Island allowance of 0.735 cents per litre applies to “full price” milk of finest and first grade in September 1974, and in April to August 1975. A Christchurch area allowance of 0.367 cents per litre applies in September 1974.

Throughout New Zealand about 96% of the milk supplied is graded Finest and less than 0.5% is graded second. Chilled milk premiums are:

.16c/litre (.7c per gallon) quota milk of chilled and held: or

.09c/litre (.4c per gallon) of chilled only.

(e) Bobby Calf Realizations

In Canterbury the majority of calves are of the Friesian breed. Prices paid by the Bobby Calf pools are based on a price per pound less cartage so that average local returns are above the national average, and above what we could expect if Jerseys were the predominant breed on a farm. Budget figures to be adopted are:

North Island

Friesian type calves \$12.00 per head

Jersey type calves \$ 9.00 per head

South Island

Friesian type calves \$10 – \$14 per head

Jersey type calves \$ 8 – \$10 per head

4. DAIRY CATTLE

The dairy cattle offered at Addington are not of very good quality by and large, except for some lines of yearling heifers so that the Addington market prices are not a good guide to dairy cattle values. In Canterbury with a distinct emphasis on town supply dairying there is a considerable premium paid for autumn calving cows and heifers over the prices paid for spring calving cows and heifers. Price ranges are difficult to pinpoint and the following can be considered a guide only.

| | |
|--|---------------|
| Good quality Friesian cows (autumn calvers) | \$200 – \$250 |
| Average quality Friesian cows (autumn calvers) | \$160 – \$200 |
| Good quality Friesian heifers (12–18 months old) | \$160 – \$200 |

Spring calving cows and heifers – \$20 – \$30 per head below the comparable autumn calving figure.

5. BREEDING & STORE STOCK

The main sales and ewe and ram fairs are the markets for breeding and store stock.

A chart has been drawn up for an analysis of prices paid for the main classes of stock. This should be filled in by watching for the appropriate sales, and used as a guide. If all sales reports are noted, any marked changes will be picked up as the year progresses. In some cases, a figure has already been entered, and these should be used as a guide only.

| (a) Sheep | | | Range |
|-----------------|--------------|---------|-------|
| 2T Ewes | Romney | Good | to |
| | | Average | to |
| | | Small | to |
| | Corriedale | Good | to |
| | | Average | to |
| | | Small | to |
| 4 year old ewes | Romney | Good | to |
| | | Average | to |
| | | Small | to |
| | Fine Wool | Good | to |
| | | Average | to |
| 5 year old ewes | Romney | Good | to |
| | | Average | to |
| | | Poor | to |
| | | Small | to |
| | Fine Wool | Good | to |
| | | Average | to |
| | | Poor | to |
| Works Ewes—Aged | Broken Mouth | | to |
| Ewe Hoggets | Romney | Good | to |
| | | Average | to |
| | Fine Wool | Good | to |
| | | Average | to |
| Store Lambs | Romney | Good | to |
| | | Average | to |
| | | Small | to |

| | |
|--------------------|----|
| Down Cross Average | to |
| Half Bred Wether | to |

Ram (Flock) Average Quality

| | Range |
|-------------------------------|-------------|
| Southdown | \$40 – \$60 |
| Dorset Down | \$40 – \$60 |
| South Dorset Down | \$40 – \$60 |
| Hampshire | \$60 – \$70 |
| South Suffolk | \$30 – \$50 |
| Suffolk | \$30 – \$50 |
| Romney | \$50 – \$70 |
| Corriedale | \$50 – \$80 |
| Border Leicester | \$60 – \$80 |
| Coopworth (sold with records) | \$50 – \$80 |

(b) Beef Cattle

For estimating beef cattle prices a comprehensive section is included in the Gross Margins section of the manual. Current schedule prices and local fat stock sale reports should also be consulted.

6. CROPS

- (a) (i) **Wheat** (South Island Prices for 1974/75 season F.O.R. at growers station.)

| | |
|--|---------------------------|
| Hilgendorf | \$101.05 per Tonne F.O.R. |
| Arawa | \$ 82.67 per Tonne F.O.R. |
| Kopara, Aotea and all other varieties | \$ 91.86 per Tonne F.O.R. |

Storage increments for wheat held on farms after harvest,

| | |
|---|--------------------------------|
| After April 30th, \$2.00/t | After May 31st, \$3.00/t |
| After June 30th, \$4.00/t | After July 31st, \$5.00/t |
| After August 31st, \$6.00/t | After September 31st, \$7.00/t |
| October onwards, \$8.00/t | |
| South of Waikouaiti increments are delayed one month. | |

- (ii) **Wheat Levy** **Cents/Tonne**

| | |
|--------------------------------|-----------------------|
| Wheatgrowers Compensation Fund | 15 |
| United Wheat Growers | 4 |
| Wheat Research Institute | 12 |
| Total Levy | 31 cents/Tonne |

- (b) **Barley (Price as delivered to nearest Malting Co. Store)**

| | |
|-----------------------------|---|
| Preferred Malting varieties | \$93.00 contract per tonne (\$2.11 per bus) |
| Feed Barleys | \$92.00 contract per tonne (\$2.08 per bus) |
| Seed Barleys | Certified Mother (from Pedigree) \$2.20 above malting |
| | Certified Commercial (from Mother) \$2.20 above malting |

- (c) **Oats (Prices for (40lb min. 18kg) milling or G.A.Q. quality F.O.R.)**

| | |
|--|--------------------------------|
| Gartons and other white coats (contract) | \$77.00 per Tonne (\$1.40/bus) |
| Algerians | \$80.00 per Tonne (1.45/bus) |

- (d) **Peas (field dressed prices)** **1974/75**

| | | |
|---------------------------|--------------|----------------|
| (i) Partridge (contract) | (\$3.10/bus) | \$114.00/Tonne |
| (free) | (\$2.25/bus) | \$ 83.00/Tonne |
| White Prolific (contract) | (\$3.55/bus) | \$130.00/Tonne |
| (free) | (\$2.75/bus) | \$101.00/Tonne |

| | | |
|------------------------|-----------------|----------------|
| Rondos (contract) | (\$3.55/bus) | \$130.00/Tonne |
| (free) | (\$3.50/bus) | \$128.00/Tonne |
| (ii) Garden (contract) | Greenfeast | \$133.00/Tonne |
| " | Onward | \$135.00/Tonne |
| " | Wm. Massey | \$150.00/Tonne |
| " | Victory Freezer | \$133.00/Tonne |

(iii) Green Peas for Freezing

Payout depends on stage of maturity at harvest as indicated by tendrometer reading.

Freezer Pea Payouts 1974/75

| Grade | Tendrometer Reading | \$ per Tonne Packed Weight |
|-------|---------------------|-------------------------------|
| 0 | 90 | \$140.00 |
| 1 | 91 – 95 | \$126.24 |
| 2 | 96 – 100 | \$110.91 |
| 3 | 101 – 105 | \$ 97.27 |
| 4 | 106 – 110 | \$ 85.32 |
| 5 | 111 – 115 | \$ 81.92 |
| 6 | 116 – 120 | \$ 73.27 |
| 7 | 121 + | \$ 65.16 |

(e) **Linseed**

Budget at \$187.00 per Tonne with bonuses for above average quality.

(f) **Lupins**

\$110.00 per Tonne (\$3.00/bus)

(g) **Ryecorn**

\$110.00 per Tonne to farmer (\$3.00/bus)

(h) **Main Crop Potatoes**

Prices of table potatoes vary considerably from year to year depending on the areas planted and yields obtained per acre. Prices have been stabilized to some extent by the introduction of a guaranteed payout scheme by the Potato Board for all surplus potatoes grown on contract to them.

Varieties

| | |
|---------------|----------------|
| All Varieties | \$45 per Tonne |
| North Island | \$50 per Tonne |

Seed potato prices vary from year to year with changes in supply and demand but usually range from \$100 - \$180 per tonne for higher Government grouping and \$80 - \$150 per tonne for lower Government grouping. Potato growing is a specialist occupation and considerable care is needed in attempting to budget forward because of the wide fluctuations in price from year to year.

Potato Board Levy: \$1.20 per Tonne

Growers of certified seed can have tubers inspected for quality by authorised inspectors of the Potato Board (Port Graders), and the issuing of certification tags by Government, requires a satisfactory inspector's report.

(i) A number of other specialist crops such as Brassicas for seed are sown in different areas for which price figures have not been obtained. Students will usually get the necessary information for budgeting when on a farm visit to these areas.

7. SMALL SEEDS

The grain and produce reports published at intervals in the "Press" give up to date prices and should be retained as additional information on this subject as the year proceeds. Prices to the farmer on a machine dressed basis vary with the purity and germination of the line of seed and the following can be considered to be a general guide only. They stand as at 1.1.74.

| (a) Grass Seeds (per Kilo) | | (b) Clover Seeds (per Kilo) | |
|----------------------------------|-------|---------------------------------------|-------|
| | \$/kg | | \$/kg |
| Manawa Ryegrass | | Huia Clover | |
| Certified 2nd generation | 0.20 | Certified 2nd generation + P.P. | 0.88 |
| Certified 1st generation | 0.22 | Certified 1st generation | 0.90 |
| Basic | 0.24 | Basic | 0.93 |
| Paroa Italian Ryegrass | | Turoa Montgomery Red Clover | |
| Certified 2nd generation | 0.20 | Uncertified | 1.30 |
| Certified 1st generation | 0.22 | Certified 2nd generation | 1.33 |
| Basic | 0.24 | Certified 1st generation | 1.35 |
| | | Basic | 1.37 |
| Ruanui Ryegrass | | Hamua Broad Red Clover | |
| Certified 2nd generation + P.P. | 0.23 | Uncertified | 0.85 |
| Certified 1st generation | 0.25 | Certified 2nd generation | 0.87 |
| Basic | 0.27 | Certified 1st generation | 0.90 |
| | | Basic | 0.93 |
| Ariki Ryegrass | | Subterranean Clover | |
| Certified 2nd generation | 0.18 | Uncertified | 1.12 |
| Mother 1st generation | 0.20 | | |
| Basic | 0.22 | Tall Fescue | 1.00 |
| Grasslands Apanui Coxfoot | | Prairie Grass | 0.66 |
| Certified 1st generation | 1.30 | Wairau Lucerne (Sth of Conway) | |
| Basic | 1.35 | 2nd generation | 1.40 |
| Tama Ryegrass | | 1st generation | 1.40 |
| 2nd generation | 0.16 | Basic | 1.45 |
| 1st generation | 0.18 | | |
| Basic | 0.20 | | |

| Kahu Timothy | \$/kg |
|---|--------------|
| Uncertified | 0.66 |
| Certified 2nd generation | 0.68 |
| Certified 1st generation | 0.70 |
| Basic | 0.70 |
| O.E.C.D. Seed Certification Grades | |

| | | |
|----------------------------|---|----------------|
| N.Z. Certified Govt. Stock | = | N.Z. |
| Pedigree | = | Basic |
| Mother | = | 1st Generation |
| Standard | = | 2nd Generation |

SECTION 2

FARM EXPENDITURE DATA

1. WAGES

- (a) Musterers, Packers and Drovers Award — refer Fed. Farmers Handbook
Shearers and Shed Hands Award — refer Fed. Farmers Handbook
Dairy Farm and Farm and Station — refer Fed. Farmers Handbook

Minimum Rates

| | |
|-------------------------|---------|
| Under 17 years | \$ 7.40 |
| Between 17 and 18 years | \$ 9.52 |
| Between 18 and 19 years | \$11.69 |
| Between 19 and 20 years | \$13.94 |
| Over 20 years | \$18.25 |

Where keep is provided by a farmer for all employees, such keep is valued at \$2.00 per week for taxation purposes thus wages are effectively increased by \$2.00 per week for basis of calculation of taxation, but then when the wages figure is paid to the farm employee such nett figure is correspondingly reduced by \$2.00

Employees over 20 years of age:

Minimum wage order as from 12th July 1974: :

| Males | Females | |
|---------|-----------|-------------|
| \$ 1.32 | \$ 1.12.5 | Hourly rate |
| \$10.56 | \$ 8.98 | Daily Rate |
| \$52.76 | \$44.85 | Weekly Rate |

Wages for Dairy Farm Workers

Minimum in North Island at moment \$60 rising to \$70 - \$80 for married men (gross).

Single men \$50 - \$60 per week gross.

Some Managers of large herds receive up to \$8,000 per annum.

All rates vary with individuals experience.

(b) Shearing Wages (February, 1975 Mid and North Canterbury)

(a) Machines

(1) Main Shearing of ewes and lambs

Range: \$24.50 to \$26.00 per 100 shorn

Majority: \$25.00 per 100 shorn, Canterbury

Snow-comb: + additional \$1.00 per 100 up to blade rates

(2) Lamb Shearing Only

Some gangs have different rates for ewes and lambs, lambs being \$1.00 per 100 below the ewe shearing rate.

(3) Contract Machines

Formula: $2 \times \text{shearing} + 10\% \text{ to } 15\%$ e.g. $(2 \times 25 + 8) = \$58$

(b) Blades

(1) Contract gangs

(i) Ranges from \$56.00 to \$64.00 per 100 depending on size of gang, whether a classer included or not, and whether all rations in or various items supplied by the farmers.

(ii) Formula, (all in) $(2 \times \text{shearing rate}) + 15\%$

(2) Shearers only

Range: \$30.00 to \$33.00 per 100

Crutching:

Full belly and eye clip \$11.00 per 100

½ belly, flank and eye clip \$10.00 per 100

Full crutch and eye clip \$ 9.00 per 100

Minimum ring crutch \$ 7.50 per 100

Full lamb crutch \$ 7.00 per 100

Woolshed Hands:

(1) Fleecies

\$2.00 per hour to \$2.50 per hour.

(2) Classers

“Ringer” rate or average daily rate per shearer e.g. At 200 sheep per day at \$25.00 per 100 Classer paid \$50.00 per day.

2. ANIMAL HEALTH

(a) Dog registration fees and Hydatid control fees \$5.60.

(b) Contract Sheep and Cattle Dipping (1974/75).

(i) Sheep Dipping

(a) Plunge: Total Cost, including materials:

| | | | | |
|------------|----|-------|----|-----------------|
| 1 | to | 500 | 12 | cents per sheep |
| 500 | to | 1,050 | 11 | cents per sheep |
| 1,050 | to | 2,050 | 10 | cents per sheep |
| 2,050 | to | 4,000 | 9½ | cents per sheep |
| Over 4,000 | | | 9 | cents per sheep |

(b) Mobile Shower:

(1) \$50 per 1,000 plus materials.

(2) 8c to 10c per sheep, including materials, depending on length of wool.

(ii) Cattle Dipping

Mobile Shower:

Using hoop in race. 1 application Dursban 45c per head.

(c)

SHEEP DIP GUIDE

Cost per 100 based on 2.25 l. of wash per head

| Parasite | Dip to Use | Active Ingredient | Method of Application | Dilution | Average cost per 100 sheep | Cost Per 4.5 l. (1 gal.) Concentration |
|--|-----------------------------|-------------------|-----------------------|-------------|----------------------------|--|
| Lice, Ked, Fly | Trigon D.F.F. | VC1-13 | Plunge | 1:2000 | \$3.10 | \$62.00 per 1 gal or 4.5 litre |
| | | | | 1:4000 | \$1.55 | |
| | | | Shower | 1:2000 | \$2.46 | |
| | | | | 1:4000 | \$1.23 | |
| | | | Shower (CR) | 1:1280 | \$2.36 | |
| Lice, Ked, Fly | Trigon | VC1-13 | | 1:2560 | \$1.18 | \$16.91 (4.5l.=1 gal. tin) |
| | | | Plunge | 1:5000 | \$3.36 | |
| | | | | 1:1000 | \$1.68 | |
| | | | Shower (CR) | 1:320 | \$1.24 | |
| | | | | 1:640 | \$2.48 | |
| Lice, Ked, Fly | Diaz-O-Spray | Diazinon | | 1:5000 | \$2.58 | \$21.50 per 4.5 litres |
| | | | | 1:1000 | \$1.29 | |
| | | | Plunge | 1:1000 | \$3.29 | |
| | | | | 1:2000 | \$1.95 | |
| | | | | | | |
| | | | Shower | 1:1000 | \$2.82 | |
| | | | | 1:2000 | \$1.41 | |
| | | | | | | |
| | | | Tip Spray | 1:200 | \$2.17 | |
| | | | | 1:100 | \$2.17 | |
| Lice, Ked, Ticks, Maggot Fly, Itchmite | Supreme | Supona | | 1:80 | \$2.17 | \$21.48 (4.5l.=1 gal.tin) |
| | | | Shower (CR) | 1:1000 | \$0.97 | |
| | | | | 1:500 | \$1.95 | |
| | | | Plunge | 1:500 | \$4.30 | |
| | | | | | | |
| | | | Shower | 1:500 | \$3.21 | |
| | | | Shower (CR) | 1:250 | \$3.98 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Lice, Ked | Numix | VC1-13 Powder | Plunge | 5Pkts 1000g | \$1.60 | \$23.14 per 5 kg |
| | | | Shower (CR) | 5Pkts 750g | \$1.20 | |
| | | | Shower | 5Pkts 1000g | \$1.80 | |
| | | | | | | |
| | | | | | | |
| Lice, Ked Itchmite | Q.A. Instant wetting Powder | Arsenic Sulphur | Plunge | 1:400 | \$3.00 | \$14.70 tin |
| | | | Shower (CR) | 1:400 | \$1.50 | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Maggot Fly, Lice & Ked | Surezon | Rotenone Surecide | Shower | 1:400 | \$2.40 | \$17.04 \$4.5l.=1 gal pack) |
| | | | Plunge | 1:400 | \$3.10 | |
| | | | | | | |
| | | | Shower | 1:400 | \$2.35 | |
| | | | Shower (CR) | 1:300 | \$2.02 | |

(c) Sheep Dip Guide continued

| Parasite | Dip to Use | Active Ingredient | Method of Application | Dilution | Average cost per 100 sheep | Cost Per Gal. Concentration |
|------------------------|---------------------|-------------------|---------------------------------------|----------|----------------------------|--|
| Lice, Ked, Diaz-O-Dust | | Diazinon | | | \$2.76 | \$17.97 25 kilos (56 lbs.) (650 sheep) |
| Fly Dust | Bacteriostat Powder | | 1 pack per 3500 for each days dipping | | | \$ 1.68 for 600 gm. |

| (d) Drench | Size of Pack | Cost | Dose Rate | Cost per Head |
|-------------------|--------------|--------|-----------|---------------|
| Selenium 5 mgm/ml | 500ml btl | \$1.05 | 1ml | .21 cents |
| Selenium 1 mgm/ml | 500ml btl | \$0.60 | 2ml | .26 cents |

ANTHELMINTIC COST COMPARISONS

| (a) Sheep | Size of Pack | Cost | No. of doses of 100lb sheep 45 kilo | Cost per Dose (cents) |
|-------------------|------------------|----------|--|-----------------------|
| Thibenzole Liquid | 2.3 litre ½ gal | \$ 11.42 | 151 | 7.6 |
| | 22.7 litre 5 gal | \$103.46 | 1515 | 6.8 |
| | 30 litre | \$129.52 | 2000 | 6.5 |
| Thibenzole Paste | 5 cartridge | \$ 26.50 | 375 | 7.1 |
| | 35 cartridge | \$177.85 | 2625 | 6.8 |
| Wormguard | 3 litre | \$ 20.70 | 300 | 6.9 |
| | 15 litre | \$ 93.08 | 1500 | 6.2 |
| | 22.5 litre | \$133.11 | 2250 | 5.9 |

| (b) Cattle | Size of Pack | Cost | No. of doses per 136 kilo (300lb) beast | Cost per Dose (cents) |
|---------------|-------------------|----------|---|-----------------------|
| Bovizole | 2.3 litre ½ gal | \$ 22.60 | 53 | 42.6 |
| | 4.5 litre 1 gal | \$ 42.46 | 106 | 40.1 |
| | 11.4 litre 2½ gal | \$103.43 | 266 | 38.9 |
| Noviben Paste | 5 cartridge | \$ 34.75 | 123 | 28.3 |
| | 10 cartridge | \$ 68.75 | 246 | 27.9 |
| Wormguard | 3 litre | \$ 20.70 | 66 | 31.3 |
| | 15 litre | \$ 93.08 | 333 | 27.9 |
| | 22.5 litre | \$133.11 | 500 | 26.6 |

New Formation Nilverm (Sheep and Cattle Drench) as at 18/12/74

| Type of Animal | Weight Range (Liveweight) | Pack Size | Dose Rate | No. of doses per pack | Price of pack \$ | Cost per dose (cents) |
|------------------------------------|---------------------------|-----------|---|-----------------------|------------------|-----------------------|
| Sheep 22.5 kilos (50 lbs.) | Up to | 45 litre) | 4ccs | 11,250 | 316.68 | 2.81 |
| | | 24 litre) | | 6,000 | 173.41 | 2.89 |
| | | 12 litre) | | 3,000 | 88.26 | 2.94 |
| | | 5 litre) | | 1,250 | 39.20 | 3.13 |
| | | 2 litre) | | 500 | 17.16 | 3.43 |
| | | 1 litre) | | 250 | 8.72 | 3.48 |
| Sheep 22.5 k-34 k(50-75lbs) | | 45 litre) | 6ccs | 7,500 | 316.68 | 4.22 |
| | | 24 litre) | | 4,000 | 173.41 | 4.33 |
| | | 12 litre) | | 2,000 | 88.26 | 4.41 |
| | | 5 litre) | | 833 | 39.20 | 4.70 |
| | | 2 litre) | | 333 | 19.16 | 5.15 |
| | | 1 litre) | | 166 | 8.72 | 5.25 |
| Sheep 34 k and over (75 lbs) | | 45 litre) | 8ccs | 5,625 | 316.68 | 5.62 |
| | | 24 litre) | | 3,000 | 173.41 | 5.78 |
| | | 12 litre) | | 1,500 | 8.26 | 5.88 |
| | | 5 litre) | | 625 | 39.20 | 6.27 |
| | | 2 litre) | | 250 | 17.16 | 6.86 |
| | | 1 litre) | | 125 | 8.72 | 6.97 |
| Young Cattle (400lb weaner) 200 kg | | 45 litre) | Dose rate based on 9cc per 45 kilos (100 lbs) | 1,250 | 316.68 | 25.3 |
| | | 24 litre) | | 666 | 173.41 | 26.0 |
| | | 12 litre) | | 333 | 88.26 | 26.5 |
| | | 5 litre) | | 138 | 39.20 | 28.4 |
| | | 2 litre) | | 55 | 17.16 | 31.2 |
| | | 1 litre) | | 27 | 8.72 | 32.3 |
| Adult Cattle over 272 kg (600 lbs) | | 45 litre) | 9cc/45 kilos | 833 | 316.68 | 38.0 |
| | | 24 litre) | | 444 | 173.41 | 39.0 |
| | | 12 litre) | | 222 | 88.26 | 39.8 |
| | | 5 litre) | | 92 | 39.20 | 42.6 |
| | | 2 litre) | | 37 | 17.16 | 46.4 |
| | | 1 litre) | | 18 | 8.72 | 48.4 |

(ii) Bloat Control

| No Bloat (Pasture Spray) | | N64 (Drench and Trough Treatment) | |
|--------------------------|---|-----------------------------------|---------|
| 231.(5 gal.) pack | — | 4.5 l. (1 gal.) | \$12.01 |
| | | 27 l. (6 gal.) | \$67.93 |
| Bloatenz No. 1 (Drench) | | \$12.30 per gal (4.5 litres) | |
| Bloatenz No. 2 (Trough) | | \$12.70 per gal. (4.5 litres) | |

(e) Vaccines

| Vaccine | Size of Pack | Cost | Dose Rate | | Cost per Head |
|-----------------|--------------|---------|---------------|-----|---------------|
| Black disease | 100 ml | \$ 1.39 | Sheep & lambs | 2cc | 2.78 cents |
| | | | Cattle | 5cc | 6.95 cents |
| Blackleg | 100 ml | \$ 1.94 | Sheep & Lambs | 2cc | 3.88 cents |
| Malignant Odema | 200 ml | \$ 3.86 | Cattle | 2cc | 3.86 cents |
| Covax 5 | 100 ml | \$ 3.86 | Sheep & lambs | 2cc | 7.72 cents |
| | 200 ml | \$ 7.52 | | | 7.52 cents |
| | 500 ml | \$17.82 | | | 7.10 cents |
| | 1000 ml | \$35.05 | | | 7.01 cents |
| Pulpy Kidney | 100 ml | \$ 1.33 | Sheep & lambs | 2cc | 2.66 cents |
| | 200 ml | \$ 2.48 | | | 2.48 cents |
| | 500 ml | \$ 5.64 | | | 2.26 cents |
| | 1000 ml | \$10.69 | | | 2.14 cents |
| Scabinvax | 125 dose | \$ 1.14 | Sheep & lambs | 2cc | 0.9 cents |
| Triple | 100 ml | \$ 3.07 | | | 6.14 cents |
| | 200 ml | \$ 6.14 | | | 6.14 cents |
| | 500 ml | \$14.85 | | | 5.94 cents |
| | 1000 ml | \$28.22 | | | 5.64 cents |
| PK/Blackleg | 200 ml | \$ 4.26 | Sheep & lambs | 2cc | 4.26 cents |
| | 500 ml | \$10.31 | | | 4.12 cents |
| PK/Tetanus | 100 ml | \$ 2.22 | Sheep & lambs | 2cc | 4.44 cents |
| | 200 ml | \$ 4.46 | | | 4.46 cents |
| | 500 ml | \$10.40 | | | 4.16 cents |

(f) Penicillin

| | | | |
|------|------|---------|---------|
| Hypo | 100 | 12 tube | \$ 1.18 |
| Hypo | 500 | 30 tube | \$ 6.32 |
| Hypo | 1500 | 10 tube | \$ 4.60 |
| Mast | 25 | 12 tube | \$ 0.84 |
| Mast | 50 | 12 tube | \$ 0.97 |
| Mast | 100 | 10 tube | \$ 1.44 |

Disinfectants

| | |
|-----------------------------|----------------------------------|
| Biozol | \$ 1.08 per litre |
| Detol | \$ 1.10 per litre |
| Formulin | \$ 7.07 per 22.7 litres (5 gal.) |
| Bluestone | \$44.00 per 50 kilos |
| Footrotting costs estimated | \$ 3.00 per 100 |
| Docking rings | \$ 4.20 per packet of 500 |

Veterinary Club Membership

Veterinary Club charges vary from club to club. A typical membership fee would be \$5.00.

Standard Fees — Visit and Examination:

| | |
|----------------------------|---------|
| Large animals | \$ 6.50 |
| Revisit | \$ 4.50 |
| Small animals (at surgery) | \$ 3.00 |
| Revisit | \$ 2.00 |

TB Testing

Spot testing — nil fee to farmer under normal circumstances.

Dairy Farm — total animal health expenses approximately:

| |
|--|
| \$ 4.00 — \$ 7.00 per cow (factory supply) |
| \$ 4.00 — \$ 8.00 per cow (town milk supply) |

3. BREEDING EXPENSES

(a) Artificial Breeding — Canterbury

Charge for First Service:

| | | | | | |
|---------|---|---------|---------|---|---------|
| 1st cow | — | \$ 7.50 | 4th cow | — | \$ 3.50 |
| 2nd cow | — | \$ 5.00 | 5th cow | — | \$ 2.75 |
| 3rd cow | — | \$ 4.00 | 6th cow | — | \$ 2.75 |

Frozen semen available all year round at \$1.75 plus 6.8 cents per kilo-Metre (11 cents per mile) per insemination. Nomination bull \$3.00 per insemination above basic fee or group service.

(b) Herd Testing (1974/75)

(S.I. Herd Improvement Assn.) Monthly testing, \$15.00 herd fee plus \$2.25 per cow. Minimum fee \$60.00 for 20 cows. Bi-monthly testing \$15.00 herd fee plus \$1.50 per cow. Minimum fee \$45.00 for 20 cows. For 2 tests per season (Nov./Jan.), herd fee is \$10 + \$1.00 per cow. Minimum fee is \$30 for 20 cows.

Auckland H.I.A.

| | | | | | |
|-------------------------|---|----------|---------|---|----------------|
| Monthly Test | — | Herd Fee | \$30.00 | + | \$2.32 per cow |
| Alternate Monthly Test | — | Herd Fee | \$17.00 | + | \$1.36 per cow |
| Production Ranking Test | — | Herd Fee | \$11.00 | + | \$0.71 per cow |

4. CASH CROPPING EXPENSES

(a) Contracting rates

(b) Contract Heading

Wheat: When the crop runs 2350 kilos/ha (35 bus/ac) or over 95.5c/100kg (26c/bus)

Barley: When the crop runs 1950 kilos/ha (35 bus/ac) or over \$1.15/100kg (26c/bus)

Oats: When the crop runs 1550 kilos/ha (35 bus/ac) or over \$1.43/100kg (26c/bus)

Peas & Lupins: When the crop runs 2000 kilos/ha (30 bus/ac) or over \$1.29/100kg (35c/bus)

In all cases where heading is carried out on hill country, the bushed rate shall be increased by 20%.

Linseed \$12.00 per acre or hourly rates according to size of header whichever is the greater.

| | |
|------------|--|
| Clover | \$32.00 per hectare (\$13 per acre) or hourly rates according to size of header, whichever is the greater. |
| Grass Seed | \$29.50 per hectare (\$12 per acre) or hourly rates according to size of header, whichever is the greater. |

Minimum charge in all cases where crop runs under the specified yield per acre must be not less than \$9.80 per metre front per hour (\$3.00 per foot front)

| | | |
|---------------------------|---|------------|
| i.e. 2.5 m (8 ft) header | — | \$24.50/hr |
| 3.0 m (10 ft) header | — | \$29.40/hr |
| 3.5 m (12 ft) header | — | \$34.30/hr |

Where a bag sewing machine and twine is supplied by a contractor, a charge of 3 cents per bag shall be made.

When threshing out of a stack, and the contractor is called upon to supply labour, then this shall be charged for at \$2.50 per man per hour for such extra men.

| | |
|---------------------|--|
| Up to 2.5 m headers | — 1 bag sewer supplied by the contractor |
| Over 2.5 m headers | — 2 bag sewers supplied by the contractor |
| Bulk heading | — same rates as ordinary heading |
| Auger hire | — 30 cents per tonne each time auger is used |

In case of emergency, when work has to be done on Sunday, the extra wages paid to the men shall be charged in addition to the normal rates.

2½% discount for payment within 30 days of the work's being done.

Cartage from header to silo, at appropriate schedule rates.

Chaff Cutting: (Prices include machine and 3 men)

| | |
|-------------|------------------|
| Oatsheaf | 35 cents per bag |
| Straw Chaff | 60 cents per bag |
| Oaten Hay | 55 cents per bag |
| Lucerne | 80 cents per bag |

These prices apply within a radius of 16 kilometres from the contractors headquarters. Any work done beyond this distance will be charged at \$0.28 per km (\$0.45 per mile), one way.

(ii) Contract Mowing

Peas — \$10.00 per hour

Grass — \$9.00 per hour

(iii) Contract Windrowing

Per Hectare — \$16.00 per hour, special crops by arrangement.

Windrowing \$9.90 per ha (\$4.00 per ac), 4 inches and above

Windrowing \$11.10 per ha (\$4.50 per ac), under 4 inches. Under 4 ha, (10 ac) 87 cents per ha extra (35 cents per ac).

Windrowing and Conditioning \$12.35 per hectare.

Note: The prices listed here, are minimum prices based on average conditions, and may be increased, according to conditions.

(iv) Potatoes

Digging \$0.35 per bag plus labour

Planting \$5.00 per hour, two men two rows: average rate
0.2 to 0.4 ha per hour

Bulk Harvesting \$9.00 per tonne plus labour

Grading \$0.30 per bag

Roguing \$15.00 per hectare

(b) Sacks (ex store) 1974 Prices

| | 46" x 23" (1170 x 585mm) | 48" x 26" (1220 x 670mm) |
|-----------------------------------|-----------------------------|-----------------------------|
| New Sacks | 52.5 cents | 62.6 cents |
| Rebate | 36 cents | 43 cents |
| Once Shot Sack | 49 cents | 56 cents |
| Rebate | 31 cents | 35 cents |
| Second Hand Sacks | 44 cents | 51 cents |
| Rebate | Open | Open |
| New Sacks Containing M.D. Seed | 52.5 cents | 62.6 cents |
| Sacks Containing M.D. Grain | 49 cents | — |
| Farmer's Dressed Grain | 36 cents | — |
| Chaff Sacks | — | 51 cents |

Metrication (Grain and Small Seeds)

Metric units for trade to be used as follows:

- | | |
|---|----------|
| (a) Small Seeds | Kilogram |
| (b) Grain, peas, potatoes, onions and stock foods | Tonne |

Sowing Rates and Crop Yields

Sowing rates will be expressed in kilograms per hectare.

Crop yields will be expressed in tonnes per hectare.

Metric Pack Weights and Sizes

Metric packs for machine dressed grain and seeds will be as follows:

| Pack Weights | Gross Weight |
|---|--------------|
| Clovers, Ryegrasses, Browntop, Dogstail, Timothy, Fescue, Brassicas and Lucerne | 50 kg |
| Cocksfoot and Prairie Grass | 35 kg |
| Field Peas | 75 kg |
| Garden Peas | 50 kg |
| M/D Seed Wheat, M/D Seed Lupins, Tares and Ryecorn | 75 kg |
| M/D Seed Barley | 70 kg |
| M/D Seed Beans — Small seed | 50 kg |
| — Large seed (e.g. Scarlet, Broad) | 40 kg |

Sack Sizes

The following sack sizes will be adopted for metric packings, viz:

| | |
|----------------|--------------|
| 1220mm x 670mm | (48" x 26½") |
| 1170mm x 585mm | (46" x 23") |
| 940mm x 585mm | (37" x 23") |

and the packings will be:

| | Sack Sizes |
|--|--------------------------------|
| Ruanui Ryegrass, Ariki Ryegrass, Browntop, Timothy, Dogstail, Field Peas, Seed Wheat, Seed Barley, Seed Oats, Seed Lupins, Seed Tares, Seed Ryecorn. | 1170mm x 585mm (46" x 23") |
| Manawa Ryegrass, Tama Ryegrass, Italian Ryegrass, Cocksfoot, Prairie Grass, Fescue. | 1220mm x 670mm (48" x 26½") |
| Garden Peas, Clovers, Lucerne, Beans, and all Brassicas | 940mm x 585mm (37" x 23") |

Field Peas, M/D Seed, Wheat and M/D Seed Lupins may be packed in 1040mm x 585mm (41" x 23") sacks.

Potato sacks — no rebate is paid. Usually second hand sacks are bought for 40 cents each.

The sacks containing the seeds bought in, would be kept for the seconds off the header and the seed held onto by the farmer for future sowings, so discount them in working out a budget.

A bale holds 250 x 0.58m sacks.

Capacities:

| | | |
|------------------------------|----------------------|--|
| Ryegrass Perennial | 63.5 kilos (7 bu.) | M.D. in 1.2m sacks, 45 kilos (5 bu.) F.D. |
| H1 Italian | 54.5 kilos (6 bu.) | M.D. in 1.2m sacks, 36 kilos (4 bu.) F.D. |
| Cocksfoot | 45 kilos (100 lb.) | M.D. in 1.2m sacks, 27 kilos (60 lb.) F.D. |
| Phalaris | 63.5 kilos (140 lb.) | in double 0.58m sacks, M.D. 54.5 (120 lb.) in single sacks F.D. |
| Timothy | 63.5 kilos (140 lb.) | in double 0.58m sacks M.D., 45 kilos (100 lb.) in single sacks F.D. |
| Clovers & Lucerne | 72.5 kilos (160 lb.) | in double 0.58m sacks M.D., 54.5 kilos (120 lb.) in single sacks F.D. |
| Wheat | 81.5 kilos (3 bu.) | F.D. in 0.58m sacks |
| Barley | 79 kilos (3½bu.) | F.D. in 0.58m sacks |
| Oats | 63.5 kilos (3½bu.) | F.D. in 0.58m sacks |
| Field Peas | 81.5 kilos (3 bu.) | F.D. in 0.58m sacks |
| Garden Peas | 68 kilos (2½bu.) | F.D. in 0.58m sacks |
| Lupins | 81.5 kilos (3 bu.) | F.D. in 0.58m sacks |
| Linseed | 76 kilos (1½cwt.) | |
| Potatoes | 72.5 kilos (160 lb.) | sack, 14 sacks per tonne, 1.2m sack. |

Quantities of sacks required by farmer

The farmer requires sacks to transport his F.D. product to the store and having been Machine Dressed there, a heavier weight can be put into the bag. As indicated above, clovers, phalaris and timothy are delivered in single sacks but when Machine Dressed are put into double sacks.

Working on a M.D. basis the approximate number of sacks required by a farmer are as follows:

| | |
|----------|-----------------------------------|
| Ryegrass | 1 sack per 34 kilos M.D. (3¾ bu.) |
| Clovers | 1 sack per 36 kilos (80 lb.) M.D. |

Twine

Seaming — 1 hank (½ lb) 1.1 kg costs 80 cents

(c) Seed Certification Fees (as from 1/9/73) still current

(i) For Seed Certified on Field Inspection Charge in:

Cents/100 kg

| | |
|---------------------------------------|------|
| Ryegrass, all varieties | 55c |
| Clovers, Lucerne, Browntop, Cocksfoot | |
| Timothy, Dogstail | 110c |
| All cereals | 5c |
| Brassicas except swedes & turnips | 39c |
| Linen Flax | 17c |
| Onion | 550c |

(ii) For Seed Certified on Lab. Test Alone

| | |
|-------------------------|-----|
| Ryegrass (N.Z.P.P.) | 39c |
| White Clover (N.Z.P.P.) | 91c |

(iii) Seed Potatoes

Fees are payable before field inspection is undertaken.
All varieties: \$2.50 per ac or part (\$6.18 per hectare).

(d) Seed Testing Fees (as from 1/1/74)

| Type of Certificate | Charge per Line of Seed |
|-------------------------------|-------------------------|
| Purity only | \$2.56 |
| Germination only | \$2.56 |
| Purity & Germination combined | \$5.12 |
| Linseed valuation | \$2.56 |
| Blind Seed Test | \$5.12 |
| Moisture Tests | \$2.56 |

(e) Consolidated Dressing and Store Handling Charges (15/1/75)

(Receiving and delivering, sampling, weighing, dressing, brushing of sacks and disposal of offal).

| | Rates per 100 kg |
|--|---------------------|
| Ryegrass — Perennial, Italian, Tama, Short Rotation and Ariki | \$ 3.25 |
| — each additional time through | \$ 1.65 |
| Cocksfoot | \$ 9.00 |
| Clovers — White, red, lucerne, Alsike, etc. | \$ 9.00 |
| Wheat and Ryecorn | \$ 1.26 |
| Barley | \$ 1.53 |
| Field Peas and Lupins | \$ 1.53 |
| Garden Peas and Beans | \$ 2.02 |
| Oats — Dressing and Clipping | \$ 1.80 |
| Linseed | \$ 2.67 |
| Grass seed — (Fine) — Browntop, Fescue, Dogstail and Timothy | \$ 9.00 |
| Turnips, Chou Moellier, Kale and Mustard | \$ 9.00 |
| Rape | \$ 6.60 |
| Prairie Grass | \$13.30 |
| Yarrow | \$17.45 |

| | | |
|--|---------------|------|
| Separating White Clover and Ryegrass | per sack | 0.50 |
| Separating Mixed Oats and Ryegrass | per sack | 0.50 |
| Ceresan or Agrosan Dusting | per 100 kilos | 0.93 |
| Orthocide or Spergon Treating | per 100 kilos | 1.25 |
| Blending Clovers and Blending Grass Seeds | per sack | 0.90 |

Box Hire — \$2.50

A box is deemed to hold 13 sacks of grasses. (roughly 530 kilos F.D.)

A box is deemed to hold 18 sacks of grain. (roughly 1225 kilos)

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

Field dressed ryegrass dress out approx. 25% offal leaving
75% M.D.

Field dressed clovers dress out approx. 25% offal leaving
75% M.D.

| | |
|---|-------------------------------------|
| Field dressed Timothy dressed out approx. | 25% offal leaving 75% M.D. |
| Field dressed cocksfoot dress out approx. | 25–33% offal leaving 75–67% M.D. |

In budgeting it is usual to discuss M.D. yields, thus for ease of working, the following examples have been calculated to show the relationship between actual costs incurred in dressing and what the cost is per M.D. product.

(a) Ryegrass

| | |
|---|-------------------|
| 10 ha yielding 600 kilos/ha M.D. | = 6000 kilos M.D. |
| Actual quantity sent in for dressing was 8000 kilos | |
| Dressing charge – 8000 kilos @ \$2.98/100 kg | = \$238.40 |
| | = 4c/kg M.D. |
| Certification charges - 55c/100 kg on 6000 kilos | = \$ 33.00 |
| | = .6c/kg M.D. |
| ∴ Total charges – 4.6c per kg M.D. | |

(b) White Clover

| | |
|--|-------------------|
| 10 ha yielding 200 kilos per ha M.D. | = 2000 kilos M.D. |
| Actual quantity sent in for dressing was 2700 kilos F.D. | |
| Dressing charge – 2700 kilos @ \$8.27 per 100 kg | = \$223.29 |
| Certification charge—2000 kilos @ 110c/100 kg | = \$ 22.00 |
| | = \$245.29 |
| Total dressing and certification | = 12.3c/kg M.D. |

Grain and Seed Drying Charges:

| | Moisture Content | Drying Charge |
|------------------------|-------------------------|----------------------|
| Peas | Up to 17% | \$ 8 per tonne |
| | Between 17% and 18% | \$10 per tonne |
| | Over 18% | \$12 per tonne |
| Wheat, Oats and Barley | Up to 17% | \$ 7 per tonne |
| | Between 17% and 18% | \$ 8 per tonne |
| | Over 18% | \$10 per tonne |
| Small Seeds | Up to 17% | 4.0c per kg |
| | Between 17% and 18% | 5.0c per kg |
| | Over 18% | 6.0c per kg |

For second run over dryer, charge is half above rates.

5. CULTIVATION CONTRACTS

(a) Crawler Tractors

These rates include one basic implement and driver and are recommended minimum rates.

Engine H.P.

| | | |
|-------------|------------------|---|
| 35-50 hp | \$11.00 per hour | Note: Metric horsepower = 0.9865 British Horsepower |
| 51-64 hp | \$11.50 per hour | |
| 65-90 hp | \$15.50 per hour | |
| 91-115 hp | \$21.00 per hour | |
| over 115 hp | \$27.50 per hour | |

(b) Wheeled Tractors

Engine H.P.

| | | |
|----------|----|------------------|
| 30-40 | hp | \$ 8.00 per hour |
| 41-50 | hp | \$ 9.00 per hour |
| 51-60 | hp | \$10.00 per hour |
| 61-70 | hp | \$11.00 per hour |
| 71-80 | hp | \$12.00 per hour |
| 81-90 | hp | \$13.50 per hour |
| 91-100 | hp | \$14.00 per hour |
| 101-110 | hp | \$15.00 per hour |
| 111-120 | hp | \$16.00 per hour |
| over 120 | hp | \$18.00 per hour |

(c) Four Wheeled Drive Tractors

| | |
|-------------|------------------|
| Under 80 hp | \$12.00 per hour |
| 81-100 hp | \$14.00 per hour |
| Over 101 hp | \$16.00 per hour |

Rotary hoeing — \$3.00 per hour additional to the appropriate wheeled tractor rate.

6. DAIRY SHED EXPENSES

| | |
|--------------------------|---|
| Cow Covers | Lined: Brown Jute — \$13.15, Green Jute \$14.90 Flax — \$21.30 Unlined: Brown Jute — \$8.20, Green Jute — \$10.00 |
| Inflations | 1 set moulded cost \$5.10 per doz. |
| Milk Rubbers | \$1.17 per metre changed 1 set year |
| Air Rubbers | \$0.87 per metre changed ½ set year |
| Claw Rubbers | \$1.74 doz. changed 2 sets year |
| Cup Rings | \$1.44 doz. changed 1/3 set year |
| Galvanised Buckets | \$4.17 (13.64 litres or 3 gals) |
| Milk Buckets(S.S.) | \$7.65 (141.) Calf bucket \$3.50 |
| Polythene buckets | \$4.20 (13.64 litres or 3 gals.) |
| Oil — Pump | \$0.56 per litre. Teat salve \$4.64 per 4 kilo tin |
| Detergents) Alkali | \$5.78 per 4.5 kilo tin |
| Iodophor Sanitizers | \$5.85 per 4.5 l. (1 gal.) \$27.20 per 23 l. (5 gal.) |
| Iodophor Vat Cleaners | \$6.10 per 4.5 l (1 gal.) \$27.10 per 23 l. (5 gal.) |
| Non Ionic Wetting Agents | \$10.10 per 23 l. (5 gal.) |
| Brooms (36 cm) | \$3.03 |
| Costs per cow milked | — factory supply \$2.00 to \$3.00 — town milk supply \$3.00 to \$3.50 |

7. ELECTRICITY

| | | |
|----------------------|---|--|
| Costs per cow milked | — | Factory supply shed (milking, water heater, water pump, waste disposal) |
| | | \$2.50 per cow, to \$4.00 per cow. |
| | — | Town milk supply shed (milking and water heater), water pump, waste disposal |
| | | \$3.50 — \$4.50 per cow. |
| | — | Owners household is excluded. |
| | — | Power to outbuildings, whares, motors, would total \$40 — \$60 per year. |

8.

(a) Haybaling

(i) Contract Rates:

- Windrowing and conditioning – \$12.35 per ha (\$5. per ac)
- Raking hay – once over, \$9.00 per hour
- Mowing hay – \$9.00 per hour
- Conditioning hay – \$9.00 per hour
- Mowing and conditioning -- \$11.00 per hour
- Baling – Hay or straw \$0.20 per large bale
 \$0.19 per small bale
- Sledging by Contractor \$0.04 per bale

For any quantity less than 200 bales, price may be by arrangement.

20% surcharge on hill country

- | | | | |
|---|---------------------|--------|----------|
| — | Collecting (jumble) | \$0.01 | per bale |
|---|---------------------|--------|----------|

(ii) Twine:

Baling Twine \$42.48 per bale (36 kilo or 80 lb. bales)
 1 ball weighs 9 kilos (20 lbs) ∴ 4 balls per bale
 200 bales (hay) per ball of twine
 ∴ 5.31 cents per bale

Binder Twine 2.5 kilo ball (5.5 lb), \$4.10
= 3.24 cents per bale

(b) Forage Harvesting (Silage)

1 forage harvester, 1 tractor and 1 man only \$12.00 per hour

Farmer to supply all other men and gear required

Vacuum Pumps – \$4.00 per hour (Tractor supplied by farmer)

Note — these are all recommended minimum rates

(c) Stock Foods

Calf Rearing Costs:

| | |
|--|------------------------------|
| Denkavit — \$15.86 for 25 kilos | 30c/calf/day 4.5 l. per day) |
| Skim milk (4.5 l./day) — \$12.00 per 20 kilos | 30c/calf/day |
| Whole Milk — 3.4 l.(0.75 gal.) 4.5 test @ \$0.30 | 22c/calf/day |
| Meal (Weanamon) — \$0.16 per kilo, 0.7 kilos per day | 12c/calf/day |

Sheep Supplements

Moose Nuts

| | | |
|------|--|-----------------------------------|
| (i) | Pure Linseed nut \$189.72 per tonne | Freight paid |
| (ii) | Linseed Balanced nut \$142.44 per tonne | Freight extra |
| | Peerless sheep nuts (Linseed based) \$137.00 per tonne | |
| | Molactrate block | \$ 3.50 per 23 kilo (50 lb) block |
| | Denkavit | \$ 15.86 per 25 kilo bag |
| | Molasses | \$ 7.50 per 23 litres (5 gal.) |
| | Agricultural salt | \$ 3.35 per 50 kilos |
| | Rock Salt | \$ 4.75 per 50 kilos |
| | Bran | \$ 3.97 per 50 kilos |

(d) Grazing Fees (agistment)

Payment for grazing varies according to the class of livestock the time of the year, seasonal conditions and the district. The following figures are quoted as rough guides only.

| | |
|---------------------|--------------------------------|
| Hoggets | 10c per head per week |
| Ewes | 10c — 12c per head per week |
| Dairy cattle | \$1.00 per head per week |
| Weaner beef animals | 50c — \$1.00 per head per week |

9. FREIGHT AND CARTAGE

Railway charges, obtainable out of Railways Department Tariff book and classification book.

Stock Capacities of Railway Wagons

Type of Wagon

Cattle

| | | |
|---------|-------------------|-------|
| H Wagon | | 8 |
| H C | 1/3 bigger than H | 11-12 |
| T W | 2 x H | 17 |

Sheep

| | | |
|---------|-------------------|-------|
| J Wagon | | 60 |
| J C | 1/3 bigger than J | 80-90 |
| S | 2 x J | 126 |

J, JC and S Wagons are two-deck.

Classified Rates are

| | |
|----------------|---------------|
| H and J wagons | Class M |
| HC + JC wagons | M + 1/3 |
| S + J wagons | M double rate |

Classification of Goods Carried

| | |
|------------------|---|
| Class D | Clover and Fencing Material (not including wooden posts, stays and strainers which are Class Q) |
| Class E | Fertilizer and Potatoes |
| Class E plus 50% | Ryegrass |
| Class F | Lime and Firewood |
| Class H | Wool |
| Class K | Timber |
| Class M | Stock |
| Class P | Grain |
| Class Q | Concrete Products |
| Class C plus 20% | Agricultural Machinery Assembled (subject to minimum per machine) |

Freight and Cartage

Goods Classification

| Distance | | D | E | E + 50% | F | H | K | M | P | Q |
|--------------------|-------|-----------------|-----------------|-----------------|-----------------|----------------------------|--------------------------|--------------------|-----------------|-----------------|
| Kilometres (miles) | | Per tonne \$ | Per tonne \$ | Per tonne \$ | Per tonne \$ | Undumped per bale \$ | per m ³ \$ | Per Wagon \$ | Per tonne \$ | Per tonne \$ |
| 19 | (12) | 3.54 | 2.34 | 3.10 | 1.80 | 0.60 | 2.42 | 11.80 | 2.34 | 1.97 |
| 32 | (20) | 4.09 | 2.34 | 3.58 | 1.84 | 0.69 | 2.80 | 11.80 | 2.34 | 1.97 |
| 48 | (30) | 5.24 | 2.95 | 4.38 | 2.05 | 0.89 | 3.28 | 11.80 | 2.95 | 2.28 |
| 64 | (40) | 6.04 | 3.36 | 5.04 | 2.25 | 1.02 | 3.90 | 12.47 | 3.36 | 2.90 |
| 80 | (50) | 6.85 | 3.76 | 5.64 | 2.46 | 1.16 | 4.32 | 14.11 | 3.76 | 3.34 |
| 96 | (60) | 7.66 | 4.16 | 6.25 | 2.66 | 1.30 | 4.80 | 15.82 | 4.16 | 3.76 |
| 112 | (70) | 8.46 | 4.56 | 6.85 | 2.87 | 1.43 | 5.42 | 17.50 | 5.03 | 4.18 |
| 129 | (80) | 9.15 | 4.86 | 7.25 | 3.13 | 1.55 | 5.93 | 19.00 | 5.46 | 4.53 |
| 145 | (90) | 9.77 | 5.10 | 7.65 | 3.41 | 1.66 | 6.27 | 22.22 | 5.90 | 4.79 |
| 161 | (100) | 10.39 | 5.35 | 8.03 | 3.69 | 1.76 | 6.51 | 25.45 | 6.13 | 5.07 |
| 177 | (110) | 11.01 | 5.61 | 8.42 | 3.96 | 1.87 | 6.76 | 28.68 | 6.40 | 5.33 |
| 193 | (120) | 11.63 | 5.91 | 8.86 | 4.22 | 1.97 | 7.00 | 31.91 | 6.64 | 5.61 |

Note: (These rates are not exact Railway rates)

Road Transport Rates (as from 21st November 1974)

(1) Lime

Cartage (Bulk)

| | Per tonne | | Per tonne |
|-------------|-----------|-------------|-----------|
| 2 km | \$0.99 | 8 km (5m) | \$1.40 |
| 16 km (10m) | \$2.01 | 24 km (15m) | \$2.68 |
| 32 km (20m) | \$3.25 | 40 km (25m) | \$3.78 |
| 48 km (30m) | \$4.24 | 56 km (35m) | \$4.69 |
| 64 km (40m) | \$5.07 | 72 km (45m) | \$5.45 |
| 80 km (50m) | \$5.83 | | |

Thereafter, each additional kilometre — \$0.044 (\$0.072 per mile)

Canterbury

(2) Super

(a) Fertiliser Freight Subsidy (as from 1st April 1974)

The subsidy is calculated on the mileage from your farm to the nearest fertilizer works, or, if you have ordered an imported line, to the port of entry.

| | | |
|-------|--------|------------------------|
| First | 30 km | 4.4 cents per tonne/km |
| Next | 130 km | 3.7 cents per tonne/km |
| Over | 160 km | 2.0 cents per tonne/km |

(b) Bulk

| | Per tonne | | Per tonnePer tonne |
|-------------|-----------|-------------|--------------------|
| 2 km | \$1.39 | 8 km (5m) | \$1.79 |
| 16 km (10m) | \$2.50 | 24 km (15m) | \$3.20 |
| 32km (20m) | \$3.81 | 40 km (25m) | \$4.45 |
| 48 km (30m) | \$5.10 | 56 km (35m) | \$5.71 |
| 64 km (40m) | \$6.31 | 72 km (45m) | \$6.85 |
| 80 km (50m) | \$7.40 | | |

Thereafter, each additional kilometre \$0.066 (\$0.108 per mile)

Bags (Loads 3 tonnes and over)

| | Per tonne | | Per tonne |
|-------------|-----------|-------------|-----------|
| 2 km | \$1.64 | 8 km (5m) | \$2.09 |
| 16 km (10m) | \$2.99 | 24 km (15m) | \$3.78 |
| 32 km (20m) | \$4.48 | 40 km (25m) | \$5.12 |
| 48 km (30m) | \$5.70 | 56 km (35m) | \$6.23 |
| 64 km (40m) | \$6.77 | 72 km (45m) | \$7.33 |
| 80 km (50m) | \$7.85 | | |

Thereafter, each additional kilometre \$0.066 (\$0.108 per mile)

Canterbury

(3) Hay (Track and Driver only)

40 bales or more per tonne – less \$0.01 per bale.

| | | | | |
|-------|-------|---------|-------|---------|
| Up to | 8 km | \$0.098 | 16 km | \$0.124 |
| | 24 km | \$0.163 | 32 km | \$0.194 |
| | 40 km | \$0.217 | 38 km | \$0.240 |
| | 56 km | \$0.264 | 64 km | \$0.287 |
| | 72 km | \$0.307 | | |

Thereafter, each additional kilometre \$0.0023 per bale.

(4) Grain

(a) Bagged

Including small seeds under 16 bags to the tonne, and potatoes.

Per Sack

| | | | | |
|-------|-------------|---------|-------------|---------|
| Up to | 2 km (1m) | \$0.116 | 8 km (5m) | \$0.135 |
| | 16 km (10m) | \$0.182 | 24 km (15m) | \$0.230 |
| | 32 km (20m) | \$0.275 | 40 km (25m) | \$0.319 |
| | 48 km (30m) | \$0.362 | 56 km (35m) | \$0.403 |
| | 64 km (40m) | \$0.441 | 72 km (45m) | \$0.482 |
| | 80 km (50m) | \$0.529 | | |

Thereafter, each additional kilometre \$0.0043. Ex paddock – schedule rate plus \$0.046 per sack, includes bag loaded and all labour. Ex heap in paddock – schedule plus \$0.02 per sack.

(b) Bulk (ex acceptable silo)

| | Per tonne | | Per tonne |
|-------------|--------------|-------------|--------------|
| 2 km | \$1.37 | 8 km (5m) | \$1.72 |
| 16 km (10m) | \$2.27 | 24 km (15m) | \$2.76 |
| 32 km (20m) | \$3.23 | 40 km (25m) | \$3.69 |
| 48 km (30m) | \$4.15 | 56 km (35m) | \$4.59 |
| 64 km (40m) | \$5.01 | 72 km (45m) | \$5.45 |
| 80 km (50m) | \$5.87 | 88 km (55m) | \$6.31 |
| 96 km (60m) | \$6.74 | | |

Thereafter, each additional kilometre \$0.053 (\$0.083 per mile).

Use of Carriers Auger – add \$0.28 per tonne.

Ex header – additional \$0.42 per tonne.

(c) **Grain and Grass Seed - Bulk in boxes - In boxes over 813 kilos.**

| | Per tonne | | Per tonne |
|-------------|----------------------|-------------|----------------------|
| 2 km | \$2.27 | 8 km (5m) | \$2.74 |
| 16 km (10m) | \$3.50 | 24 km (15m) | \$4.29 |
| 32 km (20m) | \$4.99 | 40 km (25m) | \$5.62 |
| 48 km (30m) | \$6.23 | 56 km (35m) | \$6.78 |
| 64 km (40m) | \$7.33 | 72 km (45m) | \$7.87 |

Thereafter, each additional kilometre \$0.064.

In boxes 457 - 813 kilos

| | Per tonne | | Per tonne |
|-------------|----------------------|-------------|----------------------|
| 2 km | \$2.76 | 8 km (5m) | \$3.28 |
| 16 km (10m) | \$4.06 | 24 km (15m) | \$4.83 |
| 32 km (20m) | \$5.46 | 40 km (25m) | \$6.10 |
| 48 km (30m) | \$6.63 | 56 km (35m) | \$7.18 |
| 64 km (40m) | \$7.75 | 72 km (45m) | \$8.28 |
| 80 km (50m) | \$8.82 | | |

Each additional kilometre thereafter \$0.064.

In boxes up to 457 kilos

| | Per tonne | | Per tonne |
|-------------|----------------------|-------------|----------------------|
| 2 km | \$3.00 | 8 km (5m) | \$3.50 |
| 16 km (10m) | \$4.29 | 24 km (15m) | \$5.08 |
| 32 km (20m) | \$5.77 | 40 km (25m) | \$6.38 |
| 48 km (30m) | \$7.02 | 56 km (35m) | \$7.56 |
| 64 km (40m) | \$8.11 | 72 km (45m) | \$8.65 |
| 80 km (50m) | \$9.20 | | |

Thereafter each additional kilometre \$0.064.

5. Grass Seed and other small seeds

(a) 16 bags and over to the tonne

| | | | |
|-------------|-----------------|-------------|-----------------|
| 2 km | \$0.109 per bag | 8 km (5m) | \$0.127 per bag |
| 16 km (10m) | \$0.171 per bag | 24 km (15m) | \$0.213 per bag |
| 32 km (20m) | \$0.252 per bag | 40 km (25m) | \$0.288 per bag |
| 48 km (30m) | \$0.322 per bag | 56 km (35m) | \$0.351 per bag |
| 64 km (40m) | \$0.383 per bag | 72 km (45m) | \$0.414 per bag |
| 80 km (50m) | \$0.447 per bag | | |

Thereafter each additional kilometre \$0.0035 (\$0.0055 per mile).

6. Wool by Road

| | | | |
|-------------|-----------------|-------------|-----------------|
| 2 km | \$0.50 per bale | 8 km (5m) | \$0.61 per bale |
| 16 km (10m) | \$0.76 per bale | 24 km (15m) | \$0.92 per bale |
| 32 km (20m) | \$1.08 per bale | 40 km (25m) | \$1.21 per bale |
| 48 km (30m) | \$1.36 per bale | 56 km (35m) | \$1.47 per bale |
| 64 km (40m) | \$1.60 per bale | 72 km (45m) | \$1.67 per bale |
| 80 km (50m) | \$1.77 per bale | | |

Thereafter each additional kilometre \$0.007 (\$0.012 per mile). \$0.13 per bale off ground.

7. Lambs and Hoggets by Road

Per Head

| | Fat Lambs | Store Lambs | Hoggets |
|---------------|-----------|-------------|---------|
| 8 km (5m) | \$0.103 | \$0.094 | \$0.109 |
| 16 km (10m) | \$0.135 | \$0.121 | \$0.145 |
| 32 km (20m) | \$0.192 | \$0.173 | \$0.209 |
| 48 km (30m) | \$0.239 | \$0.213 | \$0.264 |
| 64 km (40m) | \$0.283 | \$0.251 | \$0.314 |
| 80 km (50m) | \$0.328 | \$0.291 | \$0.362 |
| 96 km (60m) | \$0.373 | \$0.328 | \$0.410 |
| 113 km (70m) | \$0.414 | \$0.366 | \$0.452 |
| 129 km (80m) | \$0.452 | \$0.400 | \$0.494 |
| 145 km (90m) | \$0.488 | \$0.432 | \$0.533 |
| 161 km (100m) | \$0.520 | \$0.463 | \$0.568 |

A lamb becomes a hogget on 1 September. A hogget becomes a sheep on 1 January.

8. Sheep
(Per head)

| | Store Sheep | Fat Sheep |
|---------------|-------------|-----------|
| 8 km (5m) | \$0.114 | \$0.131 |
| 16 km (10m) | \$0.153 | \$0.177 |
| 32 km (20m) | \$0.227 | \$0.265 |
| 48 km (30m) | \$0.292 | \$0.343 |
| 64 km (40m) | \$0.347 | \$0.417 |
| 80 km (50m) | \$0.397 | \$0.486 |
| 96 km (60m) | \$0.444 | \$0.549 |
| 113 km (70m) | \$0.490 | \$0.610 |
| 129 km (80m) | \$0.535 | \$0.661 |
| 145 km (90m) | \$0.579 | \$0.715 |
| 161 km (100m) | \$0.615 | \$0.751 |

9. Fat Lambs to Freezing Works (per head)

| | | | |
|---------------|---------|-------------|---------|
| 8 km (5m) | \$0.105 | 16km (10m) | \$0.137 |
| 32 km (20m) | \$0.195 | 48km (30m) | \$0.245 |
| 64 km (40m) | \$0.288 | 80km (50m) | \$0.333 |
| 96 km (60m) | \$0.378 | 113km (70m) | \$0.421 |
| 129 km (80m) | \$0.458 | 145km (90m) | \$0.494 |
| 161 km (100m) | \$0.525 | | |

Penal rates for Sheep and Lambs.

These will apply where the farmer does not give the cartage contractor 24 hours notice of the job to be done.

| | |
|----------------|---------|
| Lambs per head | \$0.022 |
| Sheep per head | \$0.028 |

10. Store Cattle (per head)

| | Calves 2-6 mths | Weaners 7-12 mths | Yearling's 13-18 mths | Store Cattle and Boners |
|---------------|--------------------|----------------------|--------------------------|----------------------------|
| 8 km (5m) | \$0.38 | \$0.48 | \$0.61 | \$0.80 |
| 16 km (10m) | \$0.61 | \$0.69 | \$0.86 | \$1.17 |
| 32 km (20m) | \$0.92 | \$1.11 | \$1.36 | \$1.85 |
| 48 km (30m) | \$1.22 | \$1.46 | \$1.83 | \$2.50 |
| 64 km (40m) | \$1.54 | \$1.81 | \$2.31 | \$3.12 |
| 80 km (50m) | \$1.85 | \$2.13 | \$2.76 | \$3.73 |
| 96 km (60m) | \$2.17 | \$2.46 | \$3.19 | \$4.30 |
| 113 km (70m) | \$2.44 | \$2.78 | \$3.61 | \$4.87 |
| 129 km (80m) | \$2.69 | \$3.06 | \$3.98 | \$5.34 |
| 145 km (90m) | \$2.94 | \$3.35 | \$4.34 | \$5.79 |
| 161 km (100m) | \$3.16 | \$3.61 | \$4.67 | \$6.17 |

11. Fat Cattle (per head)

| | Fat Cattle 19-24 mths | Fat Cattle and in-calf cows | Fat Steers over 3 years |
|---------------|--------------------------|--------------------------------|----------------------------|
| 8 km (5m) | \$0.73 | \$0.92 | \$1.04 |
| 16 km (10m) | \$1.04 | \$1.28 | \$1.48 |
| 32 km (20m) | \$1.62 | \$2.00 | \$2.32 |
| 48 km (30m) | \$2.20 | \$2.68 | \$3.12 |
| 64 km (40m) | \$2.74 | \$3.37 | \$3.90 |
| 80 km (50m) | \$3.25 | \$4.02 | \$4.66 |
| 96 km (60m) | \$3.77 | \$4.63 | \$5.39 |
| 113 km (70m) | \$4.24 | \$5.26 | \$6.06 |
| 129 km (80m) | \$4.67 | \$5.82 | \$6.69 |
| 145 km (90m) | \$5.07 | \$6.36 | \$7.24 |
| 161 km (100m) | \$5.41 | \$6.86 | \$7.73 |

Bulls over 2 years at 3 year steer rate plus \$1.66 per head.

10. FERTILIZERS (as from 1st January 1975)

Fertilizer Subsidy:

(a) Price Subsidy

Farmers are entitled to claim the Fertilizer Price Subsidy of \$24.70 per tonne.

(b) Freight Subsidy (see Fertilizer Transport)

50 kg bags will replace the hundredweight bags.

| Rating N P K S | Flowmaster Fertilizers | Cost per tonne (with subsidy off) | |
|---|--------------------------------------|-----------------------------------|----------|
| | | Bulk | Bags |
| 0 8 0 10 | Flowmaster Super | \$25.75 | \$30.75 |
| 0 6 14 7 | Flowmaster 30% Potash | \$41.10 | \$46.10 |
| 0 7 0 19 | Flowmaster 10% Sulphur Super | \$28.20 | \$33.20 |
| 6 5 5 13 | Flowmaster Multipurpose | \$65.05 | \$70.05 |
| 6 6 0 14 | Flowmaster Nitrogen Super | \$64.05 | \$69.05 |
| 6 5 5 13 | Flowmaster Potato Fertilizer | \$65.05 | \$70.05 |
| 0 6 14 7 | Flowmaster Pea Fertilizer | \$42.35 | \$47.35 |
| Granulated and General Fertilizers | | | |
| 0 9 0 11 | Superphosphate | \$26.10 | \$31.10 |
| 0 8 0 10 | Cobalt Super | \$29.60 | \$34.60 |
| 0 8 0 10 | Copper Super | \$39.15 | \$44.15 |
| 0 8 0 10 | Molybdate Super | \$28.05 | \$33.05 |
| 0 7 0 8 | Serpentine Reverted Super | \$25.15 | \$30.15 |
| 0 7 0 8 | Lucerne Sowing Fertilizer | \$27.65 | \$32.65 |
| 0 6 14 7 | Lucerne Maintenance Fertilizer | \$47.85 | \$52.85 |
| 0 8 0 10 | Boron Super | \$33.90 | \$38.90 |
| 0 7 0 8 | Lime Reverted Super | \$23.25 | \$28.25 |
| 2 7 0 11 | Turnip and Rape Fertilizer | \$39.20 | \$44.20 |
| 2 7 0 11 | Boron Turnip and Rape Fertilizer | \$46.35 | \$51.35 |
| Nitrogen and Special Fertilizers | | | |
| 21 0 0 24 | Ammonium Sulphate | \$146.15 | \$151.15 |
| 0 0 48 0 | Potassium Chloride | \$ 72.60 | \$ 77.60 |
| 46 0 0 0 | Urea | — | \$226.05 |
| 26 0 0 0 | Calcium Ammonium Nitrate (Nitrofort) | — | \$207.95 |
| 0 0 40 17 | Potassium Sulphate | — | \$159.25 |
| 20 0 0 1 | Liquid Nitrogen | \$117.95 | |
| Imported Compound Fertilizers | | | |
| 15 15 5 0 | Cropmaster Premium | — | \$185.40 |
| 12 15 10 0 | Cropmaster Extra | — | \$180.70 |
| 9 12 15 0 | Cropmaster Hi-Yield | — | \$176.00 |
| 6 10 20 0 | Cropmaster Boost | — | \$165.35 |
| 18 20 0 0 | Cropmaster D.A.P. | \$177.95 | \$184.30 |

Spreading Fertilizer

(a) Superphosphate (Per Hectare)

| Average Paddock Size | Cost per hectare |
|----------------------|------------------|
| Under 4 hectares | \$1.80 |
| 4 – 8 hectares | \$1.64 |
| 8 – 16 hectares | \$1.47 |
| Over 16 hectares | \$1.39 |

Minimum cartage as for 3 tonnes.

(b) Aerial Topdressing and oversowing

Basic application rate \$83 per flying hour, which approximates \$11.00 per tonne.

(1) Super application: minimum rates – (per tonne)

| | | |
|-----|-----------------|------------------------|
| (i) | Up to 12 tonnes | \$9.00 |
| | Over 12 tonnes | under 24 tonnes \$8.20 |
| | Over 24 tonnes | \$7.35 |

(2) Lime application:

On a quotation basis.

(3) Insecticide Granules on Crops

\$3.70 to \$5.00 per ha

(4) Oversowing with small seeds

- (i) If seeds mixed with super and super load not reduced, no charge.
- (ii) Seed sown alone: Charged by the hour at \$95 per hour, with spreader.

11. LIME

White Rock Lime Co.

Cost per tonne on trucks at works

| | |
|------------|--------|
| Green Line | \$2.50 |
| Dry Lime | \$3.50 |

(a) Spreading (per hectare)

| | Flat Grassed | Flat Worked | Hill Worked & Grassed |
|--------------------|-----------------|----------------|--------------------------|
| Under 2½ tonnes/ha | \$2.03 | \$2.17 | Flat rates |
| Under 2½ tonnes/ha | \$2.17 | \$2.49 | plus 44 cents |
| Over 2½ tonnes/ha | \$2.49 | \$2.81 | per hectare |

Mechanical loader at rail siding an extra \$0.61 per tonne.

Together with rail and cartage, total costs spread on paddocks are from \$9.00 – \$12.00 per hectare.

(b) Lime Transport Assistance

Lime transport assistance applies only to lime applied for the first time on previously unlimed responsive soils.

The rate of subsidy, irrespective of the means of transport is:

3.7c per tonne kilometre (6c per ton mile) for the first 100 km (=60 miles) and 1.2c per tonne km (2c per ton mile) thereafter, the distance to be calculated from the farmer's nearest works, approved for Lime Transport Assistance.

12. MISCELLANEOUS CONTRACT RATES

Throughout this manual, contract rates listed are minimum prices based on average conditions, and may be increased according to conditions.

- (a) Saw bench – \$8.00 per hour with one operator
- (b) Gorse cutting – \$8.00 per hour
- (c) Tree Topping – \$20.00 per hour
- (d) Stone picking – \$14.00 per hour
- (e) Grain Grinding
and mixing – \$13.00 per hour

13. Seeds ex merchants' stores (subject to alteration)

(a) Wheat

| | Kopara | | Aotea | | Hilgendorf | | Arawa | |
|---------------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|
| | Per 50 kilos | (per bus.) | Per 50 kilos | (per bus.) | Per 50 kilos | (per bus.) | Per 50 kilos | (per bus.) |
| Uncertified | \$5.51 | (\$3.00) | \$5.60 | (\$3.05) | \$5.62 | (\$3.06) | \$5.33 | (\$2.90) |
| 2nd Gen | \$5.51 | (\$3.00) | \$5.60 | (\$3.05) | \$5.62 | (\$3.06) | \$5.33 | (\$2.90) |
| 1st Gen | \$5.57 | (\$3.03) | \$5.65 | (\$3.08) | \$5.66 | (\$3.10) | \$5.39 | (\$2.95) |
| Treating | \$0.61 | | per 50 kilos | | \$0.55 | | per 100 lb | |
| Sacks | \$0.52 | | per 50 kilos | | | | | |
| Total Extra Cost | \$1.13 | | per 50 kilos | | | | | |

(b) Barley

| | Per 50 kilos | (per bus.) | |
|-------------|--------------|------------|--|
| Uncertified | \$4.51 | (\$2.45) | Treating 67c per 50 kilos (\$0.30 per bus.) |
| 2nd Gen | \$4.69 | (\$2.55) | Sacks 67c per 50 kilos (\$0.30 per bus.) |
| 1st Gen | \$4.77 | (\$2.60) | Total Extras \$1.34 per 50 kilos (.60c per bus.) |

(c) Oats

All varieties quoted at \$6.34 per 50 kilos
(\$2.30 per bus.)

(d) Lupins

| | |
|-------------|---------------------|
| Bitter Blue | \$3.68 per 50 kilos |
| Borre | \$4.41 per 50 kilos |
| White | \$7.35 per 50 kilos |

(e) Ryecorn

Both CRD & NAIB \$5.70 per 50 kilos
(\$3.10 per bus.)

(f) Maize

\$7.38 per 50 kilos (feed) (\$3.75 per bushel)

(g) Peas

Field Peas (Contract)

| | | |
|----------------|--------------|-------------|
| Rondo | (\$4.65/bus) | \$171/Tonne |
| White Prolific | (\$4.65/bus) | \$171/Tonne |
| Maples | (\$4.20/bus) | \$154/Tonne |

Free Seed prices – double the above.

(h) Freezing Peas

\$8.00 per 50 kilos (for processing)

(i) Small Seeds

Retail prices from merchants are \$0.20 to \$0.50 per kilo more than price paid to farmer.

This can only be a rough guide as the small seeds market is extremely variable, with daily fluctuations in price.

Root Seeds:

| | | | | |
|--------|-----------------|----------|---------------|-----------------|
| Rape | \$0.60 - \$0.80 | per kilo | Chou moellier | \$1.80 per kilo |
| Turnip | \$1.30 | per kilo | Fodder Beet | |
| Swede | \$1.30 | per kilo | segmented | \$1.54 per kilo |

(j) Aerial application of seed

Variable according to quantity and distance with a minimum basic rate of \$85 per hour.

(k) Seed Requirements

With any seed that is not grown on contract it is usual to buy a quarter of the seed requirement, the other $\frac{3}{4}$ is retained from the crop that has been harvested that season; except for Algerian oats where for best germination usually 1 year old seed is sown. If a farmer is retaining a high grade on the Certification scale then he buys all of his grass seed. If using his own seed it will be treated.

14 STOCK SELLING CHARGES

(a) Yard Fees

Addington

| | |
|--------------|-----|
| Sheep | 6c |
| Fat Cattle | 53c |
| Store Cattle | 43c |
| Vealers | 43c |
| Dairy Cows | 53c |

Addington

| | |
|------------|---------|
| Calves | 43c |
| Bulls | \$1.05c |
| Porkers | 15c |
| Baconers | 15c |
| Store pigs | 10c |

Amberley

| | |
|-------|----|
| Sheep | 5c |
|-------|----|

Coalgate

| | |
|---------------------|-----|
| Sheep shareholders | 7c |
| Non Shareholders | 8c |
| Rams | 25c |
| Calves Shareholders | 70c |
| Non Shareholders | 80c |
| Cattle Shareholders | 80c |
| Non Shareholders | 90c |
| Horses | 25c |
| Pigs | 10c |
| Dogs | 25c |

Hawarden

| | |
|-------|----|
| Sheep | 8c |
|-------|----|

Culverden

| | |
|--------|-----|
| Sheep | 8c |
| Rams | 25c |
| Horses | 25c |
| Dogs | 25c |
| Calves | 43c |

Little River

| | |
|--------|-----|
| Sheep | 8c |
| Cattle | 25c |
| Rams | 25c |

| Sheffield | | Oxford | |
|-----------------------|-----|--------|-----|
| Sheep Shareholders | 7c | Sheep | 8c |
| Sheep Nonshareholders | 8c | Rams | 15c |
| Rams | 12c | | |

(b) Addington Trucking Charges

Sheep — 1c per head for inward and 2c per head for outward trucking or rail
 Cattle — 3c per head inward trucking
 7c per head outward trucking

(c) Commissions on Stock sold through a Stock and Station Agent

| Saleyards | | Clearing Sales | |
|--------------|------|----------------|-------|
| Sheep | 3.5% | Sheep | 4.25% |
| Fat Cattle | 3.5% | Store Cattle | 4.25% |
| Store Cattle | 3.5% | Pigs | 5.5% |
| Vealers | 5.5% | Dairy Cows | 5.5% |
| Bulls | 5.5% | | |

| Saleyards | | Clearing Sales | |
|---------------------|-------|-----------------------|-------|
| Dairy Cattle | 5.5% | Implements and Sundry | 7.5% |
| Pigs | 4.25% | Furniture | 12.5% |
| Horses (Bloodstock) | 6% | Special Sales | |
| Horses | 6% | Stud Cattle | 5.5% |

15. SHEARING EXPENSES

(a) Shed Expenses

Wool packs ex store \$1.75 each plus \$0.03 through — store charges.
 Assess number used at 1 per 150 kilos wool (3 per 1,000 lbs.).

| | | |
|---------------------------------|------------------------------------|---------------|
| Twine 40 threads per hank | 70c per hank | = 7c per bale |
| Glue | 230 gm tin (8 oz.) | = 40c |
| Eartags | \$3.99 per 100 + \$1.00 if stamped | |
| Emery paper — fine | 60c per sheet | |
| — course | 60c per sheet | |
| Shearing plant running expenses | Electricity \$15.00 — \$20.00 | |
| | full motors 35 cents per hour | |

(b) Wool Charges

1974/75

| | |
|--|------------------------------|
| Receiving, weighing, cataloguing, etc. | 1.741 c/kilo |
| Reclassing and/or Binning of Fleece | 2.973 c/kilo |
| Reclassing and/or Binning of oddments | 4.619 c/kilo |
| Wool Board Levy | 3% of Gross Proceeds |
| Commission | 2% gross proceeds |
| Sheep's back insurance (optional) | 14c per \$100 gross proceeds |
| Government Earthquake Insurance | 1c per \$100 gross proceeds |
| Chatham Island Insurance | .50c per bale |

16. TREES

Planting (per 100)

| | |
|----------------|---------------------|
| Radiata | \$5.00 2 year trees |
| Larch) | \$8.00 |
| Thuya) | \$10.00 |
| Muricata) | \$7.00 |
| Arizonica) | \$7.50 |
| Benthami) | \$7.50 |
| Lombardy | |
| Poplars) | \$10.00 |
| Oregans) | \$9.00 3 year trees |
| Cedus Deodora) | \$8.00 2 year trees |

17. WEED and PEST CONTROL

(a) Weed Sprays (1974/75) Approximate prices only

| Common Name of Active Ingredients | Proprietary Brand Names | %A.I. | Retail Prices per Litre (per gal.) | | per kg (per lb) | |
|---|-------------------------------|-------|---------------------------------------|-----------|--------------------|----------|
| Salts of 2, 4 - D | Shell Weedkiller D | 40 | \$1.27 | (\$5.72) | | |
| 2, 4 - D (amine salt) | Weedar 77 | 40 | \$1.28 | (\$5.77) | | |
| | I.C.I. Amine 2, 4 - D | 40 | \$2.61 | (\$11.85) | | |
| 2, 4 - D (Sodium salt) | Frenokone | 75 | | | \$3.56 | (\$1.61) |
| | Phenoxone | 80 | | | \$1.76 | (\$0.80) |

Volatile Esters of 2, 4 - D

| | | | | | | |
|---------------------------|-------------------------|----|--------|----------|--|--|
| 2, 4 - D (butyl ester) | Shell Weedkiller E-Vol. | 36 | \$1.62 | (\$7.30) | | |
| | Weedone 57 Vol. | 36 | \$1.15 | (\$5.19) | | |
| 2, 4 - D (ethyl ester) | Ethone 2, 4 - D | 36 | \$1.60 | (\$7.26) | | |

Low Volatile Esters of

| | | | | | | |
|------------------------|-----------------------------|------|--------|-----------|--------|----------|
| 2, 4 - D | | | | | | |
| 2, 4 - D (octyl ester) | Ethone L.V. | 36 | \$1.60 | (\$7.26) | | |
| | Shell Weedkiller A | 72 | \$2.48 | (\$11.14) | | |
| 2, 4 - DB | I.C.I. 2, 4 - DB | 40 | \$2.52 | (\$11.44) | | |
| | Shell Weedkiller L.4 | 40 | \$1.93 | (\$8.70) | | |
| | Weedar Butyrac 2, 4 - DB | 40 | \$2.00 | (\$9.00) | | |
| Dicamba | I.C.I. Dicamba | 20 | \$4.91 | (\$22.80) | | |
| | Shell Dicamba 2 | 20 | \$4.98 | (\$22.40) | | |
| 2, 2 - DPA | Dalapon | 74 | | | \$1.54 | (\$0.70) |
| | Dowpon | 74 | | | \$1.76 | (\$0.80) |
| | Icapon | 75 | | | \$1.58 | (\$0.72) |
| Dinoseb | Shell DNBP | 15.9 | \$1.48 | (\$6.65) | | |
| | ICI DNBP | 15.9 | \$1.39 | (\$6.25) | | |
| | Sinox P.E. | 36 | \$2.04 | (\$9.18) | | |
| MCPA | Agroxone 4 | 37.5 | \$1.78 | (\$8.08) | | |
| | Shell Weedkiller M | 37.5 | \$1.81 | (\$8.13) | | |
| | Weedar MCPA | 37.5 | \$1.15 | (\$5.19) | | |
| MCPB | Bexone | 40 | \$2.29 | (\$10.40) | | |
| | Shell Weedkiller P4 | 40 | \$1.60 | (\$7.20) | | |
| | Weedar Butyrac MCPB | 40 | \$1.60 | (\$7.20) | | |
| Sodium Chlorate | Atlacide | | | | \$1.24 | (\$0.64) |

Volatile Esters of

| | | | | | | |
|--------------------------|-------------------------|----|--------|-----------|--|--|
| 2, 4, 5 - T | | | | | | |
| 2, 4, 5 - T (butylester) | Butoxone Vol. | 36 | \$2.78 | (\$12.62) | | |
| | Shell 2, 4, 5 - T extra | 36 | \$2.81 | (\$12.65) | | |

| Common Name of Active Ingredient | Proprietary Brand Names | %A.I. | Retail Prices per Litre (per gal.) | |
|---|-------------------------------|-------|---------------------------------------|-----------|
| (butylester) Cont'd | | | | |
| | Weedone 2, 4, 5 – T Vol. | 36 | \$1.96 | (\$8.80) |
| | Shell Weedkiller B plus | 72 | \$5.44 | (\$24.55) |
| | Weedone High Ester T | 72 | \$3.72 | (\$16.74) |
| Low Bolatile Esters of | | | | |
| 2, 4, 5 – T | | | | |
| 2, 4, 5 – T (octylester) | Butoxone L.V. | 36 | \$3.32 | (\$15.07) |
| Paraquat | Gramoxone | 20 | \$6.19 | (\$28.10) |
| 2, 4, 6 – tri- chlorophenyl, 4 nitropheryl 1 ether 0.125 picloram | Fodderkleen | 20 | \$1.96 | (\$ 8.84) |

Pesticides (approximate prices only)

For full information regarding common names, proprietary names, % A.I. etc., refer to the Handbook of Agricultural Chemicals, a copy of which can be obtained from the Agricultural Chemicals Board, P.O. Box 1500, Wellington.

| Common Name of Active Ingredient | Proprietary Brand Names | %A.I. | Retail Prices per kg (per lb) | | per litre (per gal) |
|--|-------------------------------|-------|----------------------------------|----------|------------------------|
| Carbaryl | I.W.D. Pestone 80 | 80 | \$3.36 | (\$1.53) | |
| Diazinon | Dyzol 20G | 20 | \$1.69 | (\$0.77) | |
| Dichlorvos | Vapona Concentrate | 108 | \$7.73 per 16 oz bottle | | |
| Fenitrothion | Gramothion 60 | 60 | | | \$4.20 (\$18.90) |
| Malathion | I.W.D. Malthion 50 | 50 | | | \$2.32 (\$10.44) |
| | Malathion 50 E.C. | 50 | | | \$1.98 (\$8.90) |
| Phorate | Thimet 10G | 10 | \$1.10 | (\$0.50) | |
| Trichlorfon | Lepidex | 60 | | | \$2.58 (\$11.62) |
| | Shell Trichlorfon | 60 | | | \$2.58 (\$11.61) |
| | Shell Dipterex | 95 | \$3.63 | (\$1.65) | |
| Lindane | Lindane Pellets | 20 | \$3.92 | (\$1.78) | |
| Prophos | Mocap 20G | 20 | \$2.42 | (\$1.10) | |
| Bromophos | Nexion 40 E.C. | 40 | | | \$5.11 (\$23.01) |

(a) Aerial application – spraying

(1) Fixed wing planes (materials extra)

(i) Crops and Pasture – Weedkillers

Spraying 36–46 l. (8 – 10 gals)

0.5 ha – 50 ha \$7.40 per ha

50 ha and over \$5.40 per ha

\$8.00 to \$10.00 for more hazardous materials.

This is for all hormone spraying crops.

(ii) Insecticides

\$7.50 per hectare for any area.

Spraying

Charges vary according to amount of water being used and distance flown.

10 gallons or less (45.5 litres) \$ 7.40 per ha

20 gallons (90.9 litres) \$10.75 per ha

40 gallons (182.0 litres) \$22 – \$32 per ha

(2) Helicopters

| | Water (Gals/acre) | Approx. ha/flight | (Acres/ flight) | Cost Per ha (acre) | |
|---|----------------------|----------------------|--------------------|-----------------------|-----------|
| Gorse, Blackberry, Heath, Tutu, Tutsen, Broom | (50) | 0.6 | (1½) | \$37.05 | (\$15.00) |
| Willows, Preburn, Gorse, Broom | (25) | 1.5 | (3¾) | \$22.73 | (\$ 9.00) |
| Lupins, Ragwort | (10) | 3.0 | (7½) | \$ 9.88 | (\$ 4.00) |
| Thistles, Potatoes, Crops, Buttercup | (5) | 7.7 | (19) | \$ 7.41 | (\$ 3.00) |
| Hire Flying Charge on any job, is \$150.00 per hour | | | | | |

(b) Ground application (materials extra)

Gun Spraying

One man plus fully equipped truck \$9.00 per hour, additional man \$3.75 per hour.

Knapsack Spraying

Motorised Knapsack unit \$5.00 per hour, Tanker Unit \$2.00 per hour.

Boom Spraying

Up to 225 litres per ha \$6.20 per ha, (20 gal/ac). 225 to 340 litres per ha \$7.40 per ha, (20 to 30 gals/ac), Over 340 litres per ha plus 10c per additional gallon or 2c per additional litre. Mileage allowance of Mileage allowance of 50 c per km.

18. REPAIRS AND MAINTENANCE

The best way to estimate the likely expenditure on repair and maintenance for all plant, buildings, fences, sheep and cattle yards, tracks and culverts is; (1) the close scrutiny of the farm accounts and (2) questioning the farmer directly, on likely expenditure programme.

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 strongly dependent upon the income for that particular year.

| | | |
|----------------------------|----------|-------------------------|
| Dwellings | 2½— 5% |) depending upon the |
| Farm buildings | 2½— 5% |) age of the building |
| Piggeries | 5 — 10% | |
| Water supply | Up to 5% | depending on water type |
| Implements and plant | 7½— 15% | depending upon use |
| Roads, tracks and culverts | 5 — 10% | depending on locality |
| Yards and dip | 2½— 5% | |

19. VEHICLE OR MOTOR EXPENSES

(a) Fuel, Oil and Grease

| | | |
|------------------------|---|-------------------------------|
| Light trucks and cars | — | allow 5.0 cents per kilometre |
| Heavy Trucks | — | allow 8.0 cents per kilometre |
| Wheel tractors Petrol | — | allow \$1.30 per hour |
| Diesel | — | allow \$1.05 per hour |
| Crawler tractors | — | allow \$1.10 per hour |
| Baler (P.T.O.) | — | allow \$0.30 per hour |
| Header — Tractor drawn | — | allow 20 cents per hour |
| Auto | — | allow \$1.50 per hour P.T.O. |

(b) Repairs and Maintenance

Once again the best way to estimate the 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:

| | |
|----------------------------------|---------------------------|
| Light trucks and Cars | 10.00 cents per kilometre |
| Wheel Tractors (Petrol + Diesel) | 40 cents per hour |
| Crawler tractors | \$1.00 per hour |
| Mobile Plant | 10% of value |

(c) Hourly Tractor Running Costs: Pers. Comm. M. Snook (Sockburn Motors) (Costed 1974)

| | |
|--|----------|
| 70 – 80 hp Tractor, over 4,000 hours in 3 years | Per Hour |
| Fuel: 2 gals/hr @ \$0.40/gal. | 0.80 |
| Engine Oil: Top ups and changes (1½ gal. cap.) | 0.10 |
| Transmission Oil: Changes (14 gal. cap.) | 0.03 |
| Engine Oil Filters: 1 @ \$6.50/300 hours | 0.02 |
| Fuel Oil Filters: 1 @ \$4.60/600 hours | 0.01 |
| Injector Servicing: 1 service @ \$30/1,300 hours | 0.03 |
| Battery: 1 replacement @ \$90.00 over lifetime | 0.03 |
| Tyres: 2 relugs or replacements over lifetime | 0.06 |
| Anti-freeze: tyres and radiator | 0.02 |
| Air cleaner | 0.02 |
| Grease | 0.02 |
| General Renewal Repairs | 0.07 |
| Registration | 0.02 |
| Insurance | 0.05 |
| | <hr/> |
| | \$1.28 |

So, tractor running cost estimates – 1974/75

| | |
|------------|-------------|
| 30 – 40 hp | – \$1.10/hr |
| 60 – 70 hp | – \$1.20/hr |
| 70 – 80 hp | – \$1.30/hr |

**Hourly Header Running Cost: Pers. Comm. E.L. Hagen
(12' Diesel Header) (Costed 1973 revised 1974/75)**

| | |
|-------------------------------|--------|
| Fuel Cost: 3½ gal./hour | \$1.50 |
| Oil Change: \$12.00/150 hours | \$0.08 |

| | |
|---------------------------------------|--------|
| Oil Filters: \$10.00/150 hours | 0.06 |
| Fuel Filters | 0.02 |
| Air Cleaner: 1 element/year @ \$15.00 | 0.08 |
| Grease: \$4.00/100 hours | 0.04 |
| Diesel injection servicing | 0.06 |
| | <hr/> |
| Direct Costs of Engine: | \$1.84 |
| Insurance, Registration | 0.50 |
| Breakages | \$3.00 |
| | <hr/> |
| Gives hourly running cost: | \$5.34 |

Silage Making:

| | |
|--|-----------|
| Over 5 years, or 4,725 tons silage | |
| Net cost of servicing, registration, insurance | 0.15c/ton |
| Rate — 4.5 tons per hour | |

Baling Cost:

| | |
|--|-----------------|
| 4 year replacement (estimated life is 100,000 + bales) | |
| Average Baler: | Hourly Cost |
| Grease and Oil: | 0.10 |
| General Repairs: | 1.00 |
| Insurance: | 0.20 |
| | <hr/> |
| Total hourly cost: | \$1.30 |
| Say: 250 bales lucerne/hour | = 0.52c/bale |
| 175 bales straw/hour | = 0.74c/bale |
| Including twine: @ 5.31c/bale | |
| Total Cost/bale: | |
| Straw | = \$0.0583/bale |
| Lucerne Hay | = \$0.0605/bale |

- (d) Registration (as at June 1974): the revised figures for 1975 are available in May and it is suggested that students add \$4 to \$5 to these figures in the meantime.

| | |
|-----------------|------------------|
| Cars | \$25.20 per year |
| Trucks — Light | \$25.45 per year |
| — Heavy | \$31.45 per year |
| Wheel Tractors | \$10.20 per year |
| Trailers— Light | \$ 6.80 per year |
| — Heavy | \$10.80 per year |
| Motor Cycles | \$16.60 per year |

In addition to registration Fees farmers with heavy trucks must pay Heavy Traffic Licence fees as follows:

| Laden weight Tonnes (tons) | Fee (for 12 months) |
|--------------------------------------|----------------------------|
| 2.54 tons | \$10.64 |
| 5.08 tons | \$ 36.00 |
| 7.62 tons | \$ 84.00 |
| 10.16 tons | \$169.33 |
| 15.24 tons | \$318.67 |
| 20.32 tons | \$458.67 |
| 25.40 tons | \$598.67 |
| 30.48 tons | \$738.67 |

(d) Fuels

83 Octane Petrol 14.35c per litre less 4.1c per litre for agricultural use.

∴ net price to farmers – 10.15c per litre

96 Octane Petrol 15.01 per litre less 4.1c per litre for agricultural use.

∴ net price to farmers – 10.91c per litre

Diesoline 9.06c per litre

Multiservice Oil (for Diesel and Petrol Engines) \$0.40 per litre
in 200 litre drums

Grease (Multiservice) \$0.60 per kilo

(e) Delivery of bulk fuels

Free delivery of bulk fuels, irrespective of distance.

20 ADMINISTRATION EXPENSES

(a) Accountancy

Accountants have a scale of fees based on input of time taken in compiling returns and services required by their clients.

Some of the reasons why fees vary considerably are:

- (i) The adequacy of the presentation of farm records to the accountant by the farmer
- (ii) The form of ownership—individual, company, or partnership, and if there is a trust account involved also.

- (iii) The amount of information the farmer wants: advice on management, financial advice, trial balances, etc.
- (iv) The degree of intensification of the farming operations
- (v) 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 lie within the approximate range of \$150 – \$350.

(b) General Administration

Legal expenses incurred by an established farmer are negligible and can be discounted in budgeting.

Banking charges, stationery and postage vary with size of unit and intensive nature of the management, from \$50.00 to \$100.00.

(c) Telephone

(i) Rentals (Residential)

Basic rate within the exchange area with an extra charge of \$4.12/furlong or \$17.12/kilometre outside the exchange area.

Continuous Exchange

| | Individual | 2 | 3 | 4 | 5 | 6–10 Party |
|---------------------|------------|---------|---------|---------|---------|------------|
| Base rate | \$61.10 | \$52.88 | \$51.70 | \$50.53 | \$47.00 | \$42.30 |
| up to 3.5km (2 mls) | | | | | | |

Plus mileage from Exchange

| | | |
|------------|---|---|
| Individual | — | \$1.46 per 100m for the first 8 km \$0.73 per 100m or part thereafter |
| 2 party | — | \$0.73 per 100m for the first 8 km \$0.44 per 100m thereafter |
| 3 party | — | \$0.35 per 100m for the first 8km, then \$0.91 per km thereafter |
| 4 party | — | \$0.29 per 100m for the first 8km, then \$0.91 per km thereafter |
| 5 party | — | \$2.56 per 100m for the first 5km, then \$0.91 per km up to 32km; \$0.58 per km thereafter |
| 6–10 party | — | \$1.83 per km for the first 5km, then \$0.91 per km up to 32 km; \$0.58 per km thereafter |

21 STANDING CHARGES (a) 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. The following figures are from insurance companies as at 6.2.74.

- (i) Buildings per \$100 value (Fire Cover only)
 - Dwellings Brick \$0.175 Wood \$0.26
 - Outbuildings Brick — concrete or earth floor \$0.125
 - Wood — concrete or earth floor \$0.280
- (ii) Plant: per \$100 value
 - Fire only — (a) All engine functioned farm machinery \$1.12 for first \$200 and \$0.280 thereafter.
 - (b) Any other farm machinery and equipment including plant, P.T.O. balers and non engine functioned implements anywhere in the district. Rate \$0.395.
 - (c) Manures and general farm produce whilst on the farm. Rate \$0.280.
 - Comprehensive — Harvesting: self propelled \$7.00 for first \$400 plus \$0.425 per \$100.
When mechanical damage occurs, the first \$50 is now payable by the owner. Where internal damage to harvesting equipment an additional premium of 50% of the basic premium is payable.
Tractor: \$6.00 for first \$400 plus \$0.375 per \$200 thereafter.
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 \$0.05 per \$100 Earthquake and War Risk.

(iii) Tractor Tyre Insurance – Tyres are insured for farmers at 2.750% of their value, and for contractors at 4.125%, with a minimum of \$5.00 per tractor. No claim under \$2.00 is now payable.

(iv) Crops: per \$100 value

(a) Growing or cut in the field (including threshing) in any building or silo and transit risk \$0.490 (time limit up to 12 months).

(b) As per above but excluding whilst in any building or silo \$0.430 3 month limit of cover.

Hay: \$0.280.

(v) Employers' Liability:

Accident Commission – All employees will be covered by a levy paid to the Inland Revenue Department

(vi) Personal Accident (owners' personal cover)

Details vary, but a typical cover would be as follows:

Death \$10,000. Total disablement from accident \$60 per week.

Total disablement from disease \$60 per week. Premium \$96.00 per annum.

(vii) 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 | \$ 10,000 | Premium | \$ 3.25 |
| | \$ 20,000 | | \$ 5.00 |
| | \$ 40,000 | | \$ 8.00 |
| | \$100,000 | | \$15.00 |

The Premiums are based on the ownership of one property.

Sale of goods/products Indemnity
Additional premium

| | |
|-----------|----------|
| \$ 10,000 | 50 cents |
| \$ 20,000 | 60 cents |
| \$ 40,000 | 70 cents |
| \$100,000 | 75 cents |

(viii) Wool

From sheep's back to wool store – \$0.15 per \$100
gross value plus earthquake \$0.004 per \$100
gross value for 60 days

(ix) Shelter belts (excluding live hedge fencing)

Rate 1.406%

Exclude personal and life insurance

(b) Rates

The main classes of rates are as follows:

- (i) General County rates for the costs involved in administering the County.
- (ii) Special rates for ad hoc bodies e.g. Catchment, Drainage Boards.
- (iii) Special rates for repayment of loans, raised by any local body.
- (iv) Water supply charges where stock water is supplied by any local body e.g. water races. County water schemes
- (v) Pest Destruction Board rates where the farm is in a board district.

All countries rate on either the Capital or Unimproved values. Water and pest destruction rates may be assessed on either per acre, Capital value or unimproved value basis.

For budgeting purposes ask the farmer for the total rates.

(c) Interest

Interest rates vary with personal element, risks, and security offered. They also fluctuate with the Bank's interest charges. At present:

| | | | |
|---|-----|---|-----|
| Flat Mortgage interest rates are | 8% | — | 10% |
| Table Mortgage interest rates are | 7½% | — | 9½% |
| Bank overdraft interest rates are | 8% | — | 9% |
| Stock and Station Agents interest rates are | 9% | — | 10% |

For assessment of Working Capital see Section I. When budgeting use 8% on total Working Capital.

(d) **Rent** — charge actual rental paid by the farmer.

Renewed Rents on Crown Renewable Leases are 4½% of Crown Rental Value, as from 1971. Rentals carry a ½% rebate for prompt payment, thus to calculate C.R.V. gross rentals must be ascertained. Short term leases rents usually assessed within the range of 6% — 8% of Capital Value.

22. BUILDINGS

| | | | |
|---------------|---|---------------|--------------------|
| (a) Dwellings | — | \$140 — \$195 | per m ² |
| (b) Garages | — | \$ 30 — \$ 60 | per m ² |
| (c) Woolsheds | — | \$ 35 — \$ 60 | per m ² |
| (d) Haybarns | | | |

(i) Lean-to 4.3m — 3.7m (roof only)

| | Bale Capacity | Cost per m ² | Cost/bale |
|-------|---------------|-------------------------|-----------|
| Steel | 1500—3000 | \$10.00 — \$13.50 | 48c — 64c |
| Wood | 1200—3000 | \$ 8.50 — \$12.00 | 40c — 57c |

(ii) Gable — 4.3m stud (roof only)

| | Bale Capacity | Cost per m ² | Cost/bale |
|-------|---------------|-------------------------|-----------|
| Steel | 1200—3000 | \$10.50 — \$14.00 | 50c — 66c |
| Wood | 1200—3000 | \$10.00 — \$13.50 | 48c — 64c |

(iii) Gable — 4.3m stud (enclosed 3 sides)

| | Bale Capacity | Cost per m ² | Cost/bale |
|-------|---------------|-------------------------|-----------|
| Steel | 1200—3000 | \$17.00 — \$19.00 | 80c — 90c |

(e) Implement Sheds

(i) Lean-to 3.7m — 3.0m stud

| | Area (sq.m.) | Total Cost | Cost per m ² (earth floor) |
|-------|--------------|----------------|---------------------------------------|
| Steel | 35 — 130 | \$630 — \$3120 | \$18.00 — \$24.00 |
| Wood | 35 — 130 | \$600 — \$3000 | \$17.00 — \$23.00 |

(ii) Gable — 4.3m stud

| | Area (m ²) | Total Cost | Cost per m ² (earth floor) |
|------|------------------------|----------------|---------------------------------------|
| Wood | 35 — 130 | \$630 — \$3120 | \$18.00 — \$24.00 |

(f) Sheepyards

(i) Hardwood Posts, rails and gates

| Capacity | 400 sheep | 750 sheep | 1000 sheep | 1500 sheep |
|----------------------------------|-----------|-----------|------------|------------|
| Cost per lineal metre of yarding | \$5.00 | \$4.75 | \$4.50 | \$4.25 |

(ii) "Cyclone" Sheep Yards

| | |
|---------------------------|--------------------------------|
| Standard 1200 plan | \$2213.00 |
| Standard 500 plan | \$1805.00 |
| Standard Sheeppyard gates | — 3m Opening \$26.00 |
| | 2.4m Opening \$22.00 |
| Yard Fences | from \$ 11.12 per linear metre |

(g) Cattle Yards "Cyclone"

| | |
|-------------------------------------|--------------------------------------|
| Standard Cattle Gates | 1m x 2.1m wide 4 rail \$33.40 |
| | 5 rail \$36.00 |
| | 1.3m x 2.1m wide 6 rail \$40.10 |
| Yard Fences | 5 rail from \$13.94 per linear metre |
| | 6 rail from \$15.42 per linear metre |
| Forcing Pen Race and Drafting Games | from \$24.93 per linear metre |
| Dehorning Bail | \$158.50 |

(h) Bulk Storage — Cost of Storage Buildings (1974)

(1) Storage in an Existing Shed

- (a) By installing plywood silos (kitset type) depends on shed floor being moisture and vermin proof: Standard type without roof but with door.

Standard 40 tonne \$210.60, \$5.27 per tonne

- (b) Wire mesh lined with scrim. Scrim last up to 3 years.

| | |
|--|----------|
| 15.55m (circumference) x 2.4m high — 34 tonnes | \$81.34 |
| Hessian | \$25.00 |
| Total Cost | \$106.34 |

— per tonne \$3.13

(2) Single Purpose Storage ('American Line')

- (a) Corrugated Steel Silo — Permanent, weather proof, vermin proof.

| Diameter metres | Height m | Capacity (tonnes, wheat) | Price \$ | |
|--------------------|-------------|-----------------------------|----------|-----------|
| | | | Kitset | Erection* |
| 4.6 | 3.7 | 58 | 916 | 185 |
| 4.6 | 4.9 | 75 | 1091 | 250 |
| 5.5 | 4.9 | 110 | 1293 | 354 |
| 6.4 | 4.3 | 135 | 1531 | (apply) |
| 6.4 | 4.9 | 152 | 1707 | " |
| 7.1 | 4.3 | 180 | 1939 | " |
| 7.1 | 4.9 | 202 | 1990 | " |

(4) Drying Grain (Costed 1971)

| Drying 1 batch of 81 tonne wheat per season with: | Cents/tonne |
|--|-------------|
| (1) All electric (average Canterbury power cost) | 18.00 |
| (2) All electric (Central Canterbury) | 24.00 |
| (3) All electric (Mid Canterbury) | 30.00 |
| (4) All electric (South Canterbury) | 39.00 |
| (5) Electric motor and diesel heater (S. Canterbury) | 15.00 |
| (6) Tractor and PTO fan | 16.00 |
| (7) Second hand engine | 15.00 |
| (8) Farm built (no overheads) | 3.00 |
| (9) Contract Drying Charges | 33.00 |

Dairy Shed Costs: (1974)

—\$750 - \$1,300 per set of cups. In practice, this varies widely, with the type of shed built, and modifications made.

Two Examples Are:

8-a-side, highline herringbone

| | |
|--------------------------------------|----------|
| Building plus yards (materials only) | \$5,000 |
| Machines | \$2,072 |
| Water supply (at shed only) | \$1,000 |
| Waste disposal | \$ 800 |
| Refrigerated storage (3.H.P.) | \$ 750 |
| Electrician | \$ 800 |
| Total Cost (excluding labour) | \$10,422 |

The total cost with labour may be \$2000 - \$3000 more if all labour is contract.

Cost/unit with labour \$12,000

12-a-side, highline, herringbone

| | |
|--------------------------------------|----------|
| Building plus yards (materials only) | \$5,500 |
| Machines | \$2,725 |
| Water supply (at shed only) | \$1,000 |
| Waste Disposal | \$ 800 |
| Refrigerated Storage (3 H.P.) | \$ 750 |
| Electrician | \$ 800 |
| Total Cost (excluding labour) | \$11,950 |

Turnstyles:

| | |
|--|---------------|
| 28 bail turnstyle (200 cows) | \$21,000 |
| Includes – rectangular yards for 200 cows | \$ 750/unit |
| – no labour supplied (contract) | |
| – completely new installation | |
| 36 bail turnstyle (500 cows) | \$36,500 |
| Built on new site, water storage under vat | |
| office, smoko room and store | \$ 1,000/bail |

23. FARM MACHINERY

Prices as at 1.1.75 unless otherwise stated:

Tractors

| Case (all include power shift) | | | | \$ |
|--------------------------------|------|----------|--------------|--------|
| Model | 870 | 67.9 kw | (91 b.h.p.) | 10,200 |
| Model | 970 | 81.3 kw | (109 b.h.p.) | 13,635 |
| Model | 1070 | 95.5 kw | (128 b.h.p.) | 15,300 |
| Model | 1270 | 113.4 kw | (152 b.h.p.) | 18,100 |
| Model | 1370 | 128.3 kw | (172 b.h.p.) | 20,000 |
| Model | 2470 | 128.3 kw | (172 b.h.p.) | 40,000 |

County

| | | | | |
|--------|------|-----------------------------|--|--------|
| County | 754 | — 4 W.D., 77 h.p., 8 speed | | 10,739 |
| County | 1164 | — 4 W.D., 113 h.p., 8 speed | | 14,099 |

David Brown (all include safety frame)

| | | | | |
|-------|------|------------|---------------|--------|
| Model | 885 | 34.0 kw | (46 b.h.p.) | 4,914 |
| Model | 990 | 41.0 kw | (55 b.h.p.) | 5,502 |
| Model | 995 | 46.0 kw | (62 b.h.p.) | 5,989 |
| Model | 996 | 46.0 kw | (62 b.h.p.) | 6,170 |
| Model | 1210 | 53.7 kw | (72 b.h.p.) | 6,642 |
| Model | 1210 | | 4 wheel drive | 10,476 |
| Model | 1212 | Hydrashift | | 7,246 |

Fiat

| | | | | |
|-------|---------|---------|------------------------|--------|
| Model | 300 | 20.9 kw | (28 b.h.p.) | 3,864 |
| Model | 350 | 26.1 kw | (35 b.h.p.) | 4,490 |
| Model | 480/6 | 35.8 kw | (48 b.h.p.) Six Speed | 4,816 |
| Model | 540DT | 40.3 kw | (54 b.h.p.) Indpt PTO | |
| | | | P/S | 6,992 |
| Model | 640DT | 47.7 kw | (64 b.h.p.) Indpt PTO | |
| | | | P/S | 7,552 |
| Model | 750/7DT | 57.4 kw | (77 b.h.p.) Indpt PTO | |
| | | | P/S | 10,210 |
| Model | 850/DT | 63.4 kw | (85 b.h.p.) Indpt PTO | |
| | | | P/S | 13,216 |
| Model | 1000/DT | 74.5 kw | (100 b.h.p.) Indpt PTO | |
| | | | P/S | 14,612 |

Fiat Crawler

| | | | | |
|-------|-------|------------------------|--------------|--------|
| Model | 505CM | 37.3 kw | (50 b.h.p.) | |
| | | (Add \$2300 for Blade) | | 7,910 |
| Model | 605CM | 41.8 kw | (50 b.h.p.) | |
| | | (Add \$2300 for Blade) | | 8,832 |
| Model | 665 | 44.7 kw | (60 b.h.p.) | |
| | | (Add \$2500 for Blade) | | 10,700 |
| Model | A.D.7 | (with blade) | | 24,500 |

Ford

| | | |
|-----------|--|-------|
| Ford 2000 | — 29.1 kw (39 b.h.p.) petrol | 3,642 |
| Ford 2000 | — 29.1 kw (39 b.h.p.) Diesel | 3,667 |
| Ford 3000 | — 34.0 kw (46 b.h.p.) Diesel with power steering | 4,052 |
| Ford 4000 | — 46.0 kw (62 b.h.p.) Diesel | 5,041 |
| Ford 5000 | — 53.7 kw (77 b.h.p.) Diesel | 5,840 |
| Ford 7000 | — 64.9 kw (93 b.h.p.) Diesel with load monitor | 7,628 |

International

| | | | | |
|-------|-------|-------------|------------------|--------|
| Model | 354 | 30 kw | (37.5 b.h.p.) | 3,694 |
| Model | 444 | 33.6 kw | (45 b.h.p.) | 4,630 |
| Model | 454 | 38.8 kw | (520 b.h.p.) | |
| | | Standard | | 4,835 |
| | | T.A. | | 5,117 |
| Model | 474 | 46.2 kw | (62 b.h.p.) | |
| | | Standard | | 5,981 |
| | | T.A. | | 6,263 |
| Model | 574 | 50.7 kw | (68.0 b.h.p.) | |
| | | Standard | | 6,048 |
| | | T.A. | | 6,330 |
| | | Hydrostatic | | 7,199 |
| Model | 674 | 58.2 kw | (78 b.h.p.) | 6,378 |
| Model | 766 | 73.9 kw | (99 b.h.p.) | 16,565 |
| Model | 1066 | 109.7 kw | (147 b.h.p.) | 19,605 |
| Model | H-100 | | (103 p.t.o.h.p.) | 24,068 |

International Crawlers

| | | | | |
|-------|------|------------|----------------|--------|
| Model | BTD6 | 41.0 kw | (55 b.h.p.) | 7,149 |
| Model | BTD8 | 46.6 kw | (62.5 b.h.p.) | |
| | | 'A' Series | | 11,831 |
| | | 'B' Series | | 14,348 |

John Deere

| | | | | |
|-------|------|---------------|------------|--------|
| Model | 1530 | 37.3 kw | (50 h.p.) | 5,200 |
| Model | 2030 | 44.7 kw | (60 h.p.) | 6,493 |
| Model | 2130 | 52.9 kw | (71 h.p.) | 7,115 |
| Model | 4030 | 59.7 kw | (80 h.p.) | 10,984 |
| Model | 4230 | 75.0 kw | (100 h.p.) | 13,950 |
| Model | 4430 | 93.2 kw | (125 h.p.) | 14,700 |
| Model | 4630 | 111.9 kw | (150 h.p.) | 17,000 |
| Model | 7520 | 4 wheel drive | (175 h.p.) | 29,000 |

Leyland

| | | | | |
|-------|------------------------|---------|---------------------------------------|-------|
| Model | 154 Mini | 20.9 kw | (28 b.h.p.) Diesel | 2,755 |
| Model | 245 | 34.0 kw | (46 b.h.p.) Diesel | 4,158 |
| Model | 255 (Special Build) | 41.0 kw | (55 b.h.p.) | 4,630 |
| Model | 355 Deluxe | 41.0 kw | (55 b.h.p.) P/S 750 x 16, 13 x 28 | 4,436 |
| Model | 270 Deluxe | 52.2 kw | (70 b.h.p.) 750 x 16, 14 x 30 | 5,077 |

Massey Fergusson

| | | | | |
|------|------|---------|---|-------|
| M.F. | 135 | 33.6 kw | (45 b.h.p.) standard | 4,315 |
| | | 33.6 kw | (45 b.h.p.) standard and power steering | 4,527 |
| | | 33.6 kw | (45 b.h.p.) Multi- power only | 4,593 |
| M.F. | 148 | 36.5 kw | (49 b.h.p.) Multi- power P/S | 5,233 |
| M.F. | 165 | 45.5 kw | (61 b.h.p.) Standard P/S | 5,551 |
| | | 45.5 kw | (61 b.h.p.) Multi- power P/S | 5,880 |
| M.F. | 168 | 51.5 kw | (69 b.h.p.) Multi- power P/S | 6,193 |
| M.F. | 185 | 55.9 kw | (75 b.h.p.) Standard P/S | 6,303 |
| M.F. | 188 | 55.9 kw | (75 b.h.p.) Multi- power P/S | 6,756 |
| M.F. | 1080 | 67.0 kw | (90 b.h.p.) Multi- power P/S | |

Prices when
Available

| | | | | |
|------|------|---------------|------------------------------|-----------------------|
| M.F. | 1080 | 4 wheel drive | | Prices when Available |
| M.F. | 1155 | 111.9 kw | (155 b.h.p.) Multi-power P/S | Prices when Available |
| M.F. | 1105 | | (110 b.h.p.) Turbo-charged | Prices when Available |

Add \$139 for Safety Frames

Same

| | | | | |
|-------|-----------|---------|---------------------|--------|
| Model | Delphino | 26.1 kw | (35 b.h.p.) 4 W.D. | 5,440 |
| Model | Minetauro | 41.0 kw | (55 b.h.p.) 4 W.D. | 7,370 |
| Model | Corsaro | 54.4 kw | (73 b.h.p.) 4 W.D. | 9,050 |
| Model | Saturno | 58.2 kw | (78 b.h.p.) 4 W.D. | 9,870 |
| Model | Drago | 74.5 kw | (100 b.h.p.) 4 W.D. | 13,500 |

Add \$153 for Frames.

New Holland Clayson Combines

| | | | | |
|-------|-------|----------|-----------------------|--------|
| Model | 1530 | 84.3 kw | (113 h.p.) 3.6m (12') | 27,350 |
| Model | 1545 | 96.9 kw | (130 h.p.) 4.6m (15') | 32,400 |
| Model | S1550 | 119.3 kw | (160 h.p.) 4.6m (15') | 38,000 |

International

| | | | | |
|-------|-----|---------|-----------------------------------|--------|
| Model | 321 | 56.7 kw | (76 h.p.) diesel 3.6m (12') | 17,610 |
| Model | 431 | 62.0 kw | (105 h.p.) diesel 3.8m (12'4") | 18,475 |
| Model | 531 | 78.3 kw | (105 h.p.) diesel 4.3m (14') | 21,844 |

Massey Ferguson

| | | | | |
|------|-----|------|-------|--------|
| M.F. | 520 | 3.7m | (12') | 18,343 |
| M.F. | 525 | 4.3m | (14') | 19,190 |
| M.F. | 750 | 4.3m | (14') | 32,643 |

John Deere

| | | | | |
|--------|------|------|-------|--------|
| Series | 4400 | 4.3m | (14') | 24,794 |
| Series | 6600 | 4.9m | (16') | 28,000 |
| Series | 7700 | 5.5m | (18') | 34,000 |

Balers

Welger

| | | | |
|-----------------|----|--|-------|
| Model AP | 45 | | 3,250 |
| Model AP | 61 | | 3,975 |
| Model AP | 71 | | 4,525 |
| Heeston Rounder | | | 6,950 |

International

| | | | |
|-------|-----|------------------------------------|-------|
| Model | 440 | P.T.O. Capacity 19 tonnes per hour | 3,368 |
|-------|-----|------------------------------------|-------|

Massey Ferguson

| | | | |
|------|-----|--|-------|
| M.F. | 124 | Baler P.T.O. Capacity 19 tonnes per hr | 3,136 |
|------|-----|--|-------|

New Holland

| | | | |
|-------|-----|-------------|----------------------|
| Model | 274 | P.T.O. | 3,380 |
| Model | 276 | P.T.O. | 3,760 |
| Model | 286 | P.T.O. | 5,400 |
| Model | 278 | P.T.O. | 6,600 |
| Model | 850 | Round Baler | Price on Application |

Mowers

Cutterbar

Massey Ferguson

| | | | | |
|------------|------|-------|--------|-------|
| Model M.F. | 32-7 | 1.8m | (6') | 542 |
| Model PZ | 165 | 1.65m | (5'6") | 1,140 |
| Model PZ | 215 | 2.1m | (7') | 1,460 |

Aktiv

| | | | | |
|-----------|--|--|--|-----|
| Model TH | | | | 475 |
| Model THS | | | | 516 |

Busatis

Double Knife

| | | | | |
|-------|--|------|------|-----|
| Mower | | 1.8m | (6') | 820 |
|-------|--|------|------|-----|

| New Holland Haybine Mower - Conditioner | | | | \$ |
|---|-----|------|--------|-------|
| Model | 444 | 2.2m | (7'3") | 3,900 |
| Model | 479 | 2.7m | (9') | 4,760 |

Rotary Mowers

| | | | | |
|--------|-----------|------|--------|-------|
| Fahr | | 1.7m | (5'6") | 1,398 |
| Taarup | | 1.7m | (5'6") | 1,222 |
| Duncan | UFO | | | 750 |
| Vicon | Disc | | | 1,195 |
| IBL | 1500 Disc | | | 1,055 |

Flail Mower

| | | | | |
|-----|-------------|------------|--|-----|
| IBL | Flailmaster | Heavy Duty | | 820 |
| IBL | Elailmaster | Junior | | 610 |
| IBL | Haymaster | Standard | | 710 |

Ploughs

Clough

| | | | | |
|----|---------|--------|---|-------|
| 3F | Mounted | 30.5cm | (12") G.P. Stylemaster with land wheel | 540 |
| 4F | Mounted | 30.5cm | (12") G.P. Stylemaster with land wheel | 692 |
| 5F | | 30.5cm | (12") G.P. Stylemaster with land wheel | 867 |
| 4F | | 35.6cm | (14") Semi Mounted | 1,024 |
| 5F | | 35.6cm | (14") Semi Mounted | 1,238 |
| 6F | | 35.6cm | (14") Cropmaster | 1,434 |

Duncan

| | | | | |
|-------|-----|--------------|----|-------|
| Model | 540 | Semi Trailer | 4F | 1,695 |
| | | | 5F | 1,995 |
| | | | 6F | 2,295 |

Reid & Gray

| | | | |
|----|---------------------------|--|-------|
| 3F | General Purpose Model | | 462 |
| 4F | General Purpose Model | | 583 |
| 4F | Viking Line, Semi mounted | | 1,790 |
| 6F | Viking Line, semi Mounted | | 2,014 |

Reid & Gray (Cont'd)

| | | |
|----|---------------------------|-------|
| 7F | Viking Line, Semi Mounted | 2,337 |
| 8F | Viking Line, Semi Mounted | 2,587 |
| 3F | Intermediate Model | 494 |
| 4F | Intermediate Model | 618 |

Model Fleet Furrow, Semi Mounted

| | | |
|----|------------|-------|
| 4F | Standard | 893 |
| | Heavy Duty | 1,071 |
| 5F | Standard | 1,072 |
| | Heavy Duty | 1,513 |
| 6F | Standard | 1,283 |
| | Heavy Duty | 1,549 |
| 7F | Standard | 1,460 |
| | Heavy Duty | 1,816 |

Discs

Duncan

| | | | | |
|------|-------|---------------------------|-----------------|-----|
| 2.1m | (7') | Standard Century (20") | 50.8cm Plain | 554 |
| | | | Scalloped | 576 |
| 2.4m | (8') | Standard Century (20") | 50.8cm Plain | 574 |
| | | | Scalloped | 601 |
| 2.7m | (9') | Standard Century (20") | 50.8cm Plain | 602 |
| | | | Scalloped | 635 |
| 3.0m | (10') | Standard Century (20") | 50.8cm Plain | 716 |
| | | | Scalloped | 764 |

Model 800 Mounted

| | | | |
|------|------|-----------|-----|
| 2.1m | (7') | Plain | 782 |
| | | Scalloped | 818 |
| 2.4m | (8') | Plain | 817 |
| | | Scalloped | 858 |
| 2.7m | (9') | Plain | 845 |
| | | Scalloped | 892 |

Reid & Gray

| | | | | |
|--|-------|----------------|--------|-------|
| 2.4m | (8') | Tandem trailed | 45.7cm | |
| | | (18") | Plain | 619 |
| 3.0m | (10') | Tandem trailed | 45.7cm | |
| | | (18") | Plain | 753 |
| American Line 32 x 20 x 7¼ Disc Harrows Plain Blades | | | | 1,528 |
| 24 x 20 x 9 Mounted Disc Harrows Plain Blades | | | | 925 |

Grubbers

Duncan Model 630

| | | | | |
|------|---------|---------------|--|-----|
| 2.5m | (10') | Bar; 11 tines | | 459 |
| 2.5m | (10') | Bar; 13 tines | | 485 |
| 3.7m | (12') | Bar; 15 tines | | 516 |
| 4.2m | (13'6") | Bar; 17 tines | | 557 |

Less \$130.00 for no depth wheel

Add \$ 12.00 for each tine ordered with machine

Model 633 Cultivator and Crumbler

| | | | |
|-------|----------|--|-----|
| (10') | 21 tines | | 875 |
|-------|----------|--|-----|

Model 634 Rotacumbler

| | | | |
|----------------|----------|----------------|-----|
| (8') | 23 tines | | 725 |
| (10') | 29 tines | | 775 |
| Optional Extra | — | Leveller Board | 65 |

Clough Cultivators

| | | | |
|----------|-------------|----------------------|-----|
| 11 tines | with wheels | | 449 |
| 15 tines | with wheels | | 507 |
| 19 tines | with wheels | | 637 |
| 21 tines | trailing | Price on Application | |
| 25 tines | trailing | Price on Application | |

Reid & Gray (coiled 1" tine)

| | | |
|----------|--|-----|
| 13 tines | | 417 |
| 15 tines | | 445 |
| 17 tines | | 484 |
| 19 tines | | 542 |

Drills

| | | |
|------------|---------------------|-------|
| Conor Shea | 18 Run Disc Drill | 2,346 |
| | 18 Run Tyne Combine | 2,600 |

Duncan

| | | | |
|-------|-----|--------------------|-------|
| Model | 700 | 16 Run Hoe Drill | 1,868 |
| | | 20 Run Hoe Drill | 2,086 |
| Model | 701 | 16 Run Hoe Drill | 2,029 |
| | | 20 Run Hoe Drill | 2,241 |
| Model | 700 | 18 Run Disc Drill | 2,190 |
| Model | 701 | 18 Run Disc Drill | 2,368 |
| Model | 730 | 16 Run Multiseeder | 3,925 |

Hay Conditioners & Hay Rakes

Macewans

| | | |
|------------------|--------|------------|
| Kuhn Gyro Tedder | GRS 20 | 862 |
| Kuhn Gyro Rake | GA280 | 702 |
| Bamfords | RG2 | 6 reel 918 |
| Bamfords | TG1 | 4 reel 408 |

Vicon

| | |
|--------------------|-------|
| Model Acrobat | 452 |
| Model Sprintmaster | 985 |
| Model Speeder | 1,200 |
| Model Sprinter | 840 |

Fahr

| | | | |
|-----------------|------|--------------|-------|
| Model Centipede | KH40 | 4 reel basic | 1,265 |
|-----------------|------|--------------|-------|

Massey Ferguson

| | | |
|------|--------------|--------------|
| PZ | Bob-tedder | 1,060 |
| M.F. | 54 Windrower | P.T.O. 4,699 |

Fertilizer Spreaders

Massey Ferguson

| | | |
|-------------------|----------------------|-------|
| Puffin Topdresser | 30 cwt trailed model | 1,190 |
|-------------------|----------------------|-------|

Vicon

| | | |
|--------------------|---------|-------|
| 0.3 tonne (6 cwt) | Hopper | 345 |
| 0.5 tonne (10 cwt) | Hopper | 367 |
| 1.5 tonne (30 cwt) | Trailed | 1,120 |

Rotary Cultivators

Howard Rotavator

| | |
|--------------|-------|
| 127 cm (50") | 1,434 |
| 152 cm (60") | 1,467 |
| 178cm (70") | 1,504 |
| 203 cm (80") | 1,598 |

Massey Ferguson Kobashi Rotary Hoes

| | | |
|----------------|----------------|-------|
| Model RBS 1650 | 160 cm (63.2") | 1,437 |
| Model RBS 2000 | 200 cm (78.8") | 1,560 |

Miscellaneous Machinery

| | |
|--|-------|
| Chain Harrows (3.7m, 12') | 162 |
| Dutch Harrows (3.7m, 12') | 367 |
| 3 pt Linkage Grader Blade | 282 |
| 3 pt Linkage Grader Blade (Heavy Duty) | 382 |
| Electric Welders 180 amp apex | 285 |
| 220 amp | 324 |
| Used Utility (10,000 miles) | 3,200 |
| Used 5 Tonne Truck | 3,500 |

FARM VEHICLES

Landrover

| | | | |
|-------------------------|--------------|------------------|--------|
| Series III | 224cm (88") | W.B. Truck Cab | 5,530 |
| | | Hard top | 5,700 |
| | 277cm (109") | W.B. Chassis Cab | 5,737 |
| Range Rover V8 : 3.5 l. | | | 13,000 |

Toyota

| | | | | |
|--------------|-------|-------|---------------|-------|
| Land Cruiser | 229cm | Short | W.B. Hard Top | |
| | | | Basic | 6,009 |
| | 229cm | Long | W.B. Cab and | |
| | | | Chassis | 5,698 |

Datsun

| | | |
|--------------|---------------------------|-------|
| Model 1500 | Cab and Chassis with deck | 4,350 |
| Model Caball | Cab and Chassis | 4,968 |

FARM BIKES

Benelli

| | | |
|-----------|-------|-----|
| Hurricane | 65cc | 395 |
| Dynamo | 65cc | 425 |
| Panther | 125cc | 825 |

Indian

| | | |
|--------|-------|-----|
| ME 76 | 75cc | 599 |
| ME 100 | 100cc | 660 |
| ME 125 | 125cc | 869 |

Honda

| | | | | | |
|-------|---------|-------|-------|-----------|-----|
| Trail | CT90 | 90cc | 5.2kw | (7 h.p.) | 640 |
| | XL100) | | | | 664 |
| | SL125) | Basic | | | 758 |

Suzuki

| | | | | | |
|----|------|--|--|--|-------|
| RV | 75 | | | | 589 |
| RV | 90L | | | | 649 |
| RV | 125 | | | | 799 |
| TS | 100 | | | | 728 |
| TC | 125 | | | | 819 |
| TS | 125 | | | | 768 |
| TS | 185 | | | | 755 |
| TS | 250K | | | | 1,129 |

Yamaha

| | | | | | |
|--------|-------|--|--|--|-----|
| Ag.100 | 100cc | | | | 699 |
| Ag.175 | 175cc | | | | 986 |

Kawasaki

| | | | | | |
|-----------|------------|--|--|--|-----|
| Mini byke | 75cc Basic | | | | 489 |
| | 100cc | | | | 749 |

Macewans "American Line" Silos — Prices 1974/75 Season

| BIN: Dia. | HEIGHT: Eave. | TONNES (Barley) | TONNES (Maize) | TONNES (Wheat) | OUTDOOR \$ | ERECTION \$ |
|--------------|------------------|--------------------|-------------------|-------------------|---------------|----------------|
| 4.6m (15') | 3.7m (12') | 46 | 54 | 58 | 916.00 | 185.00 |
| 4.6m (15') | 4.3m (14') | 49 | 58 | 62 | 977.00 | 205.00 |
| 4.6m (15') | 4.9m (16') | 60 | 70 | 75 | 1,091.00 | 250.00 |
| 5.5m (18') | 4.3m (14') | 78 | 91 | 98 | 1,152.00 | 305.00 |
| 5.5m (18') | 4.9m (16') | 88 | 103 | 110 | 1,293.00 | 354.00 |
| 5.5m (18') | 5.5m (18') | 98 | 115 | 123 | 1,383.00 | 379.00 |
| 5.5m (18') | 6.1m (20') | 109 | 127 | 136 | 1,608.00 | 410.00 |
| 6.4m (21') | 4.3m (14') | 108 | 126 | 135 | 1,531.00 | Apply |
| 6.4m (21') | 4.9m (16') | 122 | 143 | 152 | 1,707.00 | Apply |
| 6.4m (21') | 5.5m (18') | 136 | 159 | 170 | 1,795.00 | Apply |
| 7.1m (24') | 4.3m (14') | 144 | 169 | 180 | 1,939.00 | Apply |
| 7.1m (24') | 4.9m (16') | 162 | 189 | 202 | 1,990.00 | Apply |

Erection Costs

Based upon purchaser providing no meals and no men. Prices include two men. Erection costs shown apply only to the South Island. For cone base add \$13.00 for 15', \$22 for 18' and \$30 for 21'.

Grain Driers

'Holyoake' Grain Drying Fans

| Model | Fan Driven by Electric Motor | Countershaft Arrangement |
|---------|---------------------------------|-----------------------------|
| BCF 150 | \$454.00 | N.A. |
| BCF 200 | \$593.00 | \$761.00 |
| BCF 245 | \$785.00 | N.A. |
| BCF 300 | \$1,006.00 | N.A. |

Vale Centrifoil Fans (Grain Drying)

| Model | H.P. Consumed | Wheat Drying Capacity (tonnes) | Price in \$ with guard |
|--------|------------------|--------------------------------------|---------------------------|
| 15 SLP | 4.3 | 35 | \$549.00 |
| 18 SLP | 5.4 | 50 | \$639.00 |
| 21 SLP | 7.9 | 70 | \$661.00 |
| 24 SLP | 10.0 | 90 | \$757.00 |
| 27 SLP | 12.4 | 115 | \$937.00 |
| 30 SLP | 15.2 | 140 | \$1,019.00 |

Capacities refer to bins or silos 10 ft (3m) deep.

Prices f.o.r. to nearest railhead.

24. FENCING

Table of approximate weights and lengths.

| No. or gauge of wire | Length of 25kg | \$ per 25kg |
|----------------------|----------------|-------------|
| 7 | 200m | — |
| 8 | 254m | 9.87 |
| 9 | 322m | 9.91 |
| 10 | 408m | 9.92 |
| 12 | 649m | 10.04 |
| 12½ high tensile | 728m | 10.88 |
| 14 | 1014m | 10.19 |

12½ gauge barb 7.6cm apart 410m (448yds 20½ chains) \$24.48 per 50 kg

12½ gauge barb 15.3cm apart 487m (533yds 24¾ chains) \$24.48 per 50 kg

Wire – Lacing 12, 14 & 16 gauge**\$ per coil**

| | |
|-----------------------|------|
| 3.2 Kg Coils (7 lb) | 2.40 |
| 6.4 Kg Coils (14 lb) | 4.10 |
| 12.7 Kg Coils (28 lb) | 7.00 |

Standards – Flat Wrought Iron

| | |
|---------------------------|-------------|
| 1.4m (4'6" x 1¼" x 5/16") | \$1.25 each |
| 1.5m (5' x 1¼" x 5/16") | \$1.40 each |
| 1.7m (5'6" x 1¼" x 5/16") | \$1.54 each |

Waratahs

| | |
|-------------|-------------|
| 1.4 (4'6") | 88c each |
| 1.5m (5") | 92c each |
| 1.7m (5'6") | 96c each |
| 1.8m (6') | \$1.02 each |

H Irons

| | |
|------------------------|----------|
| 1.5m (5' x 1½" x 5/8") | 89c each |
|------------------------|----------|

Mild Steel Tees

| | |
|---------------------------|-------------|
| 1.5m (5' x 1½" x 3/16") | \$1.35 each |
| 1.7m (5'6" x 1¾" x ¼") | \$2.00 each |
| 2.0m (6'6" x 2½" x 5/16") | \$5.25 each |

Posts – Concrete Intermediates

| | |
|-----------------------------------|-------------|
| 1.8m (6') | \$2.00 each |
| 1.7m (5'6") | \$2.00 each |
| 2.7m (9') paling posts plus bolts | \$3.00 each |

Posts – Concrete Strainers

| | |
|-----------------------------------|-------------|
| 2.1m x 15cm x 15cm (7' x 6" x 6") | \$6.00 each |
| 2.1m x 18cm x 18cm (7' x 7" x 7") | \$7.50 each |
| 2.4m x 20cm x 20cm (8' x 8" x 8") | \$8.50 each |

Posts – Tanalised Intermediates

| | | |
|---------------------------|-------------|-------------|
| (a) Natural Round | | |
| 1.8m x 10cm (6' x 4') | Minimum top | \$1.40 each |
| (b) ½ round | | |
| 1.8m x 17cm (6' x 6 – 7") | face | \$1.35 each |
| 1.8m x 14cm (6' x 5 – 6") | face | \$1.30 each |

Posts – Tanalised Strainers

| | |
|-----------------------|-------------|
| 2.1m x 15cm (7' x 6") | \$2.92 each |
| 2.1m x 18cm (7' x 7") | \$3.25 each |
| 2.4m x 15cm (8' x 6") | \$3.50 each |
| 2.4m x 18cm (8' x 7") | \$4.05 each |
| 2.4m x 20cm (8' x 8") | \$4.85 each |

Pointing

Strainers 19 cents extra

Posts 6 cents extra

Stays

(a) Concrete 2.7m (8') \$3.00 each

(b) Tanalized 2.7m x 8cm (9' x 3'') \$1.80 each

Stay Blocks(a) Concrete Small 60 cents each
large \$1.00 each

(b) Tanalized 60cm 60 cents each

Staples

| (a) | Plain | Barb. | |
|----------|---------|---------|-----------------------------|
| 8 gauge | \$13.48 | \$15.63 | (Cost per ½ cwt or 25.4 Kg) |
| 9 gauge | \$13.61 | \$15.67 | |
| 10 gauge | \$13.69 | \$15.72 | |
| 11 gauge | \$13.83 | - | |
| 12 gauge | \$14.00 | - | |
| 14 gauge | \$14.46 | - | |

(b)
Concrete Post Staples 44 cents per Kg**Battens – Tanalized**

| | | |
|------------------|--------------------|-----------------|
| 5cm x 4cm x 1m | (2" x 1½" x 3'4") | \$22.00 per 100 |
| 5cm x 4cm x 1m | (2" x 1½" x 3'6") | \$25.00 per 100 |
| 5cm x 4cm x 1.2m | (2" x 1½" x 3'10") | \$30.00 per 100 |

Gates – Cyclone & Hurricane**Economy Gate****Cyclone Special**

3.7m (12') \$20.81 each \$28.65 each

4.3m (14') \$22.74 each \$33.87 each

Boundary Fences – Cyclone

| (a) | Tightlock Boundary | Nominal | Stays | Per 20 metres |
|----------------------------|--------------------|---------|------------|---------------|
| Medium Tensile Superweight | | | | |
| Tight 8 | 76cm (30") | 8 line | 31cm (12") | \$ 8.17 |
| Tight Hog | 76cm (30") | 8 line | 16cm (6") | \$ 9.21 |
| (b) Twinlock Boundary | | | | |
| Medium Tensile Superweight | | | | |
| | 93cm (36") | 7 line | 31cm (12") | \$ 7.41 |
| | 71cm (28") | 6 line | 31cm (12") | \$ 6.41 |

| (c) Tightlock Boundary (High Tensile) | | \$ Per 20 metres | |
|--|----------------|------------------|---------|
| 93cm | (36") x 7 line | 31cm (12") | \$ 6.45 |
| 93cm | (36") x 7 line | 16cm (6") | \$ 8.69 |
| 81cm | (32") x 8 line | 31cm (12") | \$ 6.92 |

Contract Fencing rate

(a) On Canterbury Plains

- (1) 2 posts to the chain, 5 standards between posts.
5 plain and 2 barbed wires: \$6.00 – 8.00 per chain or per 20 metres
Varies according to number of strainers and gateways.
- (2) 1 post, 5 waratahs, Hurricane boundary netting, 1 barb,
\$6.50 per chain or per 20 metres

(b) On Hills and Downs

- (1) Rough going:
 - (i) 2 posts, 4 to 5 standards, 5 plain, 2 barbs: \$10.00 per chain
 - (ii) 2 T-irons in place of posts: \$7.50 per chain or per 20 metres
- (2) Good going:
 - (i) 2 posts, 4 to 5 standards, 5 plain, 2 barbs: \$8.00 per chain or 20m
 - (ii) 3 posts, Hurricane (boundary) netting, 1 barb wire, 6 plain,
\$7.00 per chain or per 20 metres

Contract Post Driving

35 cents per post, minimum \$6.00 per hour.

Contract Post hole digging \$0.30 per hole, minimum \$5.00 – \$7.00
per hour according to conditions.

25. WATER SUPPLY

Piping

| | | | | |
|-------|-------|------------|-----------------|-------------------|
| 1.3cm | (½") | Alkalthene | | \$23.02 per 100m |
| 1.9cm | (¾") | Alkalthene | | \$45.87 per 100m |
| 2.5cm | (1") | Alkalthene | | \$55.71 per 100m |
| 3.2cm | (1¼") | Alkalthene | Class C | \$103.30 per 100m |
| 3.8cm | (1½") | Alkalthene | Class C | \$141.04 per 100m |
| 5.1cm | (2") | Alkalthene | | |
| | | Pressure | at .32cm (1/8") | \$264.57 per 100m |

Concrete Water Troughs

| | | |
|--------|--------------------|---------|
| 909 l. | (200 gallon) round | \$34.50 |
| 454 l. | (100 gallon) round | \$24.50 |
| 318 l. | (70 gallon) long | \$20.00 |
| 273 l. | (60 gallon) long | \$19.50 |
| 182 l. | (40 gallon) round | \$17.50 |
| 182 l. | (40 gallon) long | \$17.50 |

Concrete Tanks

| | Width | Height | Weight | Price |
|-----------------------|-------------|-------------|--------------------|-------|
| 9092 l. (2000 gallon) | 2.6m (8'4") | 2.1m (6'8") | 2.1 tonne (42cwt) | \$295 |
| 4540 l. (1000 gallon) | 1.8m (6') | 1.8m (6') | 1.0 tonne (21cwt) | \$165 |
| 3637 l. (800 gallon) | 1.8m (6') | 1.5m (4'8") | 0.8 tonne (16cwt) | \$155 |
| 2728 l. (600 gallon) | 1.7m (5'6") | 1.3m (4'3") | 0.6 tonne (12½cwt) | \$120 |
| 1818 l. (400 gallon) | 1.5m (4'8") | 1.3m (4'3") | 0.5 tonne (9cwt) | \$ 95 |

Concrete Pipes (2nd sewer pipes)

| | | | |
|-------|-------|-------------------|------------------|
| 23 cm | (9") | \$ 4.49 per metre | (\$1.37 per ft.) |
| 30 cm | (12") | \$ 5.74 per metre | (\$1.75 per ft.) |
| 53 cm | (21") | \$11.61 per metre | (\$3.54 per ft.) |
| 76 cm | (30") | \$21.52 per metre | (\$6.56 per ft.) |

Culvert Pipe (flush joint)

| | | | |
|-------|-------|-------------------|------------------|
| 76 cm | (30") | \$17.65 per metre | (\$5.38 per ft.) |
|-------|-------|-------------------|------------------|

26 DRAINAGE (February, 1973)

Drainage Costs

| | | | |
|-------------|-----------------|---------|------------|
| Field Tiles | 10.1cm (4 inch) | \$14.37 | per 30.48m |
| | 15.2cm (6 inch) | \$19.89 | per 30.48m |

To dig 20.1m (1 chain) of trench – average depth 51cm (20") – \$6.50 per 20.1m (chain)

10.2cm (4" tiles) \$ 9.48 per 20.1m (chain)

15.2cm (6" tiles) \$13.13 per 20.1m (chain)

Plus 2 men at 20.1m (1 chain) per hour at \$3.00 per hour = \$6.00

Cost of laying 10.1cm (4" tiles) = \$17.00 per 20.1m (chain)

15.2cm (6" tiles) = \$20.22 per 20.1m (chain)

In Sandy Soil, shingle is required:

at 1.3cm x 1.9cm (½")–(¾") shingle round pipes:

\$2.20 per 0.9m (yard) of shingle, on trucks. 1.8m (2 yards) of shingle per 20.1m (chain) of pipe

Additional cost is \$4.40 per 20.1m (chain)

Cartage costs must be included in this:- 1c per 0.31m (foot) for cartage of 32 Kilometres (20 miles).

To lay 15cm (6") tile in sandy soil, including back fill and cartage costs will be \$25.30 per 20.1m (chain) approximately.

Open Drains

Draglines 25 cents per cubic metre (add 15 cents per cubic metre if machine is on soft ground and working on mats). Work on approximately \$7.00 per hour for a small dragline.

Hydraulic

backactor 31cm (12") bucket does 20.1m (1 chain) per hour of trench suitable for tiles at \$7.00 per 20.1m (chain). Mustang (larger) \$12.00.

Well

drilling Cost of pipe plus drilling plus screen at bottom of well:

15.2cm (6") pipes \$11.00 per 31cm 20cm (8") pipes \$13.00 per 31cm.

Mole

draining Rate of work approximately 0.404 ha (1 acre) per hour.

Contract rates for wheel tractors \$8.00 per hour, and for crawler tractors \$13.00 per hour.

27. WAGES OF MANAGEMENT

For Lincoln College purposes Wages of Management (W.O.M.) should be based on a married man's salary plus 1% of total farm capital (T.F.C.)

Use the following estimates for a married man's salary.

| | |
|--------------------------|-------------------|
| Town Milk Dairy | \$4,000 – \$4,500 |
| Factory Supply Dairy | \$3,600 – \$4,000 |
| Sheep and Mixed Cropping | \$3,400 – \$3,800 |

(Generally within the range \$3,500 to \$4,500 depending on experience.)

28. HAYBARN AND GRAIN SILO SUBSIDIES

(June 1st 1974 to June 30th 1976)

Rate of Subsidy:

- (a) Haybarns: 40 cents per cubic metre of storage capacity. Maximum payable in any one claim period \$320.
- (b) Grain Silos: \$3.08 per cubic metre of storage capacity. Maximum payable in any one claim period \$184.

Claim Periods Are:

| | | |
|-------------|---|--------------|
| June 1 1974 | – | June 30 1975 |
| July 1 1975 | – | June 30 1976 |

Fertiliser Application Subsidy

Applicable to fertiliser spread on or after January 24, 1975 and before July 1st, 1975.

\$7.50 per tonne for fertiliser spread by contractors

\$5.00 per tonne for fertiliser spread by the farmer

The subsidies are intended as a short term assistance.

GUIDE TO FENCING COSTS (January 1975)

| Plain Wire | No of wires in fence | | | (Cost in cents/metre of fence) | |
|----------------|----------------------|------|------|--------------------------------|------|
| Gauge (mm) | 1 | 7 | 8 | 9 | 10 |
| No. 8 (4) | 4.0 | 28.0 | 32.0 | — | — |
| No. 10 (3.15) | 2.4 | 16.8 | 19.2 | 21.6 | — |
| No. 12½ (2.37) | 1.5 | 10.5 | 12.0 | 13.5 | 15.0 |

| Barb Wire (12½ gauge) | No of wires in fence | | | (Cost in cents/metre of fence) | |
|-----------------------|----------------------|------|--|--------------------------------|--|
| | 1 | 2 | | | |
| Barbs 75mm apart | 6.1 | 12.2 | | | |
| Barbs 150 mm apart | 5.1 | 10.2 | | | |

Netting

| Types | Cost in cents/metre of fence |
|-------|------------------------------|
|-------|------------------------------|

| | |
|----------------------------|----|
| Cyclone Medium Tensile | |
| Superweight (tight 9) | 46 |
| Twinlock S.R. | 37 |
| High tensile boundary A.A. | 32 |

Posts

Cost in cents/metre of fence
where number of posts/20 metres is:

| Tanalised Pine | (Price Each) | 3 | 4 | 5 | 6 |
|-----------------------|--------------|------|------|------|------|
| No. 1 (127mm) Round | \$1.50 | 22.5 | 30.0 | 37.5 | 45.0 |
| No. 2 (102mm) Round | \$1.40 | 21.0 | 28.0 | 35.0 | 42.0 |
| No. 3 (76mm) Round | \$1.30 | 19.5 | 26.0 | 32.5 | 39.0 |
| No. 1 (165mm) ½ Round | \$1.35 | 20.3 | 27.0 | 33.8 | 40.5 |
| No. 2 (140mm) ½ Round | \$1.30 | 19.5 | 26.0 | 32.5 | 39.0 |
| Concrete Junior | \$1.80 | 27 | 36 | 45 | 54 |
| Concrete Intermediate | \$1.90 | 29 | 38 | 48 | 57 |

Waratahs (1.7m) @ 96c each

Cost in cents/metre of fence
where number per 20 metres is:

| 3 | 4 | 5 | 6 |
|------|------|------|------|
| 14.4 | 19.2 | 24.0 | 28.8 |

Battens

Cost in cents/metre of fence
where the number per 20 metres is:

| | | | |
|---------------------------------|------|------|------|
| (5cm x 4cm x 1m) @ \$22 per 100 | 10 | 20 | 30 |
| | 11.0 | 22.0 | 33.0 |

Strainers

Tanalised pine

Price of Strainer, Stay, and Block \$5.32. Cost in cents per metre where with one strainer per strain, the strain length is:

| | 120 | 160 | 200 | 240 |
|---------------|--------|--------|--------|--------|
| | metres | metres | metres | metres |
| (2.1m x 15cm) | 4.4 | 3.3 | 2.7 | 2.2 |
| (2.4m x 15cm) | 4.9 | 3.7 | 3.0 | 2.5 |

Concrete

Price of Strainer, Stay, and Block \$9.60. Cost in cents/metre of fence with strain length:

| | 120 | 160 | 200 | 240 |
|---------------|--------|--------|--------|--------|
| | metres | metres | metres | metres |
| (2.1m x 15cm) | 8.0 | 6.0 | 4.8 | 4.0 |
| (2.1m x 18cm) | 9.6 | 7.2 | 5.6 | * 4.8 |

Angles @ \$3.90 each (tanalised with stay)

@ \$4.80 each (concrete with stay)

Price in cents/metre of fence where the number of angles per 200 metres is: (tanalised)

| 1 | 2 | 3 | 4 |
|-----|-----|-----|-----|
| 2.0 | 4.0 | 6.0 | 8.0 |

Gates (including hinges, gudgeons and catches)

Price in cents/metre of fence where the number of gates per 600 metres is:

Types

Cyclone Galvanised

Standard (3.05m)

Standard (3.66m)

Stressmaster (3.66m)

Stressmaster (4.27m)

| 3 | 2 | 1 |
|----|----|---|
| 14 | 9 | 5 |
| 15 | 10 | 5 |
| 17 | 11 | 6 |
| 20 | 13 | 7 |

Staples, tie downs, foots etc. depending on contour allow between 2.0 and 5.0 cents/metre of fence.

Pricing types of fences then: (excluding labour)

- (a) 3 wooden posts/20 metres
3 battens between posts
9 12½ gauge wires

Price per metre:

| | |
|---------------|----------------------|
| Wire | 13.5 cents |
| Posts | 21.0 cents |
| Battens | 11.0 cents |
| Strainers | 2.7 cents |
| Angles | 4.0 cents |
| Gate | 6.0 cents |
| Staples, etc. | 3.0 cents |
| Total Cost | 61.2 cents per metre |

With labour at 37.5 cents per metre the price
erected is 98.7 cents per metre

- (b) 4 concrete posts/20 metres
6 8 gauge wires plus 2 barbs
5 battens between posts

Price per metre:

| | |
|----------------|--------------------------------|
| Wire No. 8 | 24.0 cents |
| Barb | 10.2 cents |
| Posts | 36.0 cents |
| Battens | 22.0 cents |
| strainers | 5.6 cents |
| Angles | 4.8 cents |
| Gate | 6.8 cents |
| Staples, etc. | 4.0 cents |
| Total Cost | 113.4 cents per metre |
| With labour at | 40.0 cents per metre the price |
| erected is | 153.4 cents per metre (\$1.53) |

(c) Recommended by N.Z.A.E.I.

4 wooden posts/20 metres

10 12½ gauge H.T. wires

2 battens between posts

Double horizontal stay strainer assembly:

2 stays, 3 posts, 30 metres No. 8 wire, batten and staples

Price per metre

| | |
|-------------------|--------------------------------|
| Wire | 15.0 cents |
| Posts | 28.0 cents |
| Battens | 9.0 cents |
| Strainer assembly | 4.7 cents |
| Angles | 4.0 cents |
| Gate | 6.0 cents |
| Staples, etc. | 2.8 cents |
| Total Materials | 69.5 cents per metre |
| With labour at | 37.5 cents per metre the price |
| erected is | 107.0 cents per metre (\$1.07) |

As above any particular fence design can be costed using the tables on a price per metre basis.

SECTION 3

INCOME TAXATION

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NOTES ON INCOME TAXATION

J.V. Bennett

1. INTRODUCTION

Users should appreciate that this section is not exhaustive, comprises notes and is a general outline only of the principles and methods of some aspects of the New Zealand tax system.

For reasons of brevity, certain aspects are simplified and may be misleading. Reference to readings listed at the end of this section may therefore be necessary.

2. GENERAL INTERPRETATION

Tax law derives ultimately from Statute, but guidance in interpretation may be gained through reference to decided case law and decisions of the New Zealand Taxation Board of Review. The principal statute is the Land and Income Tax Act, 1954, and subsequent amendments. In line with the budget, Parliament may pass annual taxing legislation incorporating any new rates of tax, together with any changes in tax law as it sees fit.

3. INCOME

Arises from the pursuit of gain from either capital or labour. Income is not defined by Statute, but court decisions over the past half century have built up a body of case law which provides precedents for the settlement of most issues involving the nature of income.

3.1 Propositions on the Nature of Income

1. It must be a gain and must match expenses and revenues: i.e. we recognise gain as a net concept.
2. It must be severed from capital and be in cash or capable of being turned into cash.
3. It must be a receipt from property or capital, or a reward for labour or effort.
4. It must not be an accretion to, or change in the form of assets.
5. It must not be a refund of private expenditure: i.e. it must confer monetary gain.

6. The gain must be expressed in terms of New Zealand currency.

3.2 Factors in Determining Taxable Income

1. Exempt Income – income wholly exempt from taxation.
2. Assessable Income – income of any other kind not exempted from income tax otherwise than by way of a special exemption.
3. Non-Assessable Income – income not directly taxable but which affects the rate of tax paid – applies to companies.
4. Special Exemptions – income specifically excluded from liability for income tax – applies to individuals.
5. Taxable Income – the residue from assessable income after deducting the sum of all special exemptions to which the tax payer is entitled.

All Income

– **Exempt Income**

Assessable Income

– **Special Exemptions**

TAXABLE INCOME

4. PERSONAL ASSESSMENT

4.1 Exempt Income

Includes inter alia:

1. War pensions.
2. Up to \$100 of interest from all sources, plus up to \$200 of interest received specifically from the Post Office Savings Bank, Trustee Savings Banks, and Private Savings Banks – a total possible exemption of up to \$300.
3. Up to \$500 in accumulated interest from National Development Bonds and/or New Zealand Savings Certificates. The interest is deemed to be received on maturity or earlier surrender.
4. Alimony or maintenance payments received by a former

wife.

5. T.A.B. prize money if the taxpayer is not deemed to be a professional gambler.
6. Any scholarship or bursary monies received in respect of a taxpayer's attendance at an educational institution.
7. Any payment received in respect of personal incapacity or sickness under a policy of insurance not being a payment calculated according to loss of earnings or profits.
8. Any compensation received under the Workers Compensation Act 1956.
9. Prizes in respect of Post Office Bonus Bonds.

4.2 Assessable Income

Includes inter alia:

1. Profits or gains derived from any business.
2. Salaries, wages or allowances in respect of employment or service.
3. All payments of earnings related compensation made by the Accident Compensation Commission.
4. Profits or gains derived from the sale or disposition of property if it is the business of the taxpayer to deal in such properties, or if the property was acquired for the purpose or intention of selling or otherwise disposing of it.
5. Rents, fines premiums and other revenues derived by the owner of land in respect of any lease, easement or licence affecting the land.
6. All royalty and know-how payments.
7. Interest, dividends, annuities and pensions, retiring allowances, etc.

4.3 Special Exemptions

1. Up to \$200 for donations to charities and/or fees paid to private schools and/or activity fees paid to secondary

schools. Receipts are required.

2. A standard deduction of \$50 or 2 per cent of assessable income, whichever is less, is available to all individual taxpayers. This is not strictly a special exemption, but a deemed element of expenditure which should be deducted from Assessable Income separately rather than being included with Special Exemptions.
3. Superannuation and life Assurance etc. Payments
 - A. Definitions (to apply from 1/4/75)
 - (a) Qualifying Commitments – life, personal accident or sickness insurance premiums plus superannuation contributions.
 - (b) Substantial Shareholder – a shareholding of 50% or greater is regarded as substantial and shares held by close relatives and family trusts will be taken into account in determining the level of shareholding by any individual.
 - B. For the Year Ended March 31, 1975.
 - (a) Employees (members of employer – subsidised Superannuation scheme) – up to \$700 of qualifying commitments.
 - (b) Employees (not members of employer – subsidised superannuation scheme) – up to \$950 of qualifying commitments.
 - (c) Self-Employed – as for (b)
 - C. For the Year Ended March 31, 1976.
 - (a) Employees (members of employer-subsidised superannuation scheme at 30.5.74) – the greater of either
 - (i) up to \$800 of qualifying commitments, or
 - (ii) 1 per cent of taxable remuneration where the minimum compulsory contributions to a superannuation scheme will alone exceed \$800, in which case these only are deductible.
 - (b) Employees (not members of employer – subsid-

ised superannuation scheme at 30.5.74) – the greater of either

- (i) up to \$1000 of qualifying commitments, or
- (ii) the total of minimum compulsory contributions to a superannuation scheme
(i.e. for 1975/76 - 1% of taxable remuneration,) plus qualifying commitments to schemes belonged to at 30.5.74 and which were allowed as a special exemption of the 74/75 income year.

Example: A taxpayer, not a member of an employer subsidised superannuation scheme before 1.4.75, who was paying \$950 in life assurance premiums at 30.5.74, and who earned \$15,000 for the year ended 31.3.76 would be allowed a total deduction of \$1100 i.e.

| | |
|---|---------------|
| minimum compulsory contribution – 1% x 15,000 | = \$150 |
| qualifying commitments existing at 30.5.74 | = \$950 |
| | \$1100 |

- (c) Self-Employed – up to \$1000 of qualifying commitments as a Special Exemption, PLUS the lesser of either
 - (i) up to \$200 of contributions to an approved superannuation scheme, or
 - (ii) the amount of business income– as a Deduction

Note:

- (i) if the amount of contributions to superannuation exceeds the deduction limit of \$200, the balance may be added to the qualifying commitments if these total less than \$1000, and taken as a special exemption
- (ii) if there still remain contributions undeducted, the balance may be carried forward and taken as a deduction (not a special exemption) in the 1976/77 income year when the deduction limit will be increased

to \$400

- (iii) self employed persons, also employees, are eligible only for the special exemptions etc. applying to employees (see above).

Example: A sole-trader farmer, paying \$950 in qualifying commitments joins the New Zealand Superannuation Scheme 1.4.75 and contributes \$300 in 1975/76 and again in 1976/77.

His deductions would be

| | |
|---|-----------------------|
| 1975/76 qualifying commitments as spec. exempt. | 950 |
| maximum super. contrib. as deduction | 200 |
| part of balance to spec. exempt. (to bring up to \$1,000) | 50 |
| TOTAL | <u>\$1,200</u> |

carry forward \$50

| | |
|--|-----------------------|
| 1976/77 qualifying payment as spec. exempt | 950 |
| super. contrib. as deduction | 300) |
| plus carried forward from 1975/76 | 50)* |
| TOTAL | <u>\$1,300</u> |

* The maximum deduction for 1976/77 will be \$400

(d) Employees — also Substantial Shareholders —

- (i) up to \$1000 of qualifying commitments as a special exemption PLUS
- (ii) up to \$200 of contributions to an approved superannuation scheme as a deduction. Any balance of such contributions still remaining may be included in special exemptions if these total less than \$1,000.

See also notes on the New Zealand Superannuation Scheme.

4.4 Tax Rebates

These are deductible from the tax assessed on taxable income where they apply.

1. Personal — \$125
2. Wife — \$125 reduced by \$0.4 for each dollar her personal earnings exceed \$375.
3. Housekeeper — \$125 or \$0.4 for each dollar of “qualifying payments,” whichever is less.
4. Dependent Relatives — \$60 (does not include children for whom a family benefit is being received.)
5. There are special rebate provisions relating to dividends and backpay. In the case of dividends a rebate is available as follows:
 - (a) Where taxable income (including dividends) is \$4,000 or less the rebate is —
 - (i) 10% of the taxable dividends, or
 - (ii) the tax assessed — whichever is smaller
 - (b) Where the taxable income (including dividends) falls between \$4,000 - \$8,000 the rebate is —
 - (i) 10% of the taxable dividends, or
 - (ii) \$400, reducing 10c for every complete dollar in excess of \$4,000 — whichever is the smaller.
 - (c) Where the taxable income is in excess of \$8,000, no rebate applies.

Example: Taxpayer is married and supports his aged mother. During the year his wife earned \$540 and he received income from —

| | |
|--|---------|
| Salary | \$5,400 |
| Dividends from A Ltd | 12 |
| Interest from Canterbury Savings Bank | 225 |
| Interest from Permanent Building Society | 120 |
| Bonus Bonds Prize | 40 |

He paid –

| | |
|----------------------------------|--------|
| Life assurance premiums | \$ 650 |
| Superannuation contributions | 54 |
| Donation to Red Cross | 5 |
| Activity fee to secondary school | 15 |

What is the income tax payable?

Assessable Income

| | | |
|---|-----------|-------|
| Salary | \$5,400 | |
| Dividends | 12 | |
| Interest (nett of exempt interest) ⁽¹⁾ | <u>45</u> | |
| | | 5,457 |

Less Special Exemptions

| | | | |
|------------------------------|---|--------------------------|--------------|
| Life assurance premiums |) | | |
| Superannuation contributions |) | 700 ⁽²⁾ | |
| Donations |) | | |
| Activity fee |) | <u>20 ⁽³⁾</u> | |
| | | | 720 |
| | | | <u>4,737</u> |

Less Standard deduction

| | |
|----------------|----------------|
| TAXABLE INCOME | <u>50</u> |
| | <u>\$4,687</u> |

| | |
|-------------------------------|-------------------|
| Income tax payable on \$4,687 | <u>\$1,159.82</u> |
|-------------------------------|-------------------|

less Tax Rebates

| | | |
|--------------------|----------------------------|--------|
| Personal | \$125.00 | |
| Wife | 59.00 ⁽⁴⁾ | |
| Dependent Relative | 60.00 | |
| Dividend | <u>1.20 ⁽⁵⁾</u> | |
| | | 245.20 |

| | |
|--------------------|------------------|
| INCOME TAX PAYABLE | <u>\$ 914.62</u> |
|--------------------|------------------|

Notes:

1. Bonus Bonds prizes are wholly exempt and some interest is exempt –

| | |
|--|-------------|
| Canterbury Savings Bank interest \$225 | |
| less exempt \$200 | \$ 25 |
| Building Society interest \$120 | |
| less exempt \$100 | <u>20</u> |
| | <u>\$45</u> |

(see 4.1 (2))

2. The total exemption available is \$700 (see 4.3 (3A))
3. These two items are grouped together with a total exemption available of \$200 (see 4.3 (1))
4. $\$125 - .4 (540 - 375) = \$59.$
5. Rebate is smaller of

| | |
|--------------------------------|-----------|
| (a) 10% of taxable dividends | \$ 1.20 |
| (b) $\$400 - .1 (4687 - 4000)$ | \$ 331.30 |

5. BUSINESS INCOME

Keeping in mind the propositions regarding the nature of income, the taxable income of a business will be the residue of total revenue from the business operations, less expenses incurred in the gaining of that revenue. In deriving these two components from which we ascertain our taxable income, reference is made to the law as it exists and calculations are made in line with accepted accounting principles, unless a provision of law overrides those principles.

In order to assist (and at times damp down) various sectors of the economy government will from time to time offer various incentives or disincentives and these will affect for example, the distinction between what is to be regarded as capital expenditure and that which should be expense for income tax purposes.

The agricultural sector is particularly susceptible to this type of manipulation and it should be borne in mind that the various deductions and concessions which apply to agriculture this year may change markedly next year.

However, in general we may proceed on the premise that items of expense incurred in the earning of assessable income are deductible for income tax purposes and items of capital expenditure should be capitalised and depreciated.

If a farmer farms on his own account then the income derived, and the expenses incurred accrue directly to him, as are the assets owned and the liabilities due by him. Should he farm through, say a company, then his income will consist of any salary and dividends paid by the company to him, and the company will incur the expenses and derive the revenues from the farming operation and be taxed accordingly.

6. COMPANY ASSESSMENT

6.1 Non Assessable Income

There are no special exemptions for a company, but a company may derive non assessable income. This is income which is not directly taxed, but which affects the rate of tax paid on the assessable income. Included in this class are dividends, and interest on debentures carrying a floating rate of interest, derived by a New Zealand company from other companies. Not included are such receipts from companies which are themselves wholly or partially exempt from income tax (e.g. Building Societies).

6.2 Company Taxation

The effective rate of tax (tax payable divided by assessable income) on a company's assessable income increases by .002 cents from 20.002 cents on the first dollar to 32.5 cents on an assessable income of \$6,250. Thereafter, the increase in the effective rate of tax slows down progressively until it approaches 45 cents at very high levels of income. (See table B - middle column).

Alternatively, the tax paid on each extra dollar of income up to \$6,250 increases from 20.002 cents on the 1st dollar to 45 cents on the 6250th dollar. Thereafter each extra dollar of income is taxed at a flat rate of 45 cents.

More formally, the tax payable is calculated:

1. Assessable income of up to \$6,250.

If we let Q = Assessable Income.

Tax payable (calculated in cents)

= $Q \times \text{Rate of Tax}$

$$= Q \times (20 \text{ cents} + .002 \text{ cents} \times Q)$$

Tax payable (calculated in dollars)

$$= Q(.2 + .00002Q)$$

2. Assessable income in excess of \$6,250

Tax payable (calculated in cents)

$$= (45 \text{ cents} \times Q) - 78125$$

Tax payable (calculated in dollars)

$$= .45Q - 781.25$$

The expression “.45Q - 781.25” gives effect to the slowing down of the increase in the rate of tax on additional income above \$6,250 mentioned above.

Note: See Table B for tax payable at different levels of income.

If the company receives dividends, which are non assessable income (see 6.1), calculate the tax payable on the assessable income (AI) plus dividends, and find the consequent effective rate of tax (tax payable divided by total income). Apply this rate to AI without dividends to determine the tax actually payable.

Alternatively:

$$\frac{\text{Tax on AI plus Dividends}}{\text{AI plus Dividends}} \times \text{AI} = \text{Tax Actually Payable}$$

Example: A.B. Ltd derived income from operations of \$8,300 for the year, and in addition received dividends of \$700 from C.D. Ltd. What is the income tax payable by A.B. Ltd.?

Assessable Income plus dividends (8,300 + 700) = \$9,000

$$\begin{aligned} \text{Tax on AI plus dividends} &= (.45 \times 9,000) - 781.25 \\ &= \$3268.75 \end{aligned}$$

The income tax payable is then

$$\frac{3268.75}{9,000} \times 8,300 = \$3,014.51$$

Example: Using the example of A.B. Ltd. again

| | |
|--------------------------|----------------|
| Income from operations | 4,300 |
| Dividends from C.D. Ltd. | 700 |
| | <u>\$5,000</u> |

$$\begin{aligned}\text{Tax on AI plus dividends} &= 5,000(.2 + .00002 \times 5,000) \\ &= \$1,500\end{aligned}$$

The income tax payable is then

$$\frac{1,500}{5,000} \times 4,300 = \$1,290$$

6.3 Bonus Issue Tax

A bonus issue is the capitalisation of the whole or part of:

1. amounts standing to the credit of a company's reserves or profit and loss account, or
2. amounts otherwise available for capitalisation – where the bonus issue is made by way of fully or partly paid-up shares in the company or by giving credit for amounts unpaid on existing shares in the company.

The term does not include:

1. shares issued in restoration of capital previously lost, or
2. distributions from capital profits or from the write-up of assets (other than goodwill) in excess of cost, or
3. distributions from the share premium reserve.

Bonus issue tax is levied at a flat rate of 17½ cents per dollar on the nominal value of the issue. The tax is payable by the company and the issue is exempt from taxation in the hands of shareholders. The tax is due by the 20th of the month following the month in which the bonus issue is made.

If the company winds up within three years of making a bonus issue, then further tax of 17½ cents per dollar may be payable.

6.4 Excess Retention Tax

This is a tax levied on 'privately controlled investment companies' – a proprietary company engaged principally in the investment of money or the holding of or dealings in shares, securities or properties. The tax, therefore, has only a very narrow application, and is levied when there has been an insufficient distribution of profits.

6.5 Losses Carried Forward

An individual or company taxpayer may carry forward a loss to be offset against future income, the loss to be ascertained by the same rules as apply in determining assessable income. The loss must be set off against the first available future assessment income. For a company claiming to carry forward a loss 40 percent of the shareholding must be held by or for the same persons in each of the years affected, except that if the failure to meet the 40 per cent common shareholding requirement –

1. has been occasioned by ordinary trading on the Stock Exchange during the intervening period, and
2. no one person or group of associated persons has acquired more than 10 per cent of the nominal or paid up capital of the company, –

then the loss will still be permitted to be carried forward for Tax purposes.

7. PARTNERSHIPS

There is no joint assessment on a partnership but each partner is separately assessed and liable for the tax payable on his total income including his share of the income of any firm in which he is a partner. Partners are required to make a joint return of the income of the partnership setting forth the amount of that income and the respective shares of the partners.

7.1 Relatives in Partnership

Such partnerships normally require to be evidenced by deed for taxation purposes, except in those cases where capital is a significant factor in earning, wherein the earnings of the partners must be in relation to their capital contributions. To prevent evasion of taxation, where relatives enter into partnership the Commissioner may allocate the income of the partnership 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. This discretionary power will not apply in the case of a bona fide contract of employment or partnership – such a contract which in general terms:

1. Is in writing or by deed
2. Is signed by parties over 20 years of age
3. Is binding on the parties for not less than three years
4. Allows each party real and effective control over his remuneration or share of profits
5. Allows for remuneration or a share of profits not of such nature as to constitute a gift either in whole or in part.

In determining whether a gift exists consideration may be taken for example, of –

1. The nature and amount of the capital contributions or the value of the services performed
2. The proportions of such contributions to remuneration or profit shares as between the partners
3. Whether the taxpayers would have entered into such a partnership arrangement with a non relative.

8. TRUST ASSESSMENT

8.1 Specified and Other Trusts

“Other Trusts” for taxation purposes are in general terms all trusts, except inter vivos trusts created on or after 19 July 1968, these being termed “Specified Trusts”. An “inter vivos” trust is one formed during the life of the settler.

8.2 Tax Liability

All the income of a trust is liable for tax in the hands of the trustees, either for trustees income or as agent for tax payable on beneficiaries income.

In the case of “beneficiaries income” (see below), the taxation liability is determined as if the beneficiary was personally deriving that income. That is, special exemptions and tax rebates may be taken into account, if known, where they apply, in determining the taxation liability.

Income not classed as beneficiaries income is “trustees income”. All such income from a trust is assessed in total in the hands of the trustees. The taxation liability on trustees income depends on whether the trust is an “other trust” or a “specified trust”.

1. Other Trust – a special exemption of up to \$100 is available on trustees income. The balance is taxable at the same rates as apply to individual taxpayers. There is no minimum rate of tax.
2. Specified Trust – no special exemption is available. The whole of trustees income is taxable at the rates applying to individual taxpayers or 35 cents per dollar, whichever is greater.

8.3 Beneficiaries Income

Trust income is classed as ‘beneficiaries income’ under the following conditions:

1. Adult Beneficiaries
 - (a) If the income vests in an adult beneficiary either by virtue of the trust deed or by the exercise of a trustee’s discretionary power, whether the beneficiary actually receives the income or not during the income year, or
 - (b) If a trustee is empowered or required by the terms of the trust deed to pay or apply some income for the benefit of nominated beneficiaries and the trustee does so pay or apply that income beyond his control as trustee during the year or within 6 months after the end of the income year.
2. Infant Beneficiaries
 - (a) Other Trust – if the income vests by virtue of the trust deed whether the infant actually receives that income or not, OR as for 1 (b) above
 - (b) Specified Trust – as for 1 (b) above so long as that income remains out of the trust or any business in which the trust is interested whilst the beneficiary remains an infant.

Any income not coming within the above is then trustees income. Tax on the income of a trust will normally be paid on a provisional basis, the return for the trust being

filed by the trustees. A beneficiary with income derived other than from the trust, should file a return of all his income including his trust income, and he will be allowed a credit for the tax paid on his behalf by the trustees.

Example: F, as settlor entered into a deed of trust on 1 April 1968 in favour of his wife W, son S, and daughter D, aged 14 and 22 years respectively. The deed provided that the trustees were to pay or apply such of the net annual income of the trust for the benefit of the beneficiaries as they saw fit, and any balance remaining was to vest indefeasibly and absolutely in the beneficiaries as W - half, S and D - quarter each, on 31 March of each income year.

The income of the trust for the year ended 31 March 1975 amounted to \$4,000, and the trustees in their discretion had paid \$2,000 to S and \$800 to D, the balance being vested as per the trust deed.

Assessments:

(a) On trustees as agents for S

| | |
|-----------------------------------|----------------|
| Income paid or applied - 2 (a) OR | 2,000 |
| Income vested - 2 (a) | 300 |
| | <u>\$2,300</u> |
| Income Tax on \$2,300 | 400 |
| Less Personal Rebate | 125 |
| Tax Payable (individual rates) | <u>\$ 315</u> |

(b) On trustees as agents for D

| | |
|--------------------------------|-----------------|
| Income paid or applied - 1 (b) | 800 |
| Income vested - 1 (a) | 300 |
| | <u>\$1,100</u> |
| Income Tax on \$1,100 | 201.50 |
| Less Personal Rebate | 125 |
| Tax Payable (individual rates) | <u>\$ 76.50</u> |

(c) On trustees as agents for W

| | |
|-----------------------|---------------|
| Income vested - 1 (a) | <u>\$ 600</u> |
|-----------------------|---------------|

| | |
|--------------------------------|-------------------|
| Income tax on \$600 | 108.50 |
| Less Personal Rebate | <u>125.00</u> |
| Tax Payable (individual rates) | <u><u>NIL</u></u> |

If the trust had instead been created 1 April 1969, it would have been a "Specified Trust" with assessments:

- (a) (i) On trustees as agents for S
- | | |
|--------------------------------|------------------|
| Income paid or applied - 2 (b) | <u>\$2,000</u> |
| Income Tax on \$2,000 | 372.50 |
| Less personal Rebate | <u>125.00</u> |
| Tax Payable (individual rates) | <u>\$ 247.50</u> |
- (ii) On trustees
- | | |
|--|---------------|
| Trustees income | 300 |
| Exemption | <u>Nil</u> |
| | <u>\$ 300</u> |
| Tax Payable (at minimum rate - \$0.35) | <u>\$ 105</u> |
- (b) On trustees as agents for D - as (b) above
- (c) On trustees as agents for W - as (c) above

9. TAXATION DUE DATES

9.1 Classes of Individual Taxpayers

1. P.A.Y.E. — those with incomes taxed at source (e.g. salary and wage earners) with not more than \$200 from dividends, rents and interest. Such persons must file an annual return by 7 June for final assessment.
2. Provisional — those with income not taxed at source, or those with incomes taxed at source, but with dividends, rents and interest in excess of \$200. Returns are due:
 - (a) 7 September if in latter category above or with income, rather than withholding payments, from business, farming or profession with balance date falling between 30 September and 8 June.
 - (b) Within two months of balance date if this falls between

7 June and 1 October.

3. Certain individuals are not required to file returns:
 - (a) income taxed at source \$275 or less with income not taxed at source coming from dividends only
 - (b) income taxed at source \$2,600 or less and income from interest \$100 or less
 - (c) income coming from dividends only and \$1,100 or less

9.2 Classes of Company Taxpayers

All companies now pay tax on a provisional basis. Some companies incorporated before 26.7.57 (previously called Subsisting Companies) will still be paying off instalments of their taxation liability outstanding at the time they became provisional taxpayers.

The due dates for filing returns are

1. 7 September — those with balance date falling between 30 September and 8 June.
2. Within two months of balance date if this falls between 7 June and 1 October.

9.3 Tax Payments by Individuals

1. P.A.Y.E. — pay at source, unless P.A.Y.E. deductions were insufficient to meet the assessed liability in which case terminal tax is due 7 February.
2. Provisional tax is due in two instalments in August and February whichever comes first after balance date, except a person engaged in agricultural business who
 - (a) balances between 1 April and 30 September, and
 - (b) regularly receives more than half his income from agriculture, and
 - (c) regularly receives more than half his gross cash income after 7 February— may pay provisional tax in three equal instalments

due 7 August, 7 February and 7 May. Otherwise 1/3 is due in the first instalment and 2/3 in the second instalment.

If a balance date falls within two months before August or February, the due dates are extended to allow a two month interval. Terminal tax falls due on February 7 of the calendar year following balance date, (see table below).

TAXATION DUE DATES FOR INDIVIDUAL PROVISIONAL TAXPAYERS 1975 - 76 Income Year

| Balance Month | | First Provisional Instalment | Second Provisional Instalment | Terminal Tax |
|------------------|------|------------------------------------|-------------------------------------|-----------------|
| Oct. | 1975 | Feb. 7, 1975 | Aug. 7, 1975 | Feb. 7, 1976 |
| Nov. | 1975 | Feb. 7, 1975 | Aug. 7, 1975 | Feb. 7, 1976 |
| Dec. | 1975 | Mar. 7, 1975 | Sept. 7, 1975 | Feb. 7, 1976 |
| Jan. | 1976 | Apr. 7, 1975 | Oct. 7, 1975 | Feb. 7, 1977 |
| Feb. | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| Mar. | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| Apr. | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| May | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| June | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| July | 1976 | Oct. 7, 1975 | Apr. 7, 1976 | Feb. 7, 1977 |
| Aug. | 1976 | Feb. 7, 1976 | Aug. 7, 1976 | Feb. 7, 1977 |
| Sept. | 1976 | Feb. 7, 1976 | Aug. 7, 1976 | Feb. 7, 1977 |

and similarly for subsequent years.

Note: Read (9.5) in conjunction with this table.

9.4 Tax Payments by Companies

All companies will generally pay tax in two instalments falling due 7 August and 7 February whichever comes first after balance date. Where balance date falls within two months before these two dates, the usual extension is allowed except for June balances (see table over page). Terminal tax is due 7

February except as provided in the table below.

TAXATION DUE DATES FOR COMPANY TAXPAYERS
1975 - 76 Income Year

| Balance Month | | First Provisional Instalment | Second Provisional Instalment | Terminal Tax |
|----------------------|------|-------------------------------------|--------------------------------------|---------------------|
| Oct. | 1975 | Feb. 7, 1975 | Aug. 7, 1975 | Sept. 7, 1976 |
| Nov. | 1975 | Feb. 7, 1975 | Aug. 7, 1975 | Oct. 7, 1976 |
| Dec. | 1975 | Mar. 7, 1975 | Sept. 7, 1975 | Nov. 7, 1976 |
| Jan. | 1976 | April 7, 1975 | Oct. 7, 1975 | Dec. 7, 1976 |
| Feb. | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Jan. 7, 1977 |
| March | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| April | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| May | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| June | 1976 | Aug. 7, 1975 | Feb. 7, 1976 | Feb. 7, 1977 |
| July | 1976 | Oct. 7, 1975 | April 7, 1976 | Feb. 7, 1977 |
| Aug. | 1976 | Feb. 7, 1976 | Aug. 7, 1976 | Feb. 7, 1977 |
| Sept. | 1976 | Feb. 7, 1976 | Aug. 7, 1976 | Feb. 7, 1977 |

and similarly for subsequent years.

9.5 General

1. 'Balance Month' refers to the calendar month and not to the period from 8th of one month to 7th of following month.
2. Balance dates other than March 31 must be approved by the Commissioner.
3. Applicable tax year to those balancing other than 31 March
 - (a) balance 1.4.75 - 30.9.75 – tax year to 31.3.75
 - (b) balance 1.10.75 - 31.3.76 – tax year to 31.3.76
4. Although tax payments may be due by a certain date, any penalty for late payment will not usually be levied till one month after due date.

10. FARM TAXATION

Certain features of the taxation system apply specifically to agriculture because of the special place it holds within the economy. Farmers pay tax on assessable income as do other taxpayers, however, in order to encourage capital investment, increased stock numbers, etc. and in view of the highly variable nature of farm income, certain considerations apply in assessing farm income.

10.1 Valuation of Livestock

A choice in valuation is available

1. Cost, market or replacement value.
2. Standard Value — a value approximating the average market value of stock of a particular class. In practice, once a standard value has been adopted the Commissioner will not usually require the adoption of true market values each year in a continuing operation, nor will different standard values for different classes of livestock be required. (i.e. the same standard value may be applied to 2th ewes, M.A. ewes and rams if desired).

Once established, a standard value may be altered with the concurrence of the Commissioner, but in practice an increase to a value still within the market value of the livestock will not usually require prior approval.

In addition:

- (a) New farmers on new farms — may, if desired, write stock down to standard values over a period of up to three years.
- (b) Standard values are not available to livestock dealers.
- (c) Reliefs are available by allowing the spreading of resultant large incomes either forward or backward over three years in the event of a sale of livestock occasioned by death, retirement, adverse events, expiry of lease etc.
- (d) For income tax purpose, gifts of livestock to children (who are at least 18 years of age, and who use those stock in a farming operation) may be made at a

reasonable standard value, i.e. not unduly low. Note any gift duty will be assessed on the market value of the stock however.

3. Nil Value – the valuation of stock above a basic number at nil value.

- (a) The basic number is the greater number of stock held in the past two income years prior to joining the scheme.
- (b) At the end of each income year the taxpayer may value any or all stock above the basic number in each class at nil value.
- (c) The scheme is only available for cattle, sheep, and pigs.
- (d) Where stock numbers in a particular class fall below the basic number, a compensatory decrease in the other classes to be valued at nil value must be made on the basis

| | | |
|----------|---|---------|
| 1 cattle | = | 6 sheep |
| 1 cattle | = | 4 pigs |
| 3 sheep | = | 2 pigs |
- (e) Special provisions apply where there is a change in the basic nature of the farming operation, or where a drop below the basic number is occasioned by an adverse event.
- (f) The scheme is available for stud stock.

Example: A sheep and cattle farmer, balancing June 30, elects to join the nil value scheme 1.7.72

| | Stock on Hand | | Basic No. | Stand. Value \$ |
|--------|---------------|---------|-----------|--------------------|
| | 30.6.71 | 30.6.72 | | |
| Sheep | 3,500 | 3,000 | 3,500 | 5 |
| Cattle | 150 | 200 | 200 | 50 |

| | | |
|----------------|-----------------------------|----------|
| Stock on Hand: | Sheep – 4,000: Cattle - 250 | |
| Valued as | Sheep – 3,500; at \$5 | \$17,500 |
| | 500 at Nil | |
| | Cattle – 200 at \$50 | \$10,000 |
| | 50 at Nil | |

| | | |
|----------------|-----------------------------|----------|
| Stock on Hand: | Sheep – 5,500; Cattle - 150 | |
| Valued as: | Sheep – 3,500 at \$ | \$17,500 |
| | plus 300 at \$) *\$ 1,500 | |
| | 1,700 at Nil) | |
| | Cattle 150 at \$50 | \$ 7,500 |

| | | |
|-----------------------------------|------------|--------------|
| Sheep numbers | 5,500 | |
| less reductions in cattle numbers | | |
| 50 cattle x 6 sheep | <u>300</u> | 5,200 |
| less basic number of sheep | | <u>3,500</u> |
| Number Valued at Nil Value | | <u>1,700</u> |

The assessable income of a farmer will include all wages, revenues from product sold, contracting income, etc., as expected but will also include, *inter alia*

1. The value of farm produce privately consumed
2. Net prize money from 'A & P' shows
3. Rents from land let
4. Stud fees received
5. Some compensation payments received

6. Net receipts from bailed livestock
- 10.3 Farm Expenses
- Will include inter alia
1. Legal expenses incurred in arranging finance for the purchase of, or in arranging for the lease of, income producing assets.
 2. Telephones.
 3. Car depreciation (D.V. — Diminishing Value)
 - (a) Half of 20% D.V. where farmer has car and truck
 - (b) Three-quarters of 20% D.V. where farmer has car only.

Car expenses are allowed in similar proportions unless evidence indicates a greater proportion.

Where the car was purchased after 23.10.74, the maximum depreciable initial cost is \$6,000.
 4. Employee food and/or lodgings — where accurate records are kept the actual cost is deductible; otherwise \$2 per week per employee. Note that the value of benefits in kind provided to employees such as meals, lodgings, housing etc. must be added to the wages paid, and tax deducted accordingly.
 5. Depreciation — see below
 6. Maintenance costs on sheep yards, submersion dips and fencing. The outlay cost of such items will usually be claimed as development expenditure.
 7. Cost of papers or magazines containing farming information.
 8. Domestic power — $\frac{1}{4}$ of such cost is deductible if the dwelling is situated on the farm.
 9. Wages paid to wife
 - (a) Payments made to a wife for cooking duties in respect to permanent employees (including adult members of the farmer's family employed full time)

will be allowed on the basis

- (i) 1 permanent employee – \$6 per week
 - (ii) 2 permanent employees – \$9 per week
- and thereafter an additional \$1.50 per man per week.

Note that a simple declaration that the wages are for genuine services, regular cash payments, and tax deductions in the proper manner, will be required.

This allowance is in addition to any special arrangements made in respect of seasonal or part-time employees e.g. shearers.

- (b) Payments made to a wife for farm working duties must have the prior approval of the Commissioner. An application for approval must set out certain details but subsequent to approval only written confirmation that wages are still being paid on the agreed basis is required.

Approval (where required) for such payments should be obtained when action is contemplated, not after payments are made. This is especially important for Accident Compensation purposes, since retrospective approval is unacceptable.

10.4 Depreciation

From 1.4.75 both the system of allowances for ordinary, special, and supplementary depreciation and also the investment allowance (in respect of the acquisition of new or second hand capital assets) are replaced by a system of single first year allowances.

1. Initial Allowances

A single first year allowance will be deductible in the income year in which an asset is first used in the production of assessable income as follows:

| | |
|--|-------------|
| New plant and Machinery (not motor cars) | 60 per cent |
|--|-------------|

| | |
|--|-------------|
| Secondhand Plant and Machinery (not motor cars) | 50 per cent |
| New Farm Buildings, Extensions and Capital Alterations (not dwellings) | 40 per cent |
| New Employee Accommodation | 22 per cent |

Note that special rates apply to the Auckland and Wellington Regional districts.

2. For other assets, claim ordinary depreciation in the first year of use as in (3) below.
3. Subsequent Depreciation Allowances
In the second and subsequent years ordinary depreciation, generally as an annual deduction, will be allowed provided adequate records are maintained. The rates scheduled below are the maximum rates of ordinary depreciation allowable for income tax purposes, although a lesser rate may be claimed if desired.

Selected Rates of Ordinary Depreciation (See also 10.5)

| Asset | Structure | Per Cent | |
|--|--------------------------|-------------|------|
| Barns | Loafing and wintering | 10 | C.P. |
| Bridges | Wooden | 2½ | C.P. |
| | Other | 2 | C.P. |
| Buildings | Reinforced concrete | 1 | C.P. |
| | Brick, stone or concrete | 2 | C.P. |
| | Wooden | 2½ | C.P. |
| | Portable Hut | 10 | D.V. |
| Note: Special rates for silos, pig sties, etc. | | | |
| Crates | Sheep and cattle | 15 | D.V. |
| Dams and | | | |
| Reservoirs | Reinforced concrete | 1 | C.P. |
| | Other | maintenance | |
| Dips | Spray type | 10 | D.V. |
| Ensilage Pits | Concrete bunkers with | | |
| | sliding roof | 10 | D.V. |
| Equipment | Tractor drawn | 10 | D.V. |

| | | | |
|---------------------------|-----------------------------|-----|------|
| | Self propelled | 20 | D.V. |
| Feed out units for cattle | | 4 | C.P. |
| Fences | Electric | 10 | D.V. |
| Freezers | For dog tucker | 10 | D.V. |
| Glasshouse | Metal frame | 3 | C.P. |
| | Wooden frame | 5 | C.P. |
| Motor Bikes | | 20 | D.V. |
| Milk Sheds | Erected before 1.4.66 | 4 | C.P. |
| | Other | 10 | C.P. |
| | Herringbone conversion cost | 10 | C.P. |
| | Herringbone or Rotary plant | 10 | D.V. |
| Pig Sties | | 10 | C.P. |
| Radio Equipment | | 20 | D.V. |
| Roofing | as for building | | |
| Saws | Chain | 50 | D.V. |
| Silo | Erected on farm | 10 | D.V. |
| Slaughterhouse | Concrete | 5 | C.P. |
| | Timber and concrete | 6 | C.P. |
| | Timber | 10 | C.P. |
| Tractor Safety frames | | 100 | C.P. |
| Windmill | | 10 | D.V. |

4. Assets (other than buildings) Sold after Deduction of Depreciation Allowances

- (a) Where an asset is sold or disposed of for consideration in excess of its depreciated book value, such excess is assessable income in the year in which the asset is disposed of, except that
- (b) Where the amount of such excess on disposition exceeds \$1000 the resultant assessable income may be spread, evenly or unevenly, between the income year and any number of immediately preceeding income years not exceeding three, or alternatively
- (c) The amount of such excess may be set off against the cost of any replacement asset. The initial allowance

and subsequent ordinary depreciation allowances for the new plant will be claimed in respect of this reduced opening book value.

- (d) Receipts in excess of initial cost are not assessable income.
- (e) Where an asset is sold or disposed of for consideration less than the depreciated book value, the resultant book loss is deductible from assessable income in the year of sale.

5. **Buildings Sold after Deduction of Depreciation Allowances.**

(a), (d), and (e) above apply to buildings, except that

- (a) Any ordinary depreciation recovered on sale of a building is not assessable income.
- (b) In the case of a building owned for 10 years or more, no allowances or depreciation recovered on sale is assessable for income tax purposes.

NOTE: See 1974 Budget Manual for treatment of Special and Supplementary Depreciation, etc. subsequently recovered on sale or other disposition.

Example: A farmer balancing June 30, buys a new tractor costing \$5000 on July 1, 1975. He uses the tractor for three years at which time he is allowed \$3000 for it as a trade-in on a new tractor costing \$7000 and purchased 1.7.78.

The treatment of depreciation for income tax purposes could be as follows:

| | Depreciation | Book Value |
|--------------------------|-------------------------------|------------|
| Year ended June 30, 1976 | | |
| Initial allowance | $60\% \times \$5000 = \3000 | \$2000 |
| Year ended June 30, 1977 | | |
| Ordinary Deprec. | $20\% \times \$2000 = \400 | \$1600 |
| Year ended June 30, 1978 | | |
| Ordinary Deprec. | $20\% \times \$1600 = \320 | \$1280 |

Three alternative treatments of the excess of sale proceeds over the depreciated book value are available:

- (a) Treat the excess (i.e. $3000 - 1280 = \$1720$) as assessable income for the year ended June 30, 1979.
- (b) Spread the excess over this year and up to three preceeding years by altering the deductions which were allowed in respect of depreciation etc., on the tractor and reassess the taxation liability for each of those years.
- (c) Set the excess off against the acquisition cost of the new tractor so that the initial allowance on the new tractor will be:

$$60\% \times (7000 - 1720) = \$3168$$

10.5 Development Expenditure

Certain expenditures incurred during an income year which would otherwise be capitalized and depreciated may be treated as expense for income tax purposes. The deduction of this expenditure may be deferred, either in whole or in part, for up to nine years, and includes inter alia, expenditures on:

1. Eradication of animal and vegetable pests.
2. Clearing and cultivation of land in preparation for agriculture.
3. Swamp drainage.
4. The sinking of bores, and the construction of dams, stop banks, and irrigation channels.
5. Construction of roads, access tracks and topdressing landing strips
6. Construction of fences.

In addition the purchase and spreading costs of fertilizer application may be deferred for up to four years.

10.6 Income Levelling Schemes

Several schemes are available to taxpayers deriving income from agriculture, which may serve to dampen the highly variable nature of farm incomes and subsequent taxation payments.

1. Income Equalisation Scheme.

In years when unappropriated funds exist, a taxpayer may deposit sums tax free and withdraw them at a later date to then become assessable income.

General conditions of the scheme include:

- (a) to be included in a particular income year, the deposit must be made either
 - (i) within six months from balance date, or
 - (ii) within one month from the due date for filing the return of income

whichever is the shorter period.

- (b) the conditions for the inclusion of refunds in a particular income year are similar to (a) above
- (c) there is no maximum deposit but the minimum deposit must usually be \$200
- (d) the minimum period of deposit is one year (able to be relaxed under certain circumstances) and the maximum period five years.
- (e) a refund will not attract more tax than the deposit saved
- (f) refunds will be made on a first in - first out basis.

2. Adverse Event Bonds:

These, in multiples of \$5, are available for purchase from any Post Office. General conditions of the scheme include inter alia,

- (a) The purchase cost of the Bonds will be deductible from assessable income and the proceeds on redemption included in assessable income for income tax purposes.
- (b) The conditions for inclusion in any one year are as for the Income Equalisation Scheme – See 1 (a) and 1 (b) above.
- (c) The maximum deduction in respect of bond purchase

allowable in any one year will be up to 40 per cent of a taxpayer's assessable income for that year.

- (d) The Bonds will earn interest at 3½ per cent per annum, payable on the anniversary of the Bond purchase. The interest will be included in assessable income each year subject to any interest exemption.
- (e) The Bonds will be redeemable only on the occurrence of an adverse event (e.g. snow, drought, flood) although exceptions may be made in the case of serious financial hardship, death, retirement etc.

3. Estimate of Income

A provisional taxpayer who thinks his current income will be less than his previous year's income may estimate his current income and pay provisional tax accordingly. A re-estimate may be made up to the time the last instalment is due.

However, a penalty is payable if this estimate is less than the previous year's income and less than 80 per cent of the actual current income, unless an unforeseeable event was the reason.

- 4. Deferred Development Expenditure – as above.
- 5. Nil Standard Value for Livestock – as above.

TABLE A
SCALE OF RATES OF INDIVIDUAL INCOME TAX

| Taxable Income | | | Rate | | |
|----------------------------------|---------------|--------------|-----------|------------------|----------|
| On so much of the taxable income | | | | | |
| Exceeding | Not Exceeding | | | | |
| \$ 0 | \$ 500 | — \$ 0 | plus 18 | % of excess over | \$ 0 |
| \$ 500 | \$ 1,000 | — \$ 90 | plus 18.5 | % of excess over | \$ 500 |
| \$ 1,000 | \$ 2,000 | — \$ 182.50 | plus 19 | % of excess over | \$ 1,000 |
| \$ 2,000 | \$ 2,500 | — \$ 372.50 | plus 22.5 | % of excess over | \$ 2,000 |
| \$ 2,500 | \$ 3,000 | — \$ 485 | plus 26.5 | % of excess over | \$ 2,500 |
| \$ 3,000 | \$ 3,500 | — \$ 617.50 | plus 28.5 | % of excess over | \$ 3,000 |
| \$ 3,500 | \$ 4,000 | — \$ 760 | plus 32 | % of excess over | \$ 3,500 |
| \$ 4,000 | \$ 4,500 | — \$ 920 | plus 34.5 | % of excess over | \$ 4,000 |
| \$ 4,500 | \$ 5,000 | — \$1,092.50 | plus 36 | % of excess over | \$ 4,500 |
| \$ 5,000 | \$ 5,500 | — \$1,272.50 | plus 39 | % of excess over | \$ 5,000 |
| \$ 5,500 | \$ 6,000 | — \$1,467.50 | plus 41.5 | % of excess over | \$ 5,500 |
| \$ 6,000 | \$ 6,500 | — \$1,675 | plus 44.5 | % of excess over | \$ 6,000 |
| \$ 6,500 | \$ 7,000 | — \$1,897.50 | plus 46 | % of excess over | \$ 6,500 |
| \$ 7,000 | \$ 8,000 | — \$2,127.50 | plus 47 | % of excess over | \$ 7,000 |
| \$ 8,000 | \$ 9,000 | — \$2,597.50 | plus 48 | % of excess over | \$ 8,000 |
| \$ 9,000 | \$10,000 | — \$3,077.50 | plus 48.5 | % of excess over | \$ 9,000 |
| \$10,000 | \$11,000 | — \$3,562.50 | plus 49 | % of excess over | \$10,000 |
| \$11,000 | \$12,000 | — \$4,052.50 | plus 49.5 | % of excess over | \$11,000 |
| \$12,000 | | — \$4,547.50 | plus 50 | % of excess over | \$12,000 |

TABLE B
COMPANY TAX RATES AND TAX PAYABLE

| Assessable Income \$ | x | Effective Rate of Tax | = | Tax Payable |
|-------------------------|---|--------------------------|---|----------------|
| 1 | | \$0.20002 | = | 0.20 |
| 1,000 | | .22 | = | 220.00 |
| 2,000 | | .24 | = | 480.00 |
| 3,000 | | .26 | = | 780.00 |
| 4,000 | | .28 | = | 1,120.00 |
| 5,000 | | .30 | = | 1,500.00 |
| 6,000 | | .32 | = | 1,920.00 |
| 6,249 | | .32498 | = | 2,030.80 |
| 6,250 | | .325 | = | 2,021.25 |
| 6,251 | | .32502 | = | 2,031.70 |
| 7,000 | | .338 | = | 2,368.75 |
| 8,000 | | .352 | = | 2,818.75 |
| 9,000 | | .363 | = | 3,268.75 |
| 10,000 | | .372 | = | 3,718.75 |
| 15,000 | | .398 | = | 5,968.75 |
| 20,000 | | .411 | = | 8,218.75 |
| 30,000 | | .424 | = | 12,718.75 |
| 40,000 | | .430 | = | 17,218.75 |
| 50,000 | | .434 | = | 21,718.75 |
| 100,000 | | .442 | = | 44,218.75 |
| 500,000 | | .448 | = | 224,218.75 |
| 1,000,000 | | .449 | = | 449,218.75 |

11. REFERENCES

The principal references are listed below:

- (1) A Guide to New Zealand Income Tax Practice, 34th Edition.
— C.A. Staples.
- (2) L. & I.T. Act, 1954. The Land and Income Tax Act, 1954, and
subsequent amendments.

In addition the following will prove an invaluable source of further information:

Public Information Bulletins issued by the Inland Revenue Department.

Information Pamphlets issued by the Inland Revenue Department.

Many past volumes of The Accountants Journal — The New Zealand Society of Accountants.

SECTION 4
GIFT DUTY AND ESTATE DUTY

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GIFT DUTY

1. Estate and Gift Duties Act, 1968, and subsequent amendments

1.1 Explanations

1. Gift – is any disposition of property, whenever and however made, otherwise than by will, without fully adequate consideration in money or money's worth passing to the donor.
2. Disposition of Property – is any alienation of property, whether at law or in equity, and includes:
 - (a) the allotment of shares in a company.
 - (b) the creation of a trust.
 - (c) allowing a debt to remain outstanding until it can not be enforced by normal legal procedure.
3. Application – duty is payable on every dutiable gift i.e. a gift may be dutiable if the property and/or the donor is situated in New Zealand.
4. Disposition of Property by Controlled Company – such a gift is deemed to have been made by the controller of that company. A controlled company is any company, which at the time of the disposition of the property, is controlled by, or on behalf of, any one person (e.g. he controls 51% of voting shares).

1.2 Valuation of Gifts

1. A gift is valued as at the date of making that gift.
2. Valuation of land is determined either
 - (a) by agreement between the donor and the Commissioner
 - (b) by reference to the Government Valuation plus value of subsequent improvements
 - (c) by a special valuation made by the Valuer – General, subject to any appeal by the donor with respect to this valuation.
3. Valuation of other property shall, subject to the provisions of the Act, be by agreement between the donor and the Commissioner (see E & G.D. Act 1968; Ss 18 - 30).

1.3 Exemptions

1. Gifts made over any calendar year by the same donor to the same donee, made in good faith as part of normal

expenditure which do not exceed in total \$400.

2. Gifts made toward the maintenance or education of any relative if not excessive in amount and having regard to the obligation of the donor.
3. Gifts made to charitable bodies.
4. Where a superannuant elects to accept a reduced pension in consideration of the payment upon his death of a pension to his dependent that election shall not constitute a dutiable gift.
5. Certain payments to employees by employers.
 - (a) Normal contributions to group superannuation schemes.
 - (b) Gratuitous payments to employees for faithful service or upon retirement if
 - (i) not made by a controlled company to a relative of the controller
 - (ii) not made to a relative of the employer, if employer is not a company
 - (c) Payments made to the widow of a deceased employee under the same conditions as pertain in (b) above.
6. The settlement of Joint Family Homes.
7. See (1.5 (1))

1.4 Reliefs

If gift duty is paid on a gift both here and overseas, a relief may be granted of half the New Zealand duty paid or half the overseas duty paid whichever is the less, provided the overseas country allows a similar rebate.

1.5 Aggregation of Gifts

1. Duty does not become payable until the value of any gifts over any twelve month period exceeds \$4,000 in total value (but see 1.6 (1)).
2. If more than one gift is made within a twelve month period, the duty is apportioned to the various gifts involved.
3. The amount of duty payable on each dutiable gift is

calculated:

$$\frac{A}{B} \times C$$

where "A" is the value of the present dutiable gift. "B" is the value of all dutiable gifts, including the present gift, made, over the past twelve month period. "C" is the duty on "B" from Table C.

Example: A Donor made the following gifts –

| | |
|---------|--------|
| \$3,000 | 1.6.73 |
| \$2,000 | 1.5.74 |
| \$6,000 | 1.5.75 |

What is the total gift duty payable?

| | |
|----------------------------|-----------|
| 1.5.74 : \$3,000 + \$2,000 | = \$5,000 |
| Duty payable on \$5,000 | = \$ 90 |

apportioned

$$\frac{3,000}{5,000} \times 90 = \$54 \text{ on gift of } \$3,000$$

$$\frac{2,000}{5,000} \times 90 = \$36 \text{ on gift of } \$2,000$$

| | |
|------------------------------|---------------|
| 1.4.75 : \$2,000 + \$6,000 | = \$8,000 |
| Duty on \$8,000 | = \$ 400 |
| less already paid on \$2,000 | = \$ 36 |
| Duty payable on \$8,000 | <u>\$ 364</u> |

apportioned

$$\frac{2,000}{8,000} \times 364 = \$91 \text{ on gift of } \$2,000$$

$$\frac{6,000}{8,000} \times 364 = \$273 \text{ on gift of } \$6,000$$

1.6 Assessment and Collection

1. If the value of the present gift exceeds \$2,000, or if the aggregated value of this gift and all other gifts made over the past twelve month period exceeds \$2,000, a gift statement must be delivered to the Commissioner by the donor

within three months of making the gift.

2. If the donor fails to deliver the gift statement within the specified time the donee has an extra month to do so.
3. If gift duty remains unpaid within six months of making a dutiable gift a penalty to 5 per cent will be added to the unpaid duty.
4. Interest at 5 per cent 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.

2.

ESTATE DUTY

Estate and Gift Duties Act, 1968, and subsequent amendments.

2.1 Factors in Determining the final Balance.

The following items must be taken into account when assessing the value of the estate of a deceased person for Estate Duty purposes:

Estate Assets
plus Notional Estate
less Exemptions
Dutiable Estate
less Allowable Debts
Final Balance

Duty payable will be assessed on the final balance, and reliefs from this duty granted as they apply. See Table D.

2.2 Estate Assets

Included in the dutiable estate will be all property belonging to, and all debts owing to the deceased if the property and debts, or the deceased were domiciled in New Zealand at the time of death, Note this means that overseas property held by the deceased, if domiciled in New Zealand at time of death is to be included in the dutiable estate.

2.3 Notional Estate

Will include inter alia:

1. Dutiable gifts made within the past three years.

2. Any gift made with reservation, whenever made.
3. Any disposition of property in which the deceased has retained an interest.
4. The deceased's beneficial interest in any property held jointly other than a joint family home.
5. The value of any pensions payable to a survivor on the death of the deceased.
6. The value of any beneficial interest in a life assurance policy disposed of by the deceased within three years prior to his death, less the value of any consideration received. If the interest was disposed of to a non relative, then (1) above applies, but if disposed of to a relative; then the value of the disposition is calculated for estate duty purposes:

$$\left(\frac{\text{Premiums payable to disposition}}{\text{Premiums payable to death}} \times \frac{\text{Gross proceeds in proportion}}{\text{to interest disposed of}} \right) \text{ less the value of any consideration received}$$

2.4 Exemptions

Will include inter alia:

1. Non-dutiable gifts made absolutely
2. Up to \$4,000 on the value of personal chattels belonging to the deceased at the time of death.
3. The first \$2,000 p.a. of any pension or annuity payable to the widow of the deceased from a group superannuation scheme.
4. The total of any such annuity payable to an infant child of the deceased until the child attains the age of twenty years.
5. Accrued Social Security benefits and war pensions.
6. The value of a residence registered as a joint family home.

2.5 Allowable Debts

Will include all debts owing by the deceased at the time of

death and reasonable funeral expenses, but will exclude administration expenses and any estate duty payable. Mortgages etc. on joint family homes are not allowable debts since the value of such homes is itself exempt.

2.6 Valuation of Estate

1. All property included in the dutiable estate will be valued as at the date of death.
2. Gifts will be valued as at the date of disposition.
3. The valuation of property for Estate Duty purposes will be as outlined for the valuation of property for Gift Duty purposes (see 1.2).
4. Special provisions apply in the valuation of annuities and pensions etc., for Estate Duty purposes and care should be exercised in assessing such values.
(See E & G.D. Act, 1968; Ss 18 - 30)

2.7 Reliefs

The following reliefs from estate duty otherwise payable on the final balance of the estate of a deceased person are available where they apply.

1. Succession of wife (or husband) – relief of \$60,000 or the value of the succession, whichever is less. The succession will include the value of any life interest, properties or annuities bequeathed.
2. Succession of Infant Children
 - (a) On the death of one parent, a relief of \$1,000, or the value of the succession whichever is less
 - (b) On the death of the last surviving parent, a relief of \$10,000 or the value of the succession, whichever is less, is available to children aged five and less.

Where a child is over five, the maximum relief of \$10,000 is reduced by \$2,500 for each additional five years of age up to twenty years.
3. Succession for Lineal Descendents of Servicemen – a relief of \$15,000 or the value of the succession whichever is less.

The amount of any relief available as in 1, 2, and 3 above is calculated as follows:

$$\frac{A}{B} \times C$$

where A is the value of the succession or the appropriate relief, whichever is less

B is the final balance of the estate

C is the duty on the final balance (from Table D)

4. There is provision for relief if estate duty is payable both in New Zealand and overseas.
5. There is provision for relief from successive estate duties.
6. Any gift duty paid by the deceased on gifts included in the notional estate will be refunded and included in the dutiable estate of the deceased donor. Otherwise such duty will be refunded to the person who paid the duty. Interest at 3% per annum on such duty calculated from the date the gift duty was paid to the date of death, will also be refunded. This interest is not subject to income tax and will not be included in the dutiable estate of the deceased.

2.8 Assessment and Collection

1. The administrator should deliver a statement of the estate of the deceased person within six months of the grant of administration.
2. Once the notice of assessment has been issued, by the Commissioner any estate duty payable should be paid within three months.
3. If the duty remains unpaid as in (2) above a penalty of 5 percent of the unpaid duty becomes payable.
4. Interest at 5 percent p.a. becomes payable on any estate duty, and subsequently any penalty payable, on any estate duty unpaid within six months of the date of death.

Example: A.B. died June 30, 1974 and his estate included the following property:

| | |
|--|-------------------------|
| Shares and debentures | \$35,000 |
| Residence, registered as a joint family home with G.V. | \$45,000 ⁽¹⁾ |

| | |
|---|----------|
| Personal effects | \$ 5,000 |
| Cash at P.O.S.B. (with interest accrued of (\$50) | \$ 3,250 |
| Car and Boat | \$ 8,700 |
| Mortgage over son John's farm | \$75,000 |
| plus interest accrued | \$ 1,500 |

His liabilities were:

| | |
|--------------------------------------|-------------------------|
| Mortgage over home | \$15,000 ⁽¹⁾ |
| Sundry creditors | \$ 1,700 |
| Income tax assessed to date of death | \$ 1,800 |
| Funeral expenses amounted to | \$ 500 |

In May 1954 A.B. took out a policy on his life and paid the premiums of \$250 each year. In April 1972 he sold a half interest in the policy to his wife for \$6,500 which was half the then surrender value. A.B. continued to pay premiums to his death. The gross proceeds at death were \$20,000.

A.B. had also contributed to a superannuation scheme which on his death would provide an annuity of \$3,000 p.a. to his widow for her life. In addition A.B. had forgiven debts to his son John as follows:

| | |
|--------|----------|
| 1.1.71 | \$10,000 |
| 2.1.72 | \$10,000 |
| 3.1.73 | \$10,000 |

The gift duty of \$660 in respect of each gift had been paid by John.

In his will, A.B. made the following bequests:

| | |
|--------------------------------------|----------|
| To son John, aged 28 - debt forgiven | \$25,000 |
| To daughter Sue, aged 18 - Cash | \$25,000 |
| To wife, aged 65 - the residue | |

The final balance on which duty would be assessed is calculated as follows:

| | |
|-----------------------|--------|
| Estate Assets | \$ |
| Shares and Debentures | 35,000 |

| | | |
|---|----------------------------|-----------------------------|
| Personal Effects | 5,000 | |
| Less exemption | <u>4,000</u> | 1,000 |
| Cash and Accrued Interest | | 3,300 |
| Car and Boat | | 8,700 |
| Mortgage and Accrued Interest | | 76,500 |
| Proceeds of Assurance Policy | | <u>10,000⁽²⁾</u> |
| | | \$134,500 |
| Plus Notional Estate | | |
| Dutiable gifts to son John | 20,000 ⁽³⁾ | |
| Annuity payable to widow | 10,303 ⁽⁴⁾ | |
| Interest in life policy disposed of | <u>2,071⁽⁵⁾</u> | <u>32,374</u> |
| | | 166,874 |
| Less allowable Debts: | | |
| Sundry creditors | 1,700 | |
| Income tax | 1,800 | |
| Funeral expenses | <u>500</u> | <u>\$ 4,000</u> |
| FINAL BALANCE | | <u>\$162,874</u> |
| Duty on Final Balance (from Table D) | | <u><u>\$45,530</u></u> |
| Value of Successions | | |
| Final Balance of Estate | | \$162,874 |
| Less to son John | | |
| Gifts | 20,000 ⁽³⁾ | |
| Bequest | <u>25,000</u> | |
| | | \$45,000 |
| Less to daughter Sue | | |
| Bequest | <u>\$25,000</u> | |
| | | <u>\$ 70,000</u> |
| Widow's Succession - the residue | | <u><u>\$ 92,874</u></u> |
| Reliefs from Estate Duty | | |
| Gross Duty Payable | | \$ 45,530 |

Less Widow's Relief

$$\left(\frac{60,000}{162,874} \times 45,530 \right) = \$16,772^{(6)}$$

Less Infant Child's Relief

$$\left(\frac{1,000}{162,874} \times 45,530 \right) = \$ 280^{(7)}$$

Less Gift Duty Credit⁽⁸⁾

Gift 2.1.72

| | | |
|------------------|-----------|--------|
| Duty | 660 | |
| Plus interest at | | |
| 3% | <u>51</u> | \$ 711 |

Gift 3.1.73

| | | |
|------------------|-----------|--------|
| Duty | 660 | |
| Plus interest at | | |
| 3% | <u>30</u> | \$ 690 |

\$ 18,453

NET ESTATE DUTY PAYABLE

\$ 27,077

Notes on the Example:

1. The value of joint family homes are exempt. Mortgages etc. on such homes are not therefore allowable debts (see 2.4 (6) and 2.5)
2. A.B. had sold a half interest in the policy to his wife in 1972, so only half the proceeds belong to his estate.
3. Only gifts made within the three years prior to death are brought back into the estate (see 2.3 (1)).
4. (See E & G.D. Act, 1968; S.25). The value of the annuity is calculated thus:

| | |
|-------------------------------|-----------------------|
| Annuity | 3,000 |
| less Exemption (see 12.4(3)) | <u>2,000</u> |
| Dutiable | <u><u>\$1,000</u></u> |

Go to the Act, Second Schedule, Table B to find the life expectancy of a widow aged 65 years is 14.84 years. Using the factor from the Table, the value of the annuity is thus:

$$\$1,000 \times 10.3027 = \$10,303$$

5. (See E & G.D. Act, 1968; S.14 see also 2.3 (6))

$$\left(\frac{4,500}{5,250} \times 10,000 \right) - 6,500 = \$ 2,071$$

The \$10,000 is the proportion of the interest disposed of to gross proceeds of the policy.

6. The relief is calculated on the value of her succession or \$60,000, whichever is the less.
7. The relief is calculated on the value of the succession or \$1,000 whichever is the less.
8. As the deceased donor's son paid the duty, the duty is not added back into the estate. The estate does however 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 sums and repay them to him as they were his in the first place.

TABLE C
SCALE OF RATES OF GIFT DUTY

| Value of Item "B" in Section 11.5 (3) | | Rate NOTE: "Excess" means excess of the value in complete dollars | |
|---|--------------------------|---|----------|
| Not exceeding \$4,000 Nil | | | |
| Exceeding | Not Exceeding | | |
| \$ 4,000 | \$ 6,000 — | 9 per cent of excess over | \$ 4,000 |
| \$ 6,000 | \$ 8,000 — \$ 180 plus | 11 percent of excess over | \$ 6,000 |
| \$ 8,000 | \$10,000 — \$ 400 plus | 13 percent of excess over | \$ 8,000 |
| \$10,000 | \$12,000 — \$ 660 plus | 15 percent of excess over | \$10,000 |
| \$12,000 | \$14,000 — \$ 960 plus | 17 percent of excess over | \$12,000 |
| \$14,000 | \$16,000 — \$1,300 plus | 19 percent of excess over | \$14,000 |
| \$16,000 | \$18,000 — \$1,680 plus | 21 percent of excess over | \$16,000 |
| \$18,000 | \$20,000 — \$2,100 plus | 23 percent of excess over | \$18,000 |
| \$20,000 | \$22,000 — \$2,560 plus | 25 percent of excess over | \$20,000 |
| \$22,000 | \$24,000 — \$3,060 plus | 27 percent of excess over | \$22,000 |
| \$24,000 | \$28,000 — \$3,600 plus | 23 percent of excess over | \$24,000 |
| \$28,000 | \$32,000 — \$4,520 plus | 25 percent of excess over | \$28,000 |
| \$32,000 | \$36,000 — \$5,520 plus | 27 percent of excess over | \$32,000 |
| \$36,000 | \$40,000 — \$6,600 plus | 29 percent of excess over | \$36,000 |
| \$40,000 | \$44,000 — \$7,760 plus | 31 percent of excess over | \$40,000 |
| \$44,000 | \$48,000 — \$9,000 plus | 33 percent of excess over | \$44,000 |
| \$48,000 | \$52,000 — \$10,320 plus | 35 percent of excess over | \$48,000 |
| \$52,000 | \$56,000 — \$11,720 plus | 37 percent of excess over | \$52,000 |
| \$56,000 | \$60,000 — \$13,200 plus | 39 percent of excess over | \$56,000 |
| \$60,000 | \$64,000 — \$14,760 plus | 31 percent of excess over | \$60,000 |
| Exceeding | \$64,000 | 25 percent of value of gift | |

TABLE D
SCALE OF RATES OF ESTATE DUTY

| Final Balance of Estate | | Rate Note – “Excess” means excess of the final balance in complete dollars | | |
|----------------------------|---------------|---|--------------------|-----------|
| Not Exceeding \$12,000 Nil | | | | |
| Exceeding | Not Exceeding | | | |
| \$ 12,000 | — \$ 14,000 | | 7% of excess over | \$ 12,000 |
| \$ 14,000 | — \$ 16,000 | \$ 140 plus | 8% of excess over | \$ 14,000 |
| \$ 16,000 | — \$ 18,000 | \$ 300 plus | 9% of excess over | \$ 16,000 |
| \$ 18,000 | — \$ 20,000 | \$ 480 plus | 10% of excess over | \$ 18,000 |
| \$ 20,000 | — \$ 22,000 | \$ 680 plus | 11% of excess over | \$ 20,000 |
| \$ 22,000 | — \$ 24,000 | \$ 900 plus | 12% of excess over | \$ 22,000 |
| \$ 24,000 | — \$ 26,000 | \$ 1,140 plus | 13% of excess over | \$ 24,000 |
| \$ 26,000 | — \$ 28,000 | \$ 1,400 plus | 14% of excess over | \$ 28,000 |
| \$ 30,000 | — \$ 32,000 | \$ 1,980 plus | 16% of excess over | \$ 30,000 |
| \$ 32,000 | — \$ 34,000 | \$ 2,300 plus | 17% of excess over | \$ 32,000 |
| \$ 34,000 | — \$ 36,000 | \$ 2,640 plus | 18% of excess over | \$ 34,000 |
| \$ 36,000 | — \$ 38,000 | \$ 3,000 plus | 19% of excess over | \$ 36,000 |
| \$ 38,000 | — \$ 40,000 | \$ 3,380 plus | 20% of excess over | \$ 38,000 |
| \$ 40,000 | — \$ 42,000 | \$ 3,780 plus | 21% of excess over | \$ 40,000 |
| \$ 42,000 | — \$ 44,000 | \$ 4,200 plus | 22% of excess over | \$ 42,000 |
| \$ 44,000 | — \$ 46,000 | \$ 4,640 plus | 23% of excess over | \$ 44,000 |
| \$ 46,000 | — \$ 48,000 | \$ 5,100 plus | 24% of excess over | \$ 46,000 |
| \$ 48,000 | — \$ 50,000 | \$ 5,580 plus | 25% of excess over | \$ 48,000 |
| \$ 50,000 | — \$ 52,000 | \$ 6,080 plus | 26% of excess over | \$ 50,000 |
| \$ 52,000 | — \$ 54,000 | \$ 6,600 plus | 27% of excess over | \$ 52,000 |
| \$ 54,000 | — \$ 56,000 | \$ 7,140 plus | 28% of excess over | \$ 54,000 |
| \$ 56,000 | — \$ 58,000 | \$ 7,700 plus | 29% of excess over | \$ 56,000 |
| \$ 58,000 | — \$ 60,000 | \$ 8,280 plus | 30% of excess over | \$ 58,000 |
| \$ 60,000 | — \$ 70,000 | \$ 8,880 plus | 31% of excess over | \$ 60,000 |
| \$ 70,000 | — \$ 80,000 | \$11,980 plus | 32% of excess over | \$ 70,000 |
| \$ 80,000 | — \$ 90,000 | \$15,180 plus | 33% of excess over | \$ 80,000 |
| \$ 90,000 | — \$100,000 | \$18,480 plus | 34% of excess over | \$ 90,000 |
| \$100,000 | — \$110,000 | \$21,880 plus | 35% of excess over | \$100,000 |
| \$110,000 | — \$120,000 | \$25,380 plus | 36% of excess over | \$110,000 |
| \$120,000 | — \$130,000 | \$28,980 plus | 37% of excess over | \$120,000 |
| \$130,000 | — \$140,000 | \$32,680 plus | 38% of excess over | \$130,000 |
| \$140,000 | — \$150,000 | \$36,480 plus | 39% of excess over | \$140,000 |
| Exceeding | \$150,000 | \$40,380 plus | 40% of excess over | \$150,000 |

3. REFERENCE

E & G.D. Act, 1968. The Estate and Gift Duties Act, 1968, and subsequent amendments.

SECTION 5

New Zealand Superannuation Scheme

(and Alternative Schemes)

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NEW ZEALAND SUPERANNUATION SCHEME (AND ALTERNATIVE SCHEMES)

1. INTRODUCTION

The New Zealand Superannuation Scheme came into being under the New Zealand Superannuation Act, 1974, and will begin operating 1.4.75.

The aim of the Act is to provide all workers in New Zealand with access to a superannuation scheme which meets certain minimum requirements.

Earners do not have to belong to the New Zealand Scheme, but may, if desired, join an available alternative scheme. From 1.4.75 employers must either

1. Join the New Zealand Scheme, or
2. Set up an alternative scheme, (or alter an existing one) to meet at least certain minimum requirements, or
3. Have elements of both (1) and (2) operating to meet different needs of employees.

2. MEMBERSHIP

2.1 Compulsory Membership

The following who do not elect to join an approved alternative scheme, or who do not already belong to such a scheme, **MUST** join the New Zealand Scheme. Those employees

1. Aged 17 - 55 years inclusive as at 1.4.75, and
2. Normally resident in New Zealand, or who work here on contract, on work permits, or during working holidays.

2.2 Optional Membership

Non-employed persons may join if desired, as may for example

1. Self-employed persons
2. Part-time private domestic workers, e.g. housekeepers, gardeners.
3. Employees under 17 years of age and between 55 - 65

years of age at 1.4.75.

3. SELF EMPLOYED PERSONS, SHAREHOLDER EMPLOYEES, ETC.

3.1 Self Employed

1. Not also employees – such persons are not required to join any scheme in respect to their income from self employment (i.e. their “business” income), but they may do so if desired.

Upon joining, there are no specific requirements as to contribution levels, but special tax concessions apply.

2. Also employees – such persons, if they come within the category of persons required to join a scheme, must make contributions in respect of their income from employment.

3.2 Substantial Shareholders

A substantial shareholder who is also an employee of a company need not join a scheme, but may do so if desired.

Upon joining, special tax concessions apply. The company must make at least the minimum contributions also.

See the Taxation Section – (Sec. 4.3 (3A)) for definition of Substantial Shareholder.

3.3 Wife or Husband Employed by the Other

Either is regarded as an employee, and contributions must be made in respect of the earnings derived whether or not the payment has Inland Revenue Department approval, (but see 2.2 (2) above).

3.4 Casual Agricultural Workers

All earnings and taxable allowances are liable for contributions.

4. RATES OF CONTRIBUTIONS

4.1 Earnings Liable for Contributions

Total earnings and allowances from employment which are liable for taxation are in general liable for superannuation contributions.

For example:

1. Salary, wages, holiday and overtime pay.
2. Back pay, gratuities and bonuses.
3. Board, lodging and housing allowances.

But not

1. Lump sum retirement allowances.
2. Annuities etc., in respect of past employment.
3. Allowances normally exempt from income tax.

4.2 Minimum Rates of Contribution

Both employee and employer must make the following minimum contributions as percentages of employee earnings –

| | | | | |
|------|--------|---|---------|-----|
| Year | 1.4.75 | - | 31.3.76 | 1% |
| Year | 1.4.76 | - | 31.3.77 | 2% |
| Year | 1.4.77 | - | 31.3.78 | 2½% |
| Year | 1.4.78 | - | 31.3.79 | 3% |
| Year | 1.4.79 | - | 31.3.80 | 3½% |
| Year | 1.4.80 | - | 31.3.81 | 4% |

Both or either may contribute greater amounts if desired (but note there are limits on the deductibility of contributions by employers for income tax purposes).

If an employee, not required to join, does join a scheme, the employer must make at least the minimum contributions in respect of that employee, except for those employees aged 65 years of age or over.

5. PAYMENT OF CONTRIBUTIONS

5.1 The New Zealand Scheme

Employee contributions should be deducted from pays in a similar manner to the deduction of P.A.Y.E. tax.

Both employee and employer contributions should be paid into the Inland Revenue Department (as collecting agent) as for P.A.Y.E. tax deductions each month.

All contributions in respect of each employee will be credited to that employee's personal account, with the Superannuation Corporation.

5.2 Alternative Schemes

As per arrangements within the scheme.

6. ALTERING EMPLOYMENT

6.1 Changing Employers

1. If a member of the New Zealand Scheme changes employers, that member's total credit will remain in the Scheme.
2. Employees leaving an employer with an alternative scheme must have the total of their contributions and that employer's minimum contributions either
 1. Remain in that scheme until benefits become due, or
 2. Transferred to the New Zealand Scheme, or
 3. Transferred to another alternative scheme.

6.2 Ceasing Employment

Persons who cease paid employment must have their contribution credit remain in their account (as in 6 (2) above) until benefits become due. If they subsequently resume employment, then further contributions will be made.

6.3 Leaving New Zealand

1. New Zealand residents who emigrate may either take their total credit after two years absence, or elect to retain membership of their scheme.
2. Non New Zealand residents may take their credit on departure.

7. INCOME TAX CONCESSIONS

See Income Taxation Section (Sec. 4.3 (3c)).

8. REFERENCES

Staff Superannuation Funds

The Government Actuary

Guide for Employers

Inland Revenue Department

A Message to Employers

New Zealand Superannuation Corporation

The A.M.P. Society were extremely helpful in providing information on alternative schemes and the New Zealand Scheme.

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ACCIDENT COMPENSATION

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THE NEW ZEALAND ACCIDENT COMPENSATION SCHEME

1. SOURCE OF FUNDS

The accident compensation scheme operating in New Zealand came into being under the Accident Compensation Act, 1972, and amendments. The scheme came into force on April 1, 1974 and is being financed from three sources:

1. Earners Scheme: by a levy on employers and self employed persons, from which compensation will be paid to earners who suffer a "work" accident.
2. Motor Vehicle Accident Scheme: by a levy on all registered motor vehicles from which compensation will be paid to all persons injured in motor vehicle accidents.
3. Supplementary Scheme: by appropriations from the Consolidated Revenue Account from which compensation will be paid to non earners who suffer injury from an accident other than a motor vehicle accident.

2. EMPLOYERS LEVY

An employer, whether an individual, a partnership, trust, company or club must pay a levy in respect of each employee. The levy is based on the "leviable earnings" received by each employee in respect of the industrial activity engaged in by the employer. Employees do not contribute to the scheme and levies paid by employers are deductible for income tax purposes.

2.1 Leviable Earnings

These are remunerative payments made to employees, including company directors, and includes wages, salaries, bonuses, commissions, and certain allowances.

2.2 Exceptions and Exemptions

1. Only 80 percent of gross commissions are liable to the levy
2. Share-holder employees are regarded as employees for levy purposes.
3. Remuneration in excess of \$15,600 per employee is exempt

from the levy.

4. Superannuation, pensions, and annuities in respect of past employment are exempt from the levy.

2.3 Industrial Activity

Each employee shall be classified according to the nature of the good or service rendered by the employer. Levy rates vary according to the industrial activity of the employer.

For example:

| | Levy per \$100 earned |
|---|-----------------------|
| Agricultural Contracting: | |
| fencing, sheep dipping, harvesting etc. | \$ 1.40 |
| shearing, etc. | \$.80 |
| scrub cutting, grubbing, burning off, clearing, etc. | \$ 2.20 |
| Aerial Topdressing | \$ 5.00 |
| Farming | \$ 1.40 |
| Fruit Packing | \$.80 |

Notes:

1. An employer engaged in two or more distinct industrial activities should maintain separate employee earnings records with respect to each activity.
2. The earnings of an employee engaged in two or more distinct industrial activities will attract a levy according to the highest rated activity.

2.4 Levy Payments

1. Employers continuously from March 31, 1974.
Return statement of employee earnings for the year ended March 31, 1975, and pay levy by June 30. This payment will provide cover for employees for the 1975/76 income year.
2. Persons who became employers since March 31, 1974.
A provisional statement of expected employee earnings to March 31, 1975 or 1976 should be completed and returned

within one month of becoming an employer. A subsequent "square-up" will be made when the actual earnings for the period are known.

3. SELF EMPLOYED LEVY

This scheme is for a cover year October 1 – September 30, and came into being October 1, 1974. To provide cover for the period from April 1 to September 30, 1974 most self employed persons paid a flat levy of \$3 per month or part month for that period, regardless of actual earnings. From October 1, 1974, levies as set out below will be payable.

3.1 Established, Continuing Self-employed Person, Not Also an Employee.

Such persons will pay a levy on earnings from self-employment.

1. The levy is a flat 1 percent of business earnings payable by November 30 each year. If income is not derived from business, it is not leviable.

2. Business earnings are earnings as calculated for income tax purposes,

but

(a) before any set-off of losses carried forward

(b) excluding income from a business carried on by a person but not for his own benefit e.g. excludes such income as "Trustees Income".

(c) excluding earnings such as:

(i) dividends – unless a share dealer

(ii) interest – unless a money lender

(iii) rents, fines, premiums, etc. derived from land or chattels – unless a hotelier, motelier, motor camp proprietor etc.

(iv) lease or bailment fees from livestock

(v) proceeds from sale of patents, copyrights etc.

(vi) shares or benefits from trusts and partnerships

where the taxpayer does not take an active part in the running of the business from which the income is derived e.g. the income of a “sleeping partner” is excluded.

- (d) the maximum leviable earnings are \$15,600 and the minimum such \$1,000

3.2 Established, Continuing Self Employed Person, also an Employee

1. the same conditions as apply in 3.1 above apply here, but
2. the amount of self employed earnings on which a levy is payable will be difference between his earnings as an employee and \$15,600 i.e.
 - (a) if his employee earnings exceed \$15,600, he will pay no levy on self employed earnings.
 - (b) if the combined earnings are less than \$15,600 he will pay a levy on the full amount of self employed earnings.

Example: Self employed person. Tax Balance date for business June 30. Also an employee and returns employment income to March 31 for income tax purposes.

1. Assessable business income – 30.6.75 \$8,000
 Employee Earnings 1.4.74 – 31.3.75 \$8,000
\$16,000
 Maximum combined leviable earnings \$15,600
 less earnings as an employee \$8,000
 leviable Self Employed Earnings \$7,600
 Self employed levy is then 1% of \$7,600 = \$76
2. Assessable Business Income \$ 600 LOSS
 Substitute minimum leviable earnings \$1,000
 Earnings as employee \$15,000
\$16,000
 Maximum combined leviable earnings \$15,600

| | | |
|----|--------------------------------------|-----------------|
| | less earnings as employee | <u>\$15,000</u> |
| | Leviable Self Employed Earnings | <u>\$ 600</u> |
| 3. | Assessable Business Income | <u>\$ 600</u> |
| | Substitute minimum leviable earnings | <u>\$1,000</u> |
| | Earnings as employee | <u>\$6,000</u> |
| | | <u>\$7,000</u> |
| | Leviable Self Employed Earnings | <u>\$1,000</u> |

3.3 Other

1. A self employed person who commenced business before 1.10.74 but who at that time had not reached his first business balance date paid a flat levy of \$36 by 31.10.74 to provide cover to 30.9.75. Thereafter as for 3.1 (or 3.2) above.
2. A self employed person who commences business on or after 1.10.74 and who reaches his first business balance date before the next ensuing October 1 will pay a levy of \$3 for each whole or part calendar month to the next September 30. The levy is payable within one month of commencing business and provides cover to 30.9.75. Thereafter for 3.1 (or 3.2) above.
3. A self employed person who commences business after 31.10.74 and who has not reached his first business balance date by 1.10.75 will pay levies as follows:
 - (a) \$3 per whole or part calendar month from time of commencing business to 30.9.75. Payable within one month of commencing business.
 - (b) \$36, payable by 31.10.75, to provide cover for the year ended 30.9.76 (i.e. as for 3.3 (1) above).
 - (c) Thereafter as for 3.1 (or 3.2) above.

Example: A self employed person commences business 1.4.75 and his first business balance date is 31.3.76. His leviable business earnings for the first year were \$6,000. Accident Compensation levies are payable as follows:

1. By 30.4.75 – \$18 i.e. \$3 per month or part month

from 1.4.75 – 30.9.75 to provide cover to 30.9.75.

2. By 31.10.75 – \$36 to provide cover for twelve months ending 30.9.76.
3. By 30.11.76 – \$60 i.e. 1% of \$6,000 to provide cover for twelve months ending 30.9.77.

4. MOTOR VEHICLE LEVY

1. A levy on all motor vehicles is payable with the annual licencing fee. The levy is similar to the old third party insurance premium but will be subject to alteration as the Commission sees fit.
2. A levy on every driver, yet to be imposed, but likely to be collected along with the annual driving licence fee and posted in the Act at \$2 per year per driver.

5. SUPPLEMENTARY SCHEME

No levies are payable under this scheme and it will provide cover in such cases as

1. a housewife injured in the home or
2. visitors to New Zealand being injured other than in a motor vehicle accident.

6. BENEFITS

6.1 Loss of Earnings

1. The first week

- (a) If the accident is a “work accident” i.e. occurred at work or while travelling to or from work, the employer concerned pays in full earnings lost during the first week (excluding overtime). The Commission will pay 80 per cent of earnings lost from secondary employment (excluding overtime.)
- (b) If the accident is not a “work accident” (e.g. where an earner is injured on the sports field, or while on holiday) or if the person is self employed, no compensation is payable during the first week.

2. After the first week

Compensation of 80 per cent of earnings lost, or \$300 per week, whichever is the less is payable by the Commission during incapacity to all earners, subject to adjustment for any lighter work obtained at a lower wage.

Such payments are assessable income and P.A.Y.E. tax will be deducted at source.

6.2 Loss of Potential Earnings

There is provision for payment of compensation for loss of potential earnings (e.g. in the case of a young child injured to the extent that future earning capacity is prejudiced.)

6.3 Additional Compensation

1. Lump sums

Up to \$7,000 may be payable for loss or impairment of bodily function, and up to \$10,000 for disfigurement, pain, loss of capacity to enjoy life etc.

2. Other

In addition to the other compensation paid, payment may be made for such things as

- (a) transport costs on day of accident for treatment
- (b) damage to teeth, artificial limbs, spectacles etc.
- (c) some specialist treatment

3. Funeral Expenses

In the case of death from accident, the Commission will pay reasonable funeral expenses.

4. Dependants

A dependant widow will receive half the earnings related compensation due her deceased husband, plus for each of up to three children on additional one-sixth of such compensation.

In addition, lump sums may also be payable of up to \$1,000 to the widow plus up to \$500 for each of up to three depend-

ant children.

6.4 Non Earnings Related Compensation

Injured non-earners will not receive earnings related compensation, but instead payment may be made for such things as

1. medical expenses
2. lump sums (as above)
3. relieving home help
4. funeral expenses

7. REFERENCES

Inland Revenue Department

Notes on Accident Compensation Act 1972 and Amendments.
Public Information Bulletins

Accident Compensation Commission

Guide to Employers

Levies on Employers

Levies on Self Employed

How to Claim

Personal Injury Resulting from Motor Vehicle Accidents.

SECTION 5

GROSS MARGINS

GROSS MARGIN ANALYSIS

— A CRITICAL EVALUATION

G.F. Tate

The farm manager is frequently faced with selecting the most appropriate production possibility from amongst several alternatives. If the alternatives or adjustments to be considered involve no significant changes in the fixed cost structure, then some form of partial budgeting can give a satisfactory guide to the correct decision. Partial budgeting involves giving consideration only to those cost or income items that are directly affected by the proposed alternatives. Where the proposed change does not involve altering the requirements for a particular resource. (e.g. labour), then the costs related to this resource may be regarded as fixed and thus excluded from the analysis without affecting its validity. A partial budget is merely a simplified whole farm budget in which certain fixed considerations are ignored.

In the last decade partial budgeting has been extended in use by the development of gross margins analysis. This system involves only the consideration of the gross contribution made by a particular enterprise in excess of the additional variable costs necessary to operate it. It assumes complete linearity, that is that each additional unit of production is worth as much as and costs as much as each preceding unit. It also assumes that the enterprise being assessed can be technically and financially isolated from other activities, and thus considered independently.

A knowledge of the gross margins of possible enterprises on the farm is a valuable guide for farmers and their advisers when making decisions on the best combination to adopt. Unfortunately, because of the mechanical and conceptual ease of this method of analysis there has been a growing tendency for inappropriate and misleading application. The failure to appreciate the limitations of the technique can lead to faulty decision making. In a simple problem, such as the choice between growing Aotea wheat and Arawa wheat in a particular paddock, the use of gross margins analysis gives a quick and reliable answer. The only considerations are the likely yield and price for each variety together with the additional costs of harvesting where the yield differs. Other aspects such as possible marketing difficulties with Arawa can be considered outside the gross margin framework. Even in this simple example however, and as indeed with any other method of analysis, the relia-

bility with which the critical parameters may be assessed is of great significance to the value of the answer obtained. The critical measures in most considerations are the yield and the price obtained for the product. In general, far too much attention is paid to getting the last detail of cost correct while sweeping a broad brush over the really significant parameters of yield and price.

It is well to be aware that farmers' performance figures are not always reliably recorded and rarely include disaster years. This often means that average yields quoted are the average performance of good years not the average of all years. The significance of the last few bushels of yields to the profitability of an enterprise is generally appreciated. Any discrepancy in this respect is likely to lead to significant errors in the choice of the most profitable alternative. Where a farmer has a well prepared set of farm accounts extending over several seasons, the extraction of performance figures from these is likely to be more reliable than relying on undocumented opinion.

The effect of not accurately establishing yield performance can be illustrated by the hypothetical example of a Canterbury light land farm where severe drought occurs one year in five, resulting in no harvest.

Wheat may yield an average of 3.5 tonnes per hectare over the four good years, but in the fifth dry season nothing. A gross margin analysis calculated on the 3.5 tonnes yield would show a return of about \$280 per hectare. However, on the true crop mean yield over the five years of 2.8 tonnes per hectare the gross margin would be reduced to about \$210 per hectare.

At all times when considering an individual farm situation it is the performance on that farm that is relevant, not the district average or some standard obtained from elsewhere. This means that the farm adviser constructing an alternative management policy on two similar farms may well have a differing gross margin for the same crop based on the individual farmer's past experiences in the area.

Among the problems that can arise with the use of gross margins analysis, the following have all been observed by the writer and are provided here to illustrate the dangers of adopting an over-simplified approach to the consideration of farm management alternatives.

Choice of the Limiting Resource:

Gross margins are customarily expressed in terms of returns per unit of

land area or per head of livestock. In many farm management decisions maximisation of returns to capital may be of greater significance. Occasionally labour is a critical constraint and maximisation of returns to this resource the farm manager's goal. Perhaps the best known example of conflict between returns to land and to capital lies in a consideration between the alternative enterprise of cattle or sheep.

For the purpose of illustration let us assume that the gross margin per ewe equivalent for a ewe flock is \$8. At 15 ewes per hectare the gross margin per hectare would be \$120. For a cattle policy, buying in weaners and selling prime stock, let us assume a gross margin per ewe equivalent of \$9, or at 15 ewes equivalents per hectare \$135. On this basis of gross margin per hectare cattle look more profitable by \$15 per hectare. (\$135 compared with \$120).

For many farmers however, capital or access to it will be the most critical constraint. If a farmer cannot get more capital then looking at a gross margin purely in terms of feed utilisation can give a completely false picture of the most desirable alternative.

Let us assume that a ewe equivalent in sheep costs \$ 9 and a ewe equivalent in cattle costs \$17 (if we assume a weaner steer being the equivalent of 3 ewes this values the weaner at about \$50 per head.) With 15 ewe equivalents per hectare we find the following position:

| | | | |
|--------|--|---|-----------------------|
| Cattle | $\frac{\text{Gross margin per hectare}}{\text{Livestock capital per hectare}}$ | = | $\frac{\$135}{\$255}$ |
|--------|--|---|-----------------------|

i.e. a 53% return to livestock capital

| | | | |
|-------|--|---|-----------------------|
| Sheep | $\frac{\text{Gross margin per hectare}}{\text{Livestock capital per hectare}}$ | = | $\frac{\$120}{\$135}$ |
|-------|--|---|-----------------------|

i.e. an 89% return to livestock capital

Recognising capital as the limiting resource we should conduct our gross margins analysis to establish relative returns to this factor, i.e. to establish the relative gross margin per \$1 invested.

In the above example we find the following:-

| | |
|--------|--|
| Cattle | \$255 invested returns \$135 |
| | i.e. a gross margin return of 53 cents per \$1 invested. |

Sheep \$135 invested returns \$120

i.e. a gross margin return of 89 cents per \$1 invested.

The above illustrates the necessity to decide on any farm what the critical scarce resource is. If the farmer wishes to maximise his return to feed grown and can obtain additional capital cheaply then the absolute return from cattle is going to be higher than for sheep. For example –

| | Cattle | Sheep |
|---------------------------------------|--------|-------|
| Gross margin per hectare | \$135 | \$120 |
| Less interest at 5% on capital | \$ 13 | \$ 7 |
| Invested in livestock - approximately | | |
| Residual margin per hectare | \$122 | \$113 |

If capital is available at 5% then the farmer on a 500 hectare property with the above figures is likely to be better off by \$4500 by running cattle. If however, in the above example capital was only available at 12% then the residual margin per hectare would favour investment in sheep rather than cattle.

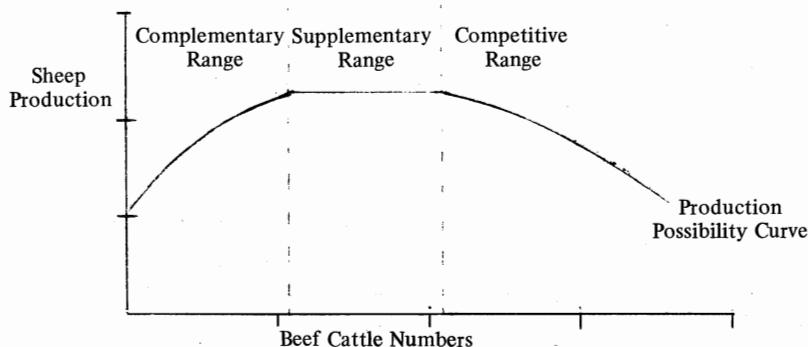
If our farmer has unlimited surplus grass, but only a thousand dollars of capital available to buy livestock then, in the above example, his return to the scarce resource is going to be \$800 if he uses the capital to buy sheep but only \$360 if he used his capital to buy cattle.

Selecting the Correct Rate of Substitution:

In comparing alternative livestock practices on a gross margin basis, the rate of substitution of one animal for another is critical.

On tussock country the proposal to replace some sheep by cattle may require an entirely different rate of substitution than would be the case for a similar proposal relating to a prime lamb farm. For example, on a tussock block at present carrying sheep it may well be that the replacement of some sheep with cattle will initially give a complementary effect resulting not in a substitution but in an improvement in production by the sheep carried as well as additional production by cattle. As total stocking rate is increased there may be reached the stage of fixed production by sheep, but some addition to total production by the extra cattle, i.e. a supplementary effect. This may be due to cattle eating different plants to the sheep.

It may only be at a third or higher stocking rate that the competitive effect between sheep and cattle comes into play and any rate of substitution for gross margin analysis is valid. One a prime lamb farm cattle and sheep will probably be directly competitive from the outset.



A further example where the correct rate of substitution is critical to the problem to be analysed could be seen in considering two alternative enterprises such as the buying of ewe lambs for sale as two tooth ewes and the running of a conventional breeding flock. Common practice is to use the accepted rate of substitution of one hogget being equal to 0.6 breeding ewes. In this example however, there are really three periods of the year to be taken into account when considering the substitution rate in respect to feed supply. Over the winter the hogget must be fed for growth, the ewe requires only maintenance. It may well be that at this period of the year one hogget directly substitutes for one ewe. In spring the breeding ewe with a lamb at foot has a full productive requirement, the hogget has only to maintain itself with some growth. In spring a substitution rate of one ewe for two hoggets may well be applicable. Over the summer season, if good two tooth ewes are to be produced, the hogget must be well fed. The ewe at this time is back to maintenance. One could suggest that over the summer period one ewe may be equal to 0.75 hoggets.

Gross margin analysis for such a problem would require the definition of the period of feed limitation on a particular property and the use then of the appropriate substitution rate. Again it is a matter of accurately defining the scarce resource, i.e. feed, at a particular time of the year, and using the substitution rate appropriate to that time of the year. Because the above stock policy change is likely to have quite complex effects on farm operation, gross margins analysis is unlikely to yield a satisfactory comparison. Partial or full comparative budgeting would be better methods of comparing the two systems.

Gross margins analysis is sometimes used to compare the returns from a paddock used in growing crop or in carrying livestock. The correct substitution rate to be used in deciding the sheep carrying is not the overall farm position, but the contribution that that particular paddock will make to stock carrying

in the feed pinch period, i.e. the time of maximum constraint. For example, if the time of the year which limits increases in carrying capacity is the months of August, September, the correct substitution rate to impose on sheep versus crop is the potential carrying capacity of that paddock in those two months.

It could well be that a farm with an overall carrying capacity of five ewes per acre may be in the position where in August each grass paddock carries seven ewes. Seven ewes then is the substitution rate to be used in comparing the two enterprises, not five.

Complementarity and Supplementarity of Operations:

Complementary and supplementary relationships are important in planning the most profitable programme in mixed arable farming. Because many enterprises require land for widely differing periods of time, simple gross margin analysis may lead to serious errors. For example, a comparison of gross margins on a property farmed with the following rotation could be made:-

Old pasture – choumoellier seed – wheat – specialist white clover –
– wheat – peas – new grass – grass seed – white clover seed – grazing.

The gross margins for each crop might be

| | Gross Revenue per hectare | Direct Costs per hectare | Gross Margin per hectare |
|-------------------------|------------------------------|-----------------------------|-----------------------------|
| Choumoellier seed | \$600 | \$200 | \$400 |
| Wheat | \$360 | \$ 60 | \$300 |
| White Clover Specialist | \$300 | \$130 | \$170 |
| White Clover Pasture | \$200 | \$100 | \$100 |
| Peas | \$370 | \$170 | \$200 |
| Ryegrass Seed | \$250 | \$200 | \$ 50 |
| Grazing ewes | - | - | \$150 |

Looking simply at the calculated gross margins one would say that most of the farm should be in choumoellier seed. The true position however is not so clear-cut. While over a 10 year period the gross margin for choumoellier could be justified, the price and the yields are extremely variable. Interseasonal variation and risk are very high with this crop. A farmer with all his farm in choumoellier might well go bankrupt waiting for the correct combination of

yield and price to give him that bumper year that over a long term gives such a high average gross margin. In addition choumoellier occupies the ground over the period from December to the succeeding January. Because nothing effective can be done with the land before the following crop of wheat is sown in June, land is really tied up for 18 months and the gross margin for the crop, as expressed above, makes no allowance for this time period, difference.

The specialist white clover permits the carrying of say, five ewes per hectare from May to November, increasing profitability by about \$50 per hectare. The increased nitrogen status of the soil following the white clover crop will also increase the subsequent wheat yield. The white clover in pasture permits the carrying of 15 ewes from February to November, increasing profitability by \$150 per hectare. The ryegrass permits ewe grazing from May to October producing an additional \$120 per hectare of gross margin. The peas boost the subsequent yield of ryegrass by 100 kilograms per hectare. Therefore an additional \$20 per hectare profit is earned from the ryegrass crop, as a result of following peas in the rotation.

Consideration of each enterprise merely on a gross margin basis ignoring the effects of the length of time of land use, availability of stock grazing, carry-over of fertility effect and labour requirement can lead to unsound decision making.

With mixed arable farming it is possible to establish the revenue earning expectations of the whole rotation over its time period. This may then be compared on a yearly basis with the revenue earning capacity of alternative rotations. Consider for example any rotation 'A', which we assume yields a total gross margin return of \$420 over its six-year time period. Consider also rotation B, which yields a gross margin return of \$480 over its eight-year time period. Clearly, when the total revenue earned is divided by the number of years involved, rotation A returning \$70 per annum would appear more profitable than rotation B returning \$60 per annum.

By comparing the return from the total rotation, allowance can be made for complementary and supplementary effects. In this way gross margins analysis can provide a guide to the decisionmaker. Unfortunately there are usually many factors in comparing alternative systems that cannot adequately be considered in gross margin analysis. A more detailed technique, such as comparative budgeting, is usually advisable in these circumstances.

The Allocation between the Variable and Fixed Costs:

By definition the gross margin is the value of production minus the variable (or direct) costs associated with the enterprise. These variable costs are those which increase or decrease proportionately to changes in the scale of the enterprise's production. Such things as veterinary fees or animal health remedies are typical variable costs in animal production.

The fixed costs are those that will stay the same no matter what the pattern of production—for example rates, insurances, accounting fees. However, this raises some problems because in one sense all costs are variable—land and equipment can be bought and sold or labour hired and fired.

Very few farm operations can be reliably considered as individual processes. For example, in a mixed livestock cropping economy, typical conceptual problems that can arise in preparing gross margin analysis between enterprises might be—

- (1) To which enterprise should the cost of new grass establishment be charged—to the cropping because it is necessary to restore structure or fertility, or to the livestock that are going to eat it.
- (2) Should the cost of fencing maintenance be a charge against livestock.
- (3) What is the cost of a fallow and where should it be charged.

The difficulty in resolving these sorts of problems reduces the reliance that can be placed on gross margins analysis. The tendency to disregard side effects or to ignore the overall effect of a management change on the property's fixed costs can result in illogical decision making.

Summary

Used for marginal analysis and clearly defined situations in which the results can be interpreted with a good deal of common sense, gross margins analysis provides a quick, easy means to assist in evaluating alternatives. A knowledge of the gross margins of possible enterprises on the farm is an extremely valuable guide for farmers and their advisers when making decisions on the best combination of enterprises.

Where problems are complex, or involve considerations embracing interaction between several enterprises, then the preparation of alternative budgets will give a more reliable guide to the decision-maker. Whatever the tech-

nique of analysis employed, the conclusion will only be as accurate as the initial data on which it was based. The successful application of the analysis will depend on the skill of the farmer or his adviser in recognising the limitations of the technique employed.

GROSS MARGIN ANALYSIS

Farmers with a range of alternative crops and stocking systems have to choose which crops and stock systems they will select. A series of production plans and full budgets of these, whilst indicating the most profitable plan, is time consuming. A preferred approach is to first work out the profitability of each crop and stock system that can be undertaken on the farm, where profitability of each enterprise is measured in terms of the Gross Margin which is the difference between Gross Revenue and Direct Costs. Gross Margins is a short cut method because it ignores fixed costs although these are taken into account later when a better farm plan is budgeted and income and costs for the whole farm estimated

When using the Gross Margin approach to determine a better farm plan, first list the alternative enterprises and estimate gross margins for each, making sure the levels of production are relative to each other, then draw up various rotations taking into account the farmer's preferences and any constraints influenced by say soils, climate, capital. The Gross Margin from each enterprise in the rotation, crops and stock, will be added together and then averaged per hectare per year. The rotation indicating the highest Gross Margin can then be tested by drawing up the whole farm budget to confirm it is a better farm plan.

Example Gross Margins (1/2/75) (Pers. Comm. B.J.P. Ryde)

The rotation used is an example of land use on the medium soils of the College Mixed Cropping Farm e.g.

Pasture — wheat — wheat — white clover — wheat — greenfeed —
peas — ryegrass — white clover — pasture 2 years

(i.e. a 9 year rotation)

1. 1st Wheat Crop: (Kopara ex-old grass)

Programme:

(i) Seed Bed Cultivation

Paddock disced twice in March; ploughed in April;
heavy harrowed, grubbed and heavy harrowed in May;
drilled in late May, with 125 kg/ha superphosphate.

(ii) Weed and Pest Control – nil

(iii) Harvest in January with own header. Grain bulk handled into
own silo and stored on farm until August.

(iv) Fire break ploughed and stubble raked for burning in late
January.

Direct Costs (per hectare)

\$

Seed bed preparation with own machinery

5 hrs @ \$1.50/hr 7.50

Seed 125 kg/ha treated seed @ \$6.70/50 kilos 16.75

Fertiliser: 125 kg/ha @ \$31.10/tonne 3.89

Cartage: @\$3.00/tonne (subsidy off) .40

Heading (own header) ¾ hr @ \$18.00/hr 13.50

(includes direct costs of running header only)

Cartage to silos with own truck 5.52

4.03t @ \$1.37

Raking and Ploughing firebreak

¾ hr @ \$1.50/hr 1.13

Cartage silo to nearest rail (by contract) 11.12

4.03 tonne @ \$2.76/tonne (24 km)

TOTAL DIRECT COSTS \$59.81

Gross Revenue:

Yield: 4.03 tonne/ha (60 bus/ac)

Price: \$91.86 per tonne (f.o.r.) (\$2.50/bus)

Storage Increment to July 31st

\$5.00/tonne

| | |
|---------------------------|----------|
| Payment per tonne | \$96.86 |
| less wheat levy 31c/tonne | |
| 4.03 tonne @ \$96.55 | \$389.10 |

Thus it appears that in this example using own machinery the wheat crop is costing about \$60/ha to grow, returning \$390/ha gross and leaving a Gross Margin of approximately \$330/ha.

Using contract harvesters would cost a minimum extra charge of \$15/hectare thus reducing the gross margin to nearer \$315/ha.

2. 2nd Wheat Crop: (Kopara ex wheat)

Programme

(i) Seed Bed Cultivation

2 grubblings in March - April; another grubbing in May; drilled late May, with 125 kg/ha superphosphate

(ii) Weed and Pest Control

4.2 litres/ha of MCPB in October

(iii) Undersowing

White Clover is sown through drill in August at rate of 3.4 kg/ha, with 125 kg/ha, of reverted super.

(iv) Harvest programme is the same as for the 1st Wheat crop. It is not necessary to bale the straw.

| | |
|--|-----------------|
| Direct Costs (per hectare) | \$ |
| Seed bed preparation (own machinery) | |
| 3 hrs @ \$1.50/hr | 4.50 |
| Seed (same as 1st wheat crop) | 16.75 |
| Fertilizer (same as 1st wheat crop) | 4.29 |
| (Undersowing charged to white clover Gross Margin) | |
| Weed & Pest Control | |
| 4.2 litres/ha MCPB @ \$2.29/litre + | |
| ½ hr @ \$1.50/hr | 10.37 |
| Heading (own header) same as before | 13.50 |
| Cartage: to silo 3.7 tonne @ \$1.37 | 5.07 |
| Silo to nearest rail 3.7 tonne @ \$2.76 | 10.21 |
| TOTAL DIRECT COSTS | \$ 64.69 |

Gross Revenue:

Yield: 3.7 tonnes/ha (55 bus/ac)

Price: Same calculations as first crop

\$96.55/tonne

Revenue 3.7 tonnes @ \$96.55

\$357.24

Here cost of growing 2nd crop still approximately \$65/ha and reduced yield means return down to \$355/ha, leaving a gross margin of \$290/ha with own machinery or \$275/ha using a contract header.

3. White Clover Crop (ex-wheat)

Programme:

- (i) Seed undersown in wheat crop in August.
- (ii) Fertilizer. Paddock receives 250 kg/ha super phosphate in March.
- (iii) Grazing programme. Paddock receives a light grazing in March and is then fairly consistently grazed over the winter, thus helping to spread the straw. Over the spring months August and September the equivalent stocking rate is approximately 5 e.e./ha (2 e.e. /ac)
- (iv) Closing: Paddock is closed from grazing about 7th October, and heavy rolled.
- (v) Weed and Pest Control
If grass weeds are present, then paraquat is applied at 1.4 litres/ha, after closing or alternatively sprayed with carbetamex in August. Bromophos is applied for case bearer control in December if necessary, at rate of .36 kg a.i./ha (2 applications)
- (vi) Harvest Programme

Crop is mowed at end of January – early February, is left for 5 to 6 days and is then headed. The field dressed seed at approximately 330 kg (150lb) per sack is then carted to be machine dressed for sale. Extra sacks are required for double bagging the machine dressed seed.

| Direct Costs: | \$ |
|--|-----------------|
| Undersowing: Seed 3.4 kg/ha @ \$1.50/kg | 5.10 |
| .6 hrs @ \$1.50/hr | .90 |
| Fertilizer: 125 kg/ha reverted super | |
| @ \$30.15/tonne plus cartage \$3/tonne | 4.14 |
| 250 kg/ha super phosphate @ \$29.10/tonne (incl. freight) | 7.28 |
| Heavy rolling .6 hrs @ \$1.50/hr | .90 |
| Weed control 1.4 litres paraquat @ \$6.19/litre + ½ hr @ \$1.50/hr | 9.42 |
| Pest Control: Bromophos 2 applications at .36 kg a.i./ha i.e. \$4.37/ha x 2 | 8.74 |
| Mowing: 1.75 hrs/ha @ \$1.50/hr | 2.63 |
| Heading: 2.5 hrs @ \$18.00 | 45.00 |
| Sacks: 14 sacks @ 15c net (50 kg sacks) | 2.10 |
| Seed Testing: | |
| Purity and Germination @ \$5.12/line | .40 |
| Seed Certification (320lb) 352 kg/ha @ \$1.10/100 kg | 3.87 |
| Consolidated Dressing: Store Handling Charges \$8.27 per 100 kg (of field dressed wgt) | 41.35 |
| Cartage 7.4 sacks/ha @ 21c/sack | 1.55 |
| TOTAL DIRECT COSTS | \$133.38 |

Gross Revenue:

Yield: (450 lbs/ac) 500 kg/ha field dressed with a 30% loss on machine dressing gives (320lbs/ac) 350kg/ha machine dressed yield (i.e. 2 sacks/acre M.D.)

1st Generation Seed

350 kg @ \$0.90/kg \$315.00

In this illustration, gross revenue is \$315/ha with direct costs of \$135/ha leaving a gross margin of \$180/ha. To this should be added some return for the winter spring grazing. From the sheep Gross Margins, with the fat lamb policy typical

of mixed cropping farms, the gross margin of \$7 to \$8 per ewe equivalent can be said to be the return from the consumption of 590 kg of grass dry matter over 12 months.

If one hectare of white clover produces 1500 kg in the winter spring period, then this represents 254% of the annual requirement of one ewe.

Thus the return to be added to the above is:

$\$7.50 \times 2.54 = \19.05 which brings the total white clover margin to \$200/ha.

4. 3rd Wheat Crop (ex white clover)

Programme:

Following the white clover harvest, the tailings are fed to sheep and the paddock cleaned up prior to cultivation for wheat.

The cultivation programme follows as for the wheat crop ex old grass and the only alteration to the gross margin analysis is the inclusion of weed control.

Direct Costs (per hectare):

As for 1st Wheat Crop \$60/ha
plus M.C.P.A. @ 3.5 litres/ha @ \$1.80/litre is \$6.30
thus total direct costs = \$67/ha

Gross Revenue:

Yield: as for 2nd crop
3.7 tonnes/ha (55 bus/ac)
@ \$96.55 \$357.24
Gross Margin thus \$290/ha with own machinery

5. Greenfeed Oats (ex wheat):

Programme:

(i) Seed bed preparation

Following the stubble burn off the paddock receives three grubblings during February and crop is drilled at end of February.

(ii) Sowing: Amuri Oats are drilled at rate of 90 kg/ha with 250 kg/ha of nitrogen super.

(iii) Grazing: Paddock is grazed during June and July.

Direct Costs

\$

Seed bed preparation (own machinery)

2½ hrs/ha @ \$1.50/hr 3.75

Seed 90 kg @ \$6.30/50 kg 11.34

Fertilizer 250 kg nitrogen super @ \$72.00/tonne 18.00
(cartage included)

TOTAL DIRECT COSTS \$33.09

Gross Revenue

The revenue is measured in terms of the feed available for sheep grazing, the worth varying with various sheep policies.

Again using the 2 yr fat lamb flock system with an \$7.50 gross margin per ewe equivalent for a feed consumption of 590 kg of dry matter then one hectare of greenfeed producing an estimated 3500 kg/ha would support the annual equivalent of 6 ee per hectare.

Thus the revenue contribution is:

5.9 e.e. x \$7.50 = \$44.25 (say) \$44.00

Gross Margin then (\$44 – \$34)= \$10/ha

6. Field Peas (Blue Rondo) ex greenfeed

Programme:

(i) Seed bed cultivation

Paddock disced twice at end of July and then ploughed heavy harrowed, rolled and drilled on the rolling, at end of August.

(ii) Sowing

Rate of sowing 250 kg/ha (4 bus/ac) with 250 kg/ha of molybdate super

(iii) Weed and Pest Control

The paddock would be sprayed for weed control in October with 5.6 litres/ha of M.C.P.B.

(iv) Harvesting

The crop is direct headed in February into sacks and is carted from the paddock to merchants store for dressing and sale. The pea straw is raked and baled and sold in the paddock.

Direct Costs:

| | |
|--|----------|
| Seed Bed Preparation | \$ |
| 4 hrs/ha @ \$1.50/hr | 6.00 |
| Seed: 250 kg/ha Blue Rondo @ \$8.55/50 kilos | 42.75 |
| (Contract price includes treating and sacks) | |
| Fertilizer 250 kg/ha molybdate super @ \$36.05/tonne | 9.01 |
| Weed Control 5.6 litres/ha M.C.P.B. @ \$2.29/litre | |
| plus ½ hr/ha @ \$1.50/hr | 13.57 |
| Harvesting 1.75 hrs/ha @ \$18.00/hr | 31.50 |
| Sacks (40 bus/ac @ 2½ bus/sack) 54 sacks/ha @ 15c nett | 8.10 |
| Cartage 2.69 tonnes or 40 sacks @ \$0.22/sack | 8.80 |
| Consolidated Dressing & Store Handling | |
| \$1.43/100 kg x 26.9 | 38.47 |
| Raking pea straw (own machinery) | |
| .5 hrs/ha @ \$1.50/hr | .75 |
| Baling pea straw (contract) | |
| (35 bales/ac) 86 bales/ha @ 20c/bale | 17.20 |
| TOTAL DIRECT COSTS | \$176.15 |

Gross Revenue

| | |
|-------------------------------------|----------|
| Yield: (40 bus/ac = 2.69 tonnes/ha) | |
| Price: Contract \$130/tonne | |
| Income: 2.69 x \$130 | \$349.70 |
| Pea straw 86 bales @ 30c per bale | 25.80 |
| TOTAL | \$375.50 |

Thus cost/ha approximates \$175 and gross revenue is in vicinity of \$375/ha in the example, leaving a gross margin of approximately \$200/ha.

7. New Grass for Ariki Seed (ex peas)

Programme:

Following the pea harvest in February the paddock receives two grubblings and the lime is worked into the soil. To sustain a rotation of this nature the pH should be brought up to 6.2 at this stage which means 2.47 tonnes/ha (1 ton/ac) if pH following peas was about 5.7. Cultivation follows programme of grub-harrow and roll, in sequence three times to achieve effective weed control and then new grass is drilled with a mixture of 22.4 kg/ha Ariki ryegrass (1 bus/ac) and 3.4 kg/ha white clover (3 lb/ac) sown with 250 kg/ha of super phosphate.

Grazing: This new grass is given a light first grazing in May and is lightly grazed over the winter to allow light into the clover seedlings. Then although the paddock is not available for the whole spring period, the equivalent spring grazing rate is 6 e.e./ha (2.5/ac)

The paddock is closed from grazing in the middle of September and at the end of September receives either 125 kg/ha of urea or 250 kg/ha of sulphate of ammonia.

Harvesting: In early January the crop is mown and left for 5 - 6 days before being headed, 2 rows into one.

The field dressed seed is then carted in sacks to the merchant for machine dressing and sale.

The ryegrass straw is raked and baled and sold in the paddock, the yield being approximately (40 bales/ac) 100 bales/ha.

| Direct Costs (per ha) | \$ |
|--|-----------------|
| Seed Bed Preparation | |
| 6½ hrs/ha @ \$1.50/hr | 9.75 |
| Seed 22.4 kg/ha Ariki ryegrass @ \$0.60/kg | 13.45 |
| 3.4 kg/ha white clover @ \$1.50/kg | 5.10 |
| Fertilizer: Lime 2.47 tonnes/ha on the ground @ \$8.60 per tonne | |
| (includes cartage & spreading) | 21.25 |
| 250 kg/ha super @ \$33.10/tonne | 8.58 |
| 250 kg/ha sulphate of ammonia @ \$155.00/tonne | 38.75 |
| Harvesting: Mowing 1.5 hrs/ha @ \$1.50/hr | 2.25 |
| Heading 2.25 hrs/ha @ \$18.00/hr | 40.50 |
| Sacks 7.5 sacks @ 18c x 2 | 2.70 |
| Cartage 7.5 sacks @ 17.5c | 1.31 |
| Seed Certification | |
| 55c per 100 kg (MD yield) (660 kg/ha) | 3.63 |
| Seed Testing | |
| Purity and Germination @ \$5.12/line | .40 |
| Consolidated Dressing and Store Handling Charge | |
| \$2.98 per 100 kg (field dressed wgt) 880 kg | 26.22 |
| Separating white clover and ryegrass | |
| 7.5 sacks @ .45c/sack | 3.38 |
| Raking ryegrass straw (own machinery) | |
| .3 hrs/ha @ \$1.50/hr | .50 |
| Baling ryegrass straw (contract) | |
| (40 bales/ac) 100 bales/ha @ 20c/bale | 20.00 |
| TOTAL DIRECT COSTS | \$197.77 |

Gross Revenue

Yield: Field dressed 900 kg/ha approximately (40 bus/ac)

Loss on machine dressing close to 25%

Thus machine dressed yield 675 kg/ha (30bus/ac)

Price: 1st Generation Ariki at 20c/kg

Income: 675 kg @ 20c \$135.00

Ryegrass straw

 100 bales/ha sold in paddock @ 40c/bale 40.00

Gross Revenue \$175.00

This illustration suggests gross revenue of \$170 to \$180/ha with direct costs of approximately \$200/ha leaves a gross margin deficit of \$20 to \$30/ha. Some recognition in terms of income should be attributed to the grazing provided by the paddock during the winter spring period.

With an estimated feed production of 220 kg/ha over the grazing period, representing an annual grazing equivalent of 3.7 ewe equivalents then the gross margin contribution is

$$3.7 \times \$7.50 = \$27.75 \text{ which covers the deficit.}$$

Without the liming charge, the gross margin would be about \$25/ha.

8. 2nd Year of New Grass For White Clover Seed

Programme:

Following the ryegrass harvest the paddock is grazed consistently until being closed in early October (1st week). The autumn fertilizer application is 250 kg/ha of straight super phosphate. The programme is virtually identical to the earlier white clover crop (3), except no paraquat will be used and there will be more likelihood of a case bearer problem.

| Direct Costs | \$ |
|--|----------------|
| Fertiliser 250 kg/ha @ \$29.00/tonne | 7.25 |
| Heavy rolling .6 hrs @ \$1.50/hr | .90 |
| Pest Control. Bromophos (case bearer control) | 9.00 |
| Mowing, Heading (as before) | 47.63 |
| Seed Testing and sacks | .80 |
| Seed Certification (225 kg/ha) | |
| @ \$1.10/100 kg | 2.48 |
| Cartage 5 sacks/ha @ 19c | .95 |
| Consolidated Dressing & Store Handling Charges | |
| \$8.27/100 kg (field dressed wgt) i.e. 340 kg/ha | 28.12 |
| TOTAL DIRECT COSTS | \$97.13 |

Gross Revenue

Yield: Field dressed 340 kg/ha (2 sacks/ac) with 30% loss on machine dressing gives 225 kg/ha of machine dressed seed.

225 kg @ \$0.90/kg \$202.50

Thus with gross revenue of approximately \$200/ha and direct costs of \$100/ha the gross margin is approximately \$100/ha.

Again the grazing contribution should be added to this. The estimated feed produced over the grazing period is 2700 kg/ha or an annual grazing equivalent of 4.6 ewes equivalents, which means a gross margin contribution of:

$$4.6 \times \$7.50 = \$34.50$$

bringing the white clover gross margin to \$135/ha.

9. Pasture (2 years grazing)

In accessing the gross margin contribution of pasture, the revenue earned is measured by the stocking rate per ha times the ewe equivalent gross margin. The estimated utilised feed is 8250 kg/ha D.M. which at 590 kg D.M. per ewe means a stocking rate of 14 e.e./ha.

At \$7.50 per e.e. the gross revenue becomes $14 \times \$7.50 = \105.00

Direct Costs:

| | |
|---|----------------|
| Fertiliser: Autumn application of 250 kg/ha | \$ |
| of super phosphate @ \$29.00/tonne | 7.25 |
| Haymaking: | |
| Mowing and raking @ \$12.50/ha x 0.2 | 2.50 |
| Baling (55 bales/ac) 140 bales/ha @ 20c x 0.2 | 5.60 |
| Cartage 140 bales @ 12c x 0.2 | 3.36 |
| TOTAL DIRECT COSTS | \$18.71 |

Thus with gross revenue of \$105/ha and direct costs of \$20/ha the gross margin is \$85/ha for pasture.

Regarding the haymaking charges, the cost has been assessed as that of providing the 14 e.e./ha with 2 bales per ewe for wintering. i.e. 28 bales/ha required which is 20% of the normal hay crop of 140 bales/ha.

Summary:

The gross margin per hectare has been assessed for each crop in the rotation given one set of parameters. Certain anomalies exist such as the liming charge in the Ariki ryegrass direct costs which in actual fact should be shared by each crop. Similarly the seed and cultivation charge for the ryegrass crop should be apportioned over the pasture years for a more accurate picture of the individual crop's contribution. Given that such anomalies exist a summary of the gross margins for the chosen rotation is presented:

| Year | Crop | \$ Gross Margin/ha |
|------|---|--------------------|
| 1 | Wheat | 315 |
| 2 | Wheat | 290 |
| 3 | White Clover (sp.) | 200 |
| 4 | Wheat | 290 |
| 5 | Greenfeed Oats (\$10) Field Peas (\$200) | 210 |
| 6 | Ariki ryegrass | — |
| 7 | White Clover | 135 |
| 8 | Pasture | 85 |
| 9 | Pasture | 85 |

Average annual gross margin thus \$179/ha. Following this procedure and comparing various rotations, a best rotation can be established, which then enables the formulation of a better farm plan.

The above analysis can be carried a stage further to the annual budget where fixed costs are then deducted from the gross margin total for the farm.

An illustration of the effect of varying a critical parameter, in this case price, is given below:-

| Crop or Enterprise | Price | Gross Margin \$/ha |
|----------------------------|--------------|--------------------|
| Wheat | \$70/tonne | \$250 |
| (4.0t/ha Kopara) | \$90/tonne* | \$330* |
| | \$110/tonne | \$410 |
| Barley | | |
| (4.5 tonnes/ha) | \$ 75/tonne | \$245 |
| | \$ 93/tonne* | \$325 |
| | \$105/tonne | \$380 |
| Field Peas | | |
| (2.7 tonnes/ha Rondos) | \$100/tonne | \$100 |
| | \$130/tonne* | \$200* |
| | \$150/tonne | \$330 |
| Vining Peas | | |
| (3.9 tonne at 101 reading) | \$65/tonne | \$180 |
| | \$100/tonne* | \$300* |
| White Clover (sp.) | \$0.75/kg | \$130 |
| (350 kg/ha M.D.) | \$0.90/kg* | \$180* |
| | \$1.40/kg | \$365 |
| Ariki Ryegrass | | |
| (1st yr pasture | \$0.20/kg* | \$0* |
| 675 kg/ha M.D.) | \$0.50/kg | \$200 |
| | \$0.70/kg | \$300 |
| Cocksfoot | | |
| (340 kg/ha M.D.) | \$0.75/kg | \$100 |
| | \$1.00/kg | \$190 |
| | \$1.30/kg* | \$290* |
| Pasture (Sheep Grazing) | | |
| 14 ee/ha | \$7.50/ee* | \$ 85* |
| | \$10.00/ee | \$120 |
| | \$12.50ee | \$155 |

(NOTE: * Marks current price and gross margin January 1975.)

OTHER CROPS

Selected examples from Miss A.M. Mulholland's gross margin analysis (1973) are reproduced here using current costs and prices.

1. Vining Peas

| | |
|---|----------|
| Gross Revenue (per ha) | \$ |
| Ave. tendermeter reading 101 | |
| 3.92 tonne @ \$97.27 | 381.30 |
| Direct Costs | |
| Cultivation 7.5 hrs @ \$1.50/hr | 11.25 |
| Seed 270 kg @ \$8.00 per 50 kilos | 43.20 |
| Fertiliser 250 kg/ha rev. super @ \$33.15 | 8.28 |
| Spraying M.C.P.B. 5.6 litres/ha | |
| @ \$2.29/litre + ½ hr/ha @ \$1.50/hr | 13.57 |
| TOTAL DIRECT COSTS | \$ 76.30 |
| GROSS MARGIN | \$305.00 |

2. Barley (Malting)

| | |
|---|----------|
| Gross Revenue (per ha) | \$ |
| 3.3 tonnes @ \$93.00/tonne | 306.90 |
| Direct Costs | |
| Cultivation 6 hrs @ \$1.50/ha | 9.00 |
| Seed 120 kg @ \$5/50 kilos | 12.00 |
| Fertiliser 190 kg @ \$34.10 (super) | 6.48 |
| Spray M.C.P.A. 3 litres/ha @ \$1.80/litre | |
| plus ½ hr @ \$1.50/hr | 6.15 |
| Heading 1¼ hrs @ \$18.00/hr | 22.50 |
| Sacks 66 @ 15c nett | 9.95 |
| Cartage 66 sacks @ 23c | 15.18 |
| Firebreak ¾ hr @ \$1.50/hr | 1.13 |
| TOTAL DIRECTION COSTS | \$ 82.39 |
| GROSS MARGIN | \$224.51 |

3. Choumollier Seed

| | |
|--|-----------------|
| Gross Revenue (per ha) | \$ |
| 670 kg F.D. yielding 560 kg M.D. @ \$1.10/kg | 616.00 |
| Direct Costs | |
| Cultivation 12.5 hrs @ \$1.50/hr | 18.75 |
| Seed 7 kg @ \$4.00 | 28.00 |
| Fertilizer 375 kg/ha serpentine super @ \$33.15/tonne | 12.43 |
| Windrowing | 9.00 |
| Heading 2.5 hr @ \$18.00 | 45.00 |
| Sacks 12 @ 15c | 1.85 |
| Cartage 12 @ 32c | 3.84 |
| Consolidated dressing and store — handling charges 670 kg @ \$9.00/100 kg | 60.30 |
| TOTAL DIRECT COSTS | \$179.17 |
| GROSS MARGIN | \$436.83 |

4. Cocksfoot Seed

| | |
|--|-----------------|
| Gross Revenue (per ha) | \$ |
| 450 kg F.D. yields 340 kg/ha M.D. @ \$1.30/kg | 442.00 |
| Direct Costs | |
| Average Renewal | 10.00 |
| Nitrogen 375 kg/ha s/a @ \$146.15/tonne | 54.81 |
| Windrowing @ \$9.90/ha | 9.90 |
| Heading 1.25 hrs @ \$18.00/hr | 22.50 |
| Sacks 17 @ 15c | 2.55 |
| Cartage 17 @ 32c | 5.44 |
| Spreading nitrogen 1.25 hrs @ \$4.00/hr | 5.00 |
| Consolidated handling charge 450 kg @ \$9.00 100 kg | 40.50 |
| Certification \$1.10/100 kg M.D. | 3.74 |
| TOTAL DIRECT COSTS | \$154.44 |
| GROSS MARGIN | \$287.56 |

5. Lucerne (per ha)

| | |
|--|-------------|
| Establishment Cost | \$ |
| Cultivation 14 hrs @ \$1.50 | 21.00 |
| Seed 12 kg/ha @ \$3.50/kg | 42.00 |
| Lime 2.5 tonne @ \$8.60/tonne on ground | 18.92 |
| Fertilizer 250 kg/ha reverted super @ \$33.15/t | 8.29 |
| TOTAL | \$ 90.21 |
| Estimated life of stand 7 years | |
| ∴ Annual establishment cost | 12.89 |
| Maintenance Cost (annually) | |
| Fertiliser 250 kg lucerne mix @ \$50.00/t (spreading, cartage and subsidies included) | |
| TOTAL | \$ 12.50 |
| Annual charge of establishment and maintenance thus \$12.89 + \$12.50 = \$25.39/ha | |
| Haymaking Charges | |
| Estimated Yield 3 cuts of 100 bales/ha each thus 300 bales/ha | |
| Direct Costs (contract baling and carting) | |
| Mowing @ \$9.90/ha and raking \$5.60/ha thus \$15.50/ha per cut | |
| 3 cuts @ \$15.50 | 46.50 |
| Baling 300 bales @ 20c | 60.00 |
| Cartage 300 bales @ 13c | 39.00 |
| Annual charge (est. and maintenance) | 25.39 |
| TOTAL DIRECT COSTS | \$170.89 OR |
| Cents per bale | .57c |
| Gross Revenue | |
| 300 bales @ 70c | 210.00 |
| Note: Excluding storage and insurance | |
| GROSS MARGIN | \$ 40.00 |

| 6. Potatoes (Ilam Handy) (1974) | | \$ | \$ |
|--|----------------------|--------|------------------|
| 5.02 tonnes table potatoes @ | 39.37 | 197.64 | |
| 10.04 tonnes seed potatoes (112 - 170 gms) @ | 59.05 | 592.86 | |
| 12.55 tonnes seed potatoes (57 - 113 gms) @ | 63.98 | 802.94 | |
| 1.26 tonnes table potatoes (28 - 57 gms) @ | 68.90 | 86.81 | |
| 1.26 tonnes waste | | - | |
| 30.13 | Gross Revenue | | \$1685.27 |
| Direct Costs | | | \$ |
| Cultivation — 9.88 hours @ \$0.75 per hour | | 7.41 | |
| Seed — 1.85 tonnes @ \$59.05 per tonne | | 109.24 | |
| 1.85 tonnes @ \$63.98 per tonne | | 118.36 | |
| Half (i.e. 22 bags) cut & dipped | | .67 | |
| Fertilizer — 0.62 tonne bagged potato fertilizer | | 19.27 | |
| — Cartage | | 1.23 | |
| Weed & Pest Control — Disystox | 13.66 | 13.66 | |
| — Aerial spray Metasystox | | 19.77 | |
| Roguing | | 12.36 | |
| Haulm Destruction — Reglone | | 7.86 | |
| Sacks — 371 sacks @ \$0.36 | 133.56 | 133.56 | |
| Digging — 2.5 hours @ \$0.75 | | 1.85 | |
| Picking — 371 sacks @ \$0.30 | | 111.30 | |
| Grading — 371 sacks @ \$0.35 | | 129.85 | |
| Cartage to rail — 371 sacks @ \$0.15 | | 55.65 | |
| Levy — 5.02 tonnes @ \$1.52 | | 7.63 | |
| Certification — \$7.41 per ha | | 7.41 | |
| Total Direct Costs | | | \$757.08 |
| GROSS MARGIN | | | \$928.19 |

SHEEP GROSS MARGINS – B.A. Brook (1/2/75)

- A. The example gross margin here is for a 2 year flock system, buying 2 year ewes annually and all going to fat lamb sire. Corriedale ewes mated to Dorset Down rams.

Production Parameters:

110% lambing, selling 105%, and 5% withheld for home killing, 10% of 1st year ewes culled. Death rate 5%. Ewes clip 4 kg per head. Lambs not shorn.

| | |
|---|---------|
| Gross Revenue (Per ewe) | \$ |
| Lamb sales: 105 lambs @ \$6.90 (lamb price 13 kg @ 37c/kg plus .75 kg woolpull @ \$1.09 plus Govt. grant \$1.00/head) | 7.25 |
| Cull ewe sales: .462 ewes @ \$2.83 (cull ewe 22 kg @ 10c/kg plus .5 kg woolpull @ \$0.63) | 1.31 |
| Wool sale: 3.94 kg @ .90c nett/kg wool yield .98 sheep @ 4 gk allowing for deaths. | 3.55 |
| GROSS REVENUE | \$12.11 |

Direct Costs

| | |
|---|------|
| Replacement purchase .54 ewes @ \$5.00 | 2.70 |
| Shearing (shearers only) .96 sheep @ \$25/100 | .25 |
| Tup crutch .46 sheep @ \$7.50/100 | .04 |
| Main crutching .99 sheep @ \$10/100 | .10 |
| Drenching Ewes receive two drenches, one pre- tupping and one pre-lambing: 2 drenches @ 7c/dose for .99 sheep | .14 |
| Lambs 50% of lambs 1 drench and 30% 2 drenches lamb drench @ 5c/dose .4 x 7c | .03 |
| Vaccination: triple vaccine. 98 @ 6c/sheep | .06 |
| Eartags, footroot and docking | .08 |
| Dipping: Allowing for purchased ewes having been dipped, .46 sheep @ 10c/sheep | .05 |
| Cost of ram (2 per 100) 4 year life .005 @ \$40/ram | .20 |

| | |
|---|-----|
| Woolshed expenses including, woolpacks, twine, glue, emery paper and shearing plant expenses – when all tallied are very close to 1.5c/kilo | .06 |
| Cartage: Say cull ewe to works .46 @ 22c | .10 |
| Bought in ewe ex North Canterbury .54 @ 49c | .26 |
| Lambs to works 1.05 @ 17c | .18 |
| Wool 3.94 kg @ .6c/kg (all cartage over 24 km except ewes purchased 80 km) | |

TOTAL DIRECT COSTS \$ 4.28

GROSS MARGIN PER EWE \$ 7.83

In summary then with revenue of approximately \$12 per ewe and expenses of \$5 per ewe, the gross margin is in the vicinity of \$7 to \$8 per ewe in the fat lamb 2 year flock system. It is interesting to note that direct costs per ewe excluding the replacement cost, is approximately \$1.60/ewe.

The above gross margin of \$7 to \$8 can also be regarded as the gross margin per ewe equivalent.

- B. Typical North Canterbury flock policy of selling genuine 5 year olds and breeding own replacements. Ewes on hand for 4 lambings.

Total flock to Corriedale ram. Culling hoggets at 2 tooth stage, being shorn as hoggets and not as lambs. 50% of wether lambs sold fat to works and 50% sold as stores.

Production Parameters:

Lambing 93%, deaths 5% and culls 5%. Ewes clip 4 kg per head.
Hoggets also clip 4 kg per head.

| | |
|--|------|
| Gross Revenue (per ewe) | \$ |
| Lamb sales: .23 lambs @ \$6.50 | 1.50 |
| Store lambs: .23 lambs @ \$4.50 | 1.04 |
| (fat lamb price 12.5 kg @ 36c plus \$1.00 pelt plus \$1.00 grant) | |
| Cull ewe sales: Cull 2 tooths .15 @ \$8.00 | 1.20 |
| 5 year olds in yards .16 @ \$4.50 | .72 |
| Cull ewes to works .08 @ \$2.83 | .23 |

| | |
|----------------------------------|----------------|
| Wool sale: .98 of ewe @ 4 kg/ewe | |
| i.e. 3.9 kg @ .90c nett/kg | 3.51 |
| .45 ewe hoggets @ 4 kg/hogget | |
| 1.8 kg @ 90c nett/kg | 1.62 |
| GROSS REVENUE | \$ 9.82 |

Direct Costs

| | |
|--|----------------|
| Shearing .96 ewes @ \$26/100 | .25 |
| .45 ewe hgts @ \$25/100 | .12 |
| Tup crutch .99 ewes @ \$7.50/100 | .07 |
| Main crutching .99 ewes @ \$10.00/100 | .10 |
| Drenching: Ewes receive 2 drenches as in previous example | .14 |
| Lambs receive three drenches .66 @ 15c | .10 |
| Vaccination: Triple vaccine 1.44 @ 6c/sheep (lambs also) | .09 |
| Eartags, docking & footrot | .06 |
| Dipping 1 ewe @ 10c plus .67 lambs plus .44 hoggets, @ 9c | .20 |
| Cost of ram (2 per 100, 4 year life) .005 @ \$70 | .35 |
| Woolshed expenses incl. woolpacks, twine, glue, emery papers and shearing plant expenses | |
| 5.7 kg @ 1.5c | .09 |
| Cartage: 2 tooths & 5 year olds to yards .31 @ 27c | .08 |
| Cull ewes to works .08 @ 56c | .05 |
| Fat lambs to works .21 @ 39c | .08 |
| Store lambs to yards .21 @ 34c | .07 |
| Wool 5.7 kg @ 1.3c/kg | .07 |
| (Mileages from North Canterbury @ 100 km) | |
| Stock selling charges. Yard fees 8c/sheep (.52 x 9c) | .05 |
| Trucking fee 1c/sheep inward; Commission 3.5% of \$5.51 | .19 |
| TOTAL DIRECT COSTS | \$ 2.16 |
| GROSS MARGIN | \$ 7.66 |

This gross margin is for a ewe plus replacement and thus to compare it on a gross margin per ewe equivalent basis we must divide the \$7.66 by the 1.3 ewe equivalents which results in Gross Margin/e.e. of \$5.89.

In summary then for the two sheep policies the gross margin per ewe equivalent at \$5.90 approximately for the breeding own replacements in North Canterbury is \$2 less than the \$7 to \$8 gross margin per ewe equivalent on the plains fat lamb policy. It is worth noting that if we exclude the cost of replacement purchase in the fat lamb flock, the costs per ewe equivalent are in the vicinity of \$1.50 to \$1.80.

The factors which will have the greatest effect on the above gross margins are:

- a. Lambing percentage
- b. Wool clip per head
- c. Lamb sale price
- d. Cull ewe prices
- e. Wool price

It is stressed that the example gross margins use one set of price and production parameters and when used in practice some account must be taken of likely variations to give a range of expectations.

It is interesting to note the comparison with last years figures.

GROSS MARGIN PER EWE EQUIVALENT:

| | 1973/74 | 1974/75 | Change |
|------------------------|---------|---------|----------|
| Fat Lamb | \$10.40 | \$ 7.80 | -\$ 2.60 |
| Breed own replacements | \$12.20 | \$ 5.90 | -\$ 6.30 |

The fat lamb producer is able to work on a margin for purchase and sale of ewes whereas the store sheep farmer has no such margin available.

In fact the drop in return per ewe equivalent for the North Canterbury farmer from last year is greater than this years actual return.

PIG PRODUCTION - FINANCIAL (M.J.M. Hanley)

Income: Pig prices normally revolve around the schedules set by processing companies buying pork for bacon, ham, and smallgoods production. Around 60% of pork is used for processing.

The price level is determined by the supply and demand situation in New Zealand because of limited export opportunity at an economic return. Consequently the farmer has little influence on the basic price structure. Pig meat schedules however normally carry differential premiums for quality, based on grading, and for preferred weight ranges over both of which the producer does have control. Many companies operate volume premiums which benefit larger producers. Below is set out a typical schedule of prices for Canterbury.

1) Baconers

CANTERBURY FROZEN MEAT COMPANY LIMITED

Pig Schedule

On Hooks South Island

Effective as from 18th March, 1974 (Current at December, 1974).

PAYMENT ON HOT CARCASS WEIGHT LESS 10% DEDUCTION

| Hot Weight (kg) | Paid Weight | | Cents per kg |
|--|-------------|---------------|--------------|
| 50 — 60 | 45 — 54 | Prime | 105 |
| | | Choice | 100 |
| | | Standard | 94 |
| | | Mutilated | 86 |
| 60.5 — 65 | | PAID AS 54 kg | |
| 65.5 — 75 | 59 — 67.5 | Prime | 73 |
| | | Choice | 68 |
| | | Standard | 62 |
| | | Mutilated | 57 |
| MANUFACTURING (Choppers & Boars and all pigs over 75 kg) | | All Weights | 38 |
| Condemned Carcasses: | | NO VALUE | |
| Condemned Heads & Parts: | | NO VALUE | |

All above prices delivered to Belfast Works.

Subject to deduction of N.Z. Pig Council Levy: 50 cents per pig.

2) Porkers

As at December 1974, the schedule price for porkers from one Company was as follows:

| Hot Carcass Weight lb | Weight (kg) | Schedule: cents/lb Prime and Choice | Standard | (Cents/kg) Prime And Choice | Std. |
|--------------------------|----------------|---|----------|-----------------------------------|------|
| Less than 90 | less than 40 | 53 | 43 | 117 | 95 |
| 91 – 100 | 41 – 45 | 52 | 42 | 115 | 93 |

All pigs will be paid out on 'Hot Weight'.

Current schedules of pig meat prices are normally available from Bacon companies.

Pigs may be marketed at five stages:

1. Weaners and stores 12kg – 30 kg liveweight.
2. Pork – fresh meat market 18kg – 45kg dead weight.
3. Pork – for processing 45kg – 80kg dead weight.
4. Choppers – usually cull breeding stock 80kg + dead weight.
5. Breeding stock – sows and boars.

The majority of slaughter weight pigs are sold 'on hooks' with the lighter weight pork for fresh meat commanding a premium above schedules to compensate for higher per kilogram costs.

Most weaners and stores are sold between farmers by private contract with prices based on the schedules for slaughter pigs, breeding stock are marketed similarly with premiums ruling for stock with a Performance Testing Background.

A limited number of all classes of stock are sold at auction through saleyards, and a range of prices is usually published weekly in local newspapers.

Expenditure. Major expenditure items are, feed, labour, sundry farm costs, and standing charges.

Feed is by far the biggest item of expenditure on pig units, the 'at trough' cost of feed will make up some 75% of all production costs. Major sundry farm costs are normally repairs and maintenance, fuel and power, veterinary expenses, marketing expenses, vehicle expenses, and miscellaneous minor items. Standing charges of insurance and depreciation are normally high on pig units since the stock is predominantly housed; buildings and plant make up a major portion of capital investment.

Profitability: The level of profit achieved in pig meat production depends largely on the following major economic parameters:

1. Sow productivity.
2. Economy of gain for slaughter pigs.
3. Food cost.
4. Return for pig meat.

Each of these is dealt with in the following examples:

1. Sow Productivity:

Sow production costs can be regarded as an overhead charge on pig meat production, and since the cost of maintaining a sow remains similar regardless of productivity the cost per weaner can vary greatly. The following example demonstrates this by defining a typical current cost situation.

Assumptions:

- a) Physical 25% sow replacement per annum
 2% sow mortality per annum
 20:1 sow to boar ratio
 2 year boar life

Sow is allowed an adequate all meal diet to cover maintenance and production requirement and is well housed in modern buildings.

- b) Financial Meal cost — Breeder meal \$100.00 per tonne
 New breeding stock values — sows \$120.00
 — boars \$200.00
 Cull Breeding stock value: 38 cents/kg dead wgt.
 Capital in buildings and plant/sow \$250.00

Annual Cost per Sow

| | |
|--|-----------------|
| Variable Costs: | \$ |
| Food — Sow 1.1 tonnes | 110.00 |
| Boar 1/20 tonne | 5.00 |
| Veterinary — drugs drenches etc. | 4.00 |
| Repairs & maintenance (4% \$250) | 10.00 |
| Miscellaneous costs (power, freights, water etc.) | 3.00 |
| Labour (1 unit per 80 sows) | 50.00 |
| Sow mortality (2% of \$120) | 2.40 |
| Stock replacement ($\frac{1}{4}$ new sow + $\frac{1}{40}$ new boar — = \$35.00 less recovery from culls \$18.00) | 17.00 |
| TOTAL | \$201.40 |

Fixed Costs:

| | |
|---|---------------|
| Depreciation — Plant & buildings 10% C.P. | 25.00 |
| Insurance | 2.00 |
| Overdraft — working capital (8% \$20) | 1.60 |
| TOTAL ANNUAL COST PER SOW | 230.00 |

This cost can be related to productivity as shown in the following table, on the basis of cost per weaner, and per kilogram of meat over a varying range of production levels. In assessing the cost per kg meat average dead weights per pig of 35 kg for fresh pork and 58 kg for pork for bacon production have been used.

| Weaner/Sow Per Year | \$ Per Weaner | Sow Overhead Costs | | Kg Bacon | Cents/kg |
|------------------------|------------------|--------------------|----------|----------|----------|
| | | kgs Pork | Cents/kg | | |
| 12 | 19.16 | 420 | 55.0 | 696 | 33.0 |
| 13 | 17.69 | 455 | 50.5 | 754 | 30.5 |
| 14 | 16.43 | 490 | 47.0 | 812 | 28.5 |
| 15 | 15.33 | 525 | 44.0 | 870 | 26.5 |
| 16 | 14.37 | 560 | 41.0 | 928 | 25.0 |
| 17 | 13.53 | 595 | 38.5 | 986 | 23.5 |
| 18 | 12.78 | 630 | 36.5 | 1044 | 22.0 |
| 19 | 12.10 | 665 | 34.5 | 1102 | 21.0 |
| 20 | 11.50 | 700 | 33.0 | 1160 | 20.0 |
| 22 | 10.45 | 770 | 30.0 | 1276 | 18.0 |
| 24 | 9.58 | 840 | 27.5 | 1392 | 16.5 |

2. Economy of Gain — Finishing Pigs

Economy of gain of pigs from weaning to slaughter is influenced by two main factors.

- (i) Efficiency of feed utilisation.
- (ii) Growth Rate.
- (i) Efficiency of feed use is normally expressed as the average ratio of kgs of meal used per 1 kg of live weight gain over the growing period, known as the Food Conversion Ratio (F.C.R.). The significance of the variation can be seen by showing the influence of a 0.1:1 change in the F.R.C.

For example a bacon pig gaining 66 kg live weight (16-82 kg) would use $0.1 \times 66 = 6.6$ kg meal more or less. If meal is \$110.00 per tonne. The change in meal cost is $6.6 \times 11 = 72.6$ cents per pig, and since 82 kg. liveweight yields around 57 kg meat, the variation of 0.1:1 F.C.R. represents 1.27 cents per kg meat at that meal price.

Actual F.C.R. figures are used in the example below, with the same assumptions as previously.

| FRC (16-82 kg l.wgt.) | | Meal Used (kg) | Meal Cost (\$) | Meal Cost (cents/kg l.wgt.gain) |
|--------------------------|---------|-------------------|-------------------|------------------------------------|
| 3.0:1 | good | 198 | 21.78 | 33.0 |
| 3.5:1 | average | 231 | 25.41 | 38.5 |
| 4.0:1 | poor | 264 | 29.04 | 44.0 |

- (ii) Growth rate, this is normally expressed as the average daily gain (A.D.G.) in kg liveweight, and is important economically since costs such as labour and capital building expenses are involved. The cost of keeping a finishing pig per day, (excluding feed) will vary depending on labour and capital intensity, but on an average modern farm would be around 3 cents. Again taking the example of the pig gaining from 18 – 82 kg or 66 kg live weight varying levels of A.D.G. are used to illustrate the economic significance of growth rate.

| A.D.G. (kg/day) | | Days for 66 kg live weight gain | Cost/pig (\$) |
|--------------------|---------|------------------------------------|------------------|
| 0.3 | poor | 220 | 6.60 |
| 0.4 | | 165 | 4.95 |
| 0.5 | Average | 132 | 3.96 |
| 0.6 | | 110 | 3.30 |
| 0.7 | good | 94 | 2.82 |

- c) Food Price: As indicated previously food is the major cost item in pigmeat production and any variation in the basic price of food of equal nutritional value is significant.

Below are set out total meal consumption figures per kg of meat produced – including sow, boar and creep meals and the effect of a \$1 per tonne movement in meal price or 0.1 cents/kg on cost per kg meat.

| kgs meal per kg pigmeat | | Meal price charge of \$1/tonne (\$/kg pigmeat) |
|----------------------------|-----------|---|
| 4.5 | very good | 0.45 |
| 5.0 | Good | 0.50 |
| 5.5 | average | 0.55 |
| 6.0 | fair | 0.60 |
| 6.5 | poor | 0.65 |

Care must be taken in evaluating feed prices as the influence of nutritional balance on pig performance can be dramatic, poor feed conversion ratios and growth rates can result from apparently cheaper foods with a comparative overall economic loss.

- d) Pigmeat Prices: Pigmeat returns will obviously affect the profitability of an enterprise, and whilst largely influenced by outside factors can be varied by managerial efficiency, especially in marketing techniques such as forward contract, and selling at the most profitable weight.

Quality grading is applied to all pigmeat at slaughter and most buyers make differential payments within grades to encourage the production of carcasses preferred by the consumer. These differential are varied from time to time, the current situation is that for bacon pigs the Prime grade shows a 4 or 5 cent premium above Choice grade, Standard 6 cents below Choice (per kg pigmeat).

The individual producer through breeding and feeding policy can influence the proportion of pigs within grades; at the present differentials a one per cent (1%) variation in grading is valued at 0.1 cents per kilogram of meat.

The effect of quite minor variations in these various factors has been shown to be significant in themselves, but when combined into the cost-return as a whole the result can mean the difference between profit and loss. The total effect is demonstrated in the following example using a combination of one unit variation for each factor.

| Factor | Variation | Effect cents/kg meat |
|---------------|--|----------------------|
| A. Sow prod. | 1 pig/sow/year from 15-16 | 1.50 |
| B. A.D.G. | 0.1 kg day from 0.4 – 0.5 | 1.73 |
| C. F.C.R. | 0.1:1 | 1.27 |
| D. Meal price | \$1 per tonne meal (average performance) | 0.55 |
| E. Schedule | 1 cent per kg | 1.00 |
| F. Grading | 1% change in grading | 0.10 |
| TOTAL | | 6.15 |

Based on a bacon size pig yielding 57 kg meat this represents \$3.50 per pig. The affect in a 100 sow herd producing bacon pigs would be around \$5,600.

GROSS MARGIN ANALYSIS — PIG ENTERPRISE 15/2/74 M.J.M. Hanley

As with the other forms of farming the use of the gross margin budgeting technique can be of great value in assessing the likely profitability of a pig production proposal, and in assisting farmers and advisers in making decisions on marketing and redevelopment policies.

Gross margin analyses for pig farms differ from others only in the form of assumptions and input data. These data take into account those factors most likely to influence the major economic parameters previously discussed. Assumptions will vary farm to farm and need to be based on factual physical performance and financial information, where the farmer is not available average figures may be used.

The following example uses average performance figures in setting out gross margins for weaner, fresh pork, and bacon weight pork pigs, illustrating how the technique may be used for comparing profitability at various marketing opportunity stages.

Example — For an all meal feeding unit

Assumptions:

a) Physical

- (i) Sow productivity — assuming 1.75 litters of 8 pigs per sow per year — average 14 pigs weaned/sow/year.
- (ii) Average weight of weaners — 16kg at 56 days.
- (iii) F.C.R. 3.6:1 to bacon weights (85 kg live weight)
3.2:1 to pork weight (55 kg live weight)
- (iv) Dressing out percentage at slaughter to produce hot carcase weight: 78% at 85 kg live weight
72% at 55 kg live weight
- (v) Post weaning. Mortality — average 3%
- (vi) Grading —

| | |
|----------|-----|
| Prime | 50% |
| Choice | 30% |
| Standard | 20% |
- (vii) Sow Replacement — Annual 25%, Sow Boar Ratio 20:1
2 year boar life, 2% sow mortality

b) Financial

- (i) Pig Meat Prices – Cents per kg. Bacon paid weight = hot weight - 10%
Pork paid weight = hot weight.

| | Prime | Choice | Standard | Average |
|----------|-------|--------|----------|---------|
| Pork | 117 | 117 | 95 | 112.6 |
| Bacon | 105 | 100 | 94 | 101.3 |
| Choppers | - | - | - | 38.0 |

Weaners: 16 kg live weight at \$1.12/kg = \$17.92

| | | |
|----------------|-------|----------|
| Breeding Stock | Sows | \$120.00 |
| | Boars | \$200.00 |

- (ii) Food Prices (home milling and mixing):

| | | |
|-----------------|----------|-----------|
| Breeder Meal | \$100.00 | per tonne |
| Grower Finisher | | |
| Meal | \$120.00 | per tonne |
| Creep Meal | \$140.00 | per tonne |

GROSS MARGINS

1. Weaner Production:

| | |
|---------------------------------------|---------------|
| Return | \$ |
| Sale 14 Weaner Pigs @ \$17.92 | 250.88 |
| less Breeding stock replacement costs | 19.40 |
| | <u>231.48</u> |

Variable Costs

| | | |
|-------------------------------------|----------------------------------|---------------|
| Food | Sow 1.1 tonnes | 110.00 |
| | Boar 0.05 tonnes | 5.00 |
| | Creep @ 14kg per weaner = 196 kg | 27.44 |
| Veterinary and Medicines | | 4.00 |
| Repairs and Maintenance | | 10.00 |
| Miscellaneous Expenses (power etc.) | | 3.00 |
| TOTAL VARIABLE COSTS | | 159.44 |
| Gross Margin Per Sow | | 72.04 |
| Gross Margin Per Weaner | | 5.15 |

2. Pork Production

| | | |
|---|----------------|---------------|
| Sale 39.6 kg meat @ 112.6 cents/kg | 44.59 | |
| less Value of Weaner = | \$17.92 | |
| less Marketing Costs – levies, transport | \$ 1.00 | |
| less 3% Post Weaning Mortality | \$ 0.94 | 19.86 |
| TOTAL RETURN | \$24.73 | |
| | | |
| Food – 39 kg gain at 3.2:1 | 14.98 | |
| Veterinary and medicines | 0.40 | |
| Repairs and Maintenances (4% \$30/4.7) | 0.26 | |
| Miscellaneous Costs | 0.75 | |
| TOTAL VARIABLE COSTS | \$16.39 | |
| Gross Margin Per Porker | | \$8.34 |

3. Bacon Production

| | | |
|---------------------------------------|----------------|---------------|
| Sale 59.7 kg paid weight @ 101.3 | 60.48 | |
| less value of weaner | \$17.92 | |
| less marketing costs – levies etc. | \$ 1.25 | |
| less 3% post weaning mortality | \$ 1.18 | 20.35 |
| TOTAL RETURN | \$40.13 | |
| | | |
| Food – 69 kg gain @ 3.6:1 | 29.81 | |
| Vet and medicines | 0.40 | |
| Repairs and maintenance (4% \$30/3.2) | 0.50 | |
| Miscellaneous costs | 1.00 | |
| TOTAL VARIABLE COSTS | \$31.71 | |
| Gross Margin Per Baconer | | \$8.42 |

The total Gross Margin per sow can be compared for the three systems as follows:

| | |
|--------------------|----------|
| Weaner Production | \$ 72.04 |
| Porker Production | \$188.80 |
| Baconer Production | \$189.92 |

Notes on Calculations:

- a) Breeding Stock Replacement Cost – Based on Assumptions of
25% annual sow replacement

2% sow mortality

20:1 Sow Boar Ratio

2 year boar life

Sows at \$120.00 – Boars \$200.00

New Replacement Cost

¼ value new sow \$30.00

1/40 value new boar 5.00

2% value new sow

(mortality) 2.40

Total new cost 37.40

less Recovery From Replaced Stock

¼ value chopper sow 16.00

1/40 value cull boar 2.00

Total Salvage Value 18.00

NET REPLACEMENT COST \$19.40

- b) Value of Post Weaning Mortality

Assumed % of the mean value of weaner and market value for
the Gross Margin on Bacon above for example:

$$.03 \frac{(17.92 + 60.48)}{2} = \$1.18$$

2

NOTES ON THE MARKETING OF BEEF CATTLE

A.R. McIvor 9.1.75

The livestock market in New Zealand is divided into three main sections. These are (a) store sales between farmers of breeding or fattening stock. (b) schedule sales of stock to freezing companies for export to World Markets, (c) local trade sales of prime quality stock to butchers for sale to New Zealand consumers. Each of these main markets, though operating on different supply and demand schedules, is related to the other and tends, even if for only short periods in some instances, to be influenced by demand from the other sections of the market.

Factors Influencing Store Sales

Though sale values fluctuate from sale to sale and between districts for the same class of stock, in general values tend to follow broad trends over periods of 2 – 3 years. Factors influencing prices paid are:

1. General profitability of finishing or breeding from the class of stock concerned at the current schedule or local trade price levels. In cases of forward stock, schedule values can virtually under-write the sale, setting minimum price levels.
2. Trend of schedule or local trade prices and the effect of probable changes on forecasting profit margins.
3. Availability of feed, and effect of climate conditions on feed. Generally New Zealand does not experience prolonged periods of drought on feed shortage, and depression of stock prices tends to be transitory frequently affecting sale values for only a part of the season.
4. Availability of finance and credit.
5. Probably the most important factor is the level of confidence for say beef, sheep or dairying by the farming community and the people who service agriculture. In recent years, there has been a universal confidence in beef with an unenthusiastic outlook for sheep and dairy products. There has been a trend to replace sheep with cattle and for some properties to move entirely into beef. Profitability has generally been better than sheep on a stock unit basis and this, together with increasing value of capital stock, has led to a steady annual increase in cattle numbers of approximately 5.9% nationally (1972/73) being 5.6% in the North Island and 7% in the South Island.

However for many buyers of store cattle, the 1974/75 season has been unprofitable due to the unprecedented fall in beef export values which in many instances reduced prime values to the original store buy in price or less. The buoyancy and confidence of the previous season has been replaced by caution with confidence largely being maintained by the support price and guarantee values offered by the Meat Board.

Factors Influencing Schedule Values

Schedule prices are assessed by exporters who sell to world wholesale markets. These companies follow world market prices, particularly U.K., U.S.A., Japan and the Pacific Basin area, and assess the level at which they can set their prices to attract fat stock from farmers, meet all costs and attain a profit. Factors which influence prices levels are:

1. World Market conditions – supply and demand and price trends.
2. Tariffs or quotas.
3. Shipping and killing charges.
4. Time and place of sale.
5. Industrial unrest and effect of stoppages.
6. To a limited extent competition between local trade and exporters for fat stock may for short periods inflate schedule values. In general during the winter and early spring little or no fat cattle are sold for export.

At times local trade may purchase prime sheep and cattle through the yards at below schedule value due to the inability of exporters to process certain classes of stock because of industrial unrest or limited works capacity.

Factors Influencing Local Trade Values

Approximately 30% of all beef slaughtered is consumed in New Zealand. In the South Island because of the lower cattle population relative to people, about 50% of all cattle slaughtered are used for local trade. It is suggested however that up to 60% of all prime beef is consumed within N.Z. Most of this stock is bought by buyers for butchers either on the farm or in the fat pens at sale yards. i.e. about 50% of the Christchurch beef requirement is bought through Addington with the remainder bought privately on farms or supplied to the Freezing Company. In some instances exporting companies buy stock for wholesale to butchers. In periods of shortage of fat cattle, practically all prime quality beef is bought for local consumption at values above export schedule. Thus the supply demand schedule for local trade works independent to the export schedule. Practically all fat stock in winter and early spring being bought for local trade with peak prices usually in October. Once feed supplies ease and most farmers are able to produce fat stock, the supply exceeds local trade requirements and price levels fall to export schedule values.

The influence of local trade buying is greatly affected by seasonal conditions. In general local trade begins to have an effect on fat stock prices in May, but in periods of shortage may begin in March or conversely as late as July. October appears to be the peak month with demand influence falling rapidly in November and December. Local trade values usually range from 5cents/kilo of carcase above schedule for winter months to 5-10 cents/kilo above schedule in October. Usually stock are bought by eye assessment of weight and it is an advantage to know actual live weight when selling in the paddock. A further point to note is that abattoir weights are taken when the carcase is hot, and includes the channel fats which can increase the killing out percentage by 2% over export weight.

MEAT BOARD GUARANTEE AND SUPPORT PRICES

During the 1974/75 season the Meat Board announced two support measures:

- a) Guarantee Prices to operate from 1st October 1975;
- b) Support Price to operate in 1974/75 season should export schedule values fall below 28-29c/kg G.A.Q.

The combined effect of low export market values together with increased processing and freight charges reduced export schedule values to the level when little or no profit remained for those who had bought store cattle for finishing, with massive losses sustained by buyers of big adult store steers. As the schedules deteriorated the situation promised to lead to unacceptably low prices for store cattle in the 1975 autumn with a ripple effect back to the breeders on store country who may have been forced to reduce breeding herds to maintain liquidity, thus eroding the productive base of the industry. To offset this effect the Meat Board announced a guaranteed price for four main grades of export beef (see page 56) for specific weight ranges with prices for the remaining grades and weight ranges to be announced later in 1975. The guarantee in particular underwrites the market for the 1975 store weaner, and yearling crop, by providing a guaranteed sale value to finishers of these cattle. However the restricted weight range announced is a move to discourage farmers from carrying over two year olds which should have been killed in the 1974/75 season. Any large scale carry over by farmers of adult cattle would effectively transfer beef from 1974/75 season into the 1975/76 season, with a consequential disruption in the flow of cattle into the works and markets. The Board's intention is to keep beef moving onto the market, and to maintain the New Zealand breeding herds. The second step by the Board has been to provide a floor price for the current season to hold returns to beef fatteners at the December schedule price level. This floor price which in some areas came in to operation in January effectively limits the amount of loss suffered by fatteners. The effect on these moves on store cattle prices is likely to lift the value of the average weaner steer to \$45-\$50, yearling steer \$80 with an increase in local trade prices for prime cattle probably commencing in August at levels up to 55c per kg.

MEAT EXPORTERS SCHEDULE PRICES TO PRODUCERS
(New Zealand Meat Producers Board)
NORTH AND SOUTH ISLAND

| | | Schedule at 11/2/74 Cents per kg | | Schedule at 22/1/75 Cents per kg | |
|---------------------------|---------------------|--|---------------|--|---------------|
| STEER & HEIFER | Weight Range | Steer | Heifer | Steer | Heifer |
| Chiller | U/220 | 68 | 66 | 26 | 24 |
| | 221/270 | 72 | 70 | 29 | 27 |
| | 271/340 | 74 | 72 | 32 | 30 |
| | 340/0 | 74 | 72 | 32 | 30 |
| GAQ | U/220 | 66 | 64 | 25 | 23 |
| | 221/270 | 70 | 68 | 28 | 26 |
| | 271/340 | 72 | 70 | 31 | 29 |
| | 340/0 | 72 | 70 | 31 | 29 |
| FAQ | U/220 | 62 | 60 | 24 | 22 |
| | 221/270 | 64 | 62 | 27 | 25 |
| | 271/340 | 66 | 62 | 30 | 28 |
| | 340/0 | 66 | 62 | 30 | 28 |
| Trimmer | All weights | 43 | | 13 | |
| Manufacturing | U/140 | 50 | | 12 | |
| | 140/0 | 57 | | 20 | |
| COW | | | | | |
| GAQ | U/140 | 56 | | 12 | |
| | 140/0 | 64 | | 24 | |
| GAQ1 | U/200 | 64 | | 20 | |
| | 200/0 | 66 | | 25 | |
| Trimmer | All weights | NQ | | | |
| FAQ Manufacturing | U/140 | 43 | | 43 | |
| | 140/0 | 57 | | 57 | |
| BULL | | | | | |
| FAQ | 0/200 | NQ | | NQ | |
| | 200/0 | NQ | | NQ | |
| Manufacturing | 0/160 | 60 | | 20 | |
| | 160/180 | NQ | | 29 | |
| | 181/260 | 70 | | 29 | |
| | 260/0 | 75 | | 37 | |

Forecasting of Future Beef Cattle Values for Budgetary Purposes

Forecasting the future outcome of events still to occur is a dubious pastime and must be undertaken with reservation. However, for those who trade goods or livestock, the future course of prices is of paramount interest. For budgetary purposes conservative prices with high probability of realisation are usually adopted. The purpose of the following illustrations is to endeavour to assist in a greater understanding of the influence of changing export schedule values upon cattle prices at various stages of livestock production.

(fig 1)

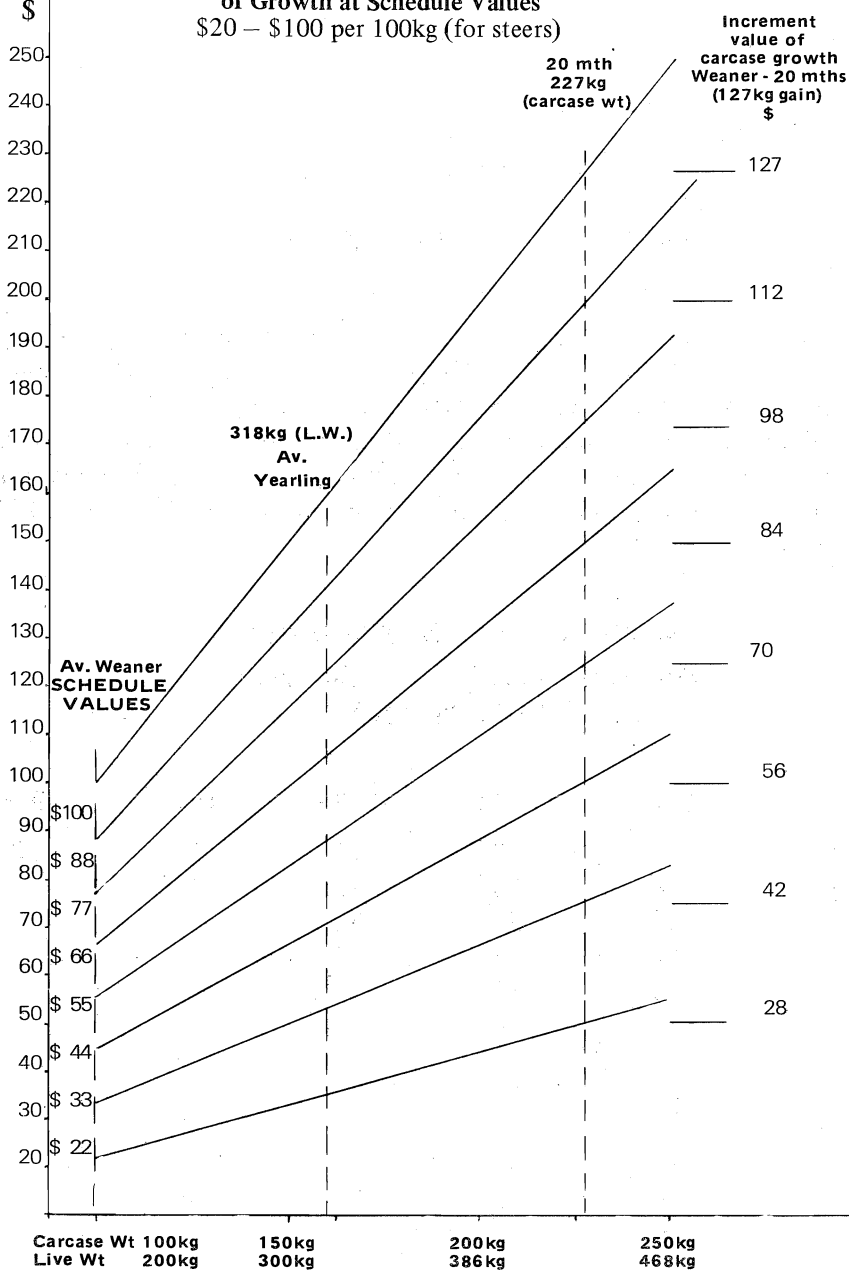
Figure 1 illustrates the growth in value of a weaner to slaughter at 20 months at export values ranging from \$22 to \$100 per 100 kg of carcase. The killing out percentage is assumed at 50% until yearling, increasing to 53% at 20 months. The figure not only shows the growth in the basic value of the 200kg (L.Wt) weaner with increased schedule prices, but also the marked increase in the value of the additional weight grown between weaner and 20 month (127 kg carcase weight).

MEAT OPERATIONS SCHEDULE Price GAQ Ox 221 - 270 kg in c per kg SOUTH ISLAND

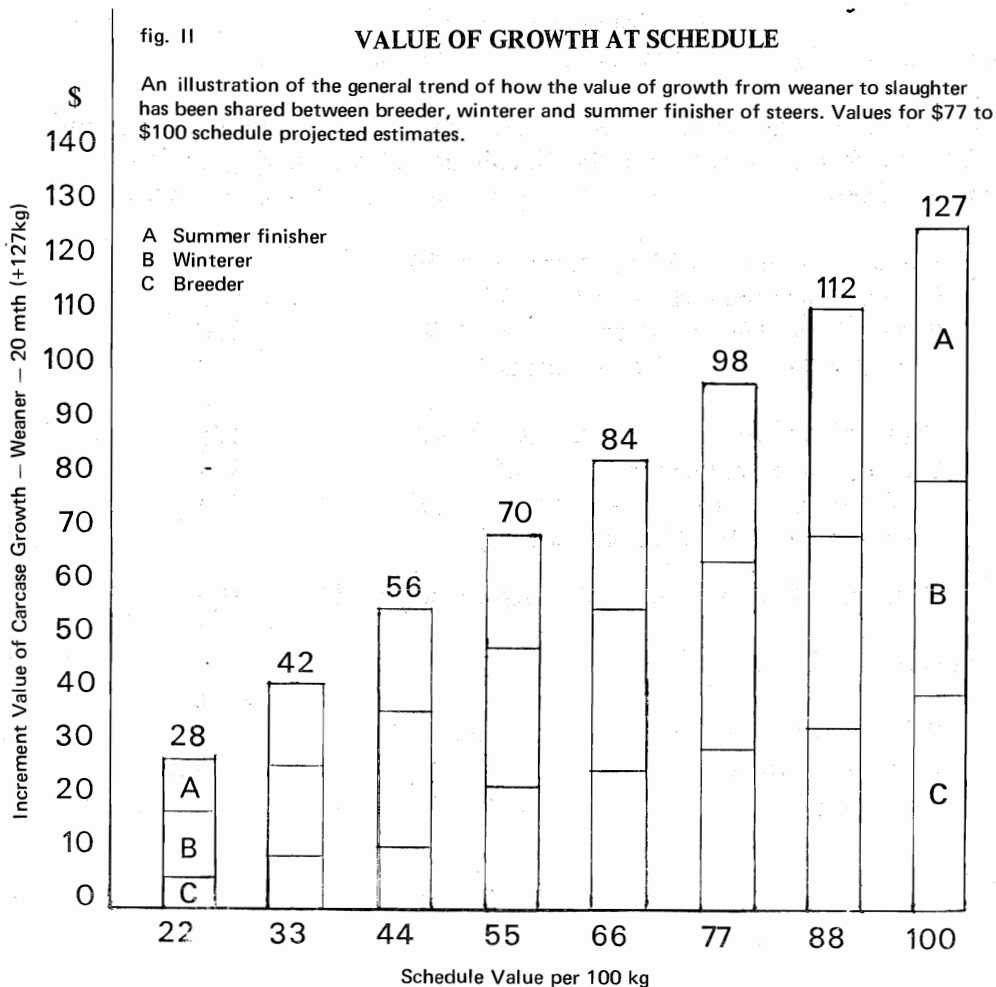
| | 1971 | 1972 | 1973 | 1974 | 1975 |
|-----------|------|------|------|------|------|
| January | 52 | 50 | 71 | 74 | 28 |
| February | 54 | 50 | 73 | 72 | |
| March | 54 | 52 | 80 | 63 | |
| April | 54 | 53 | 73 | 55 | |
| May | 54 | 53 | 71 | 48 | |
| June | 55 | 56 | 69 | 39 | |
| July | — | — | — | 43 | |
| August | — | 56 | — | 43 | |
| September | 57 | 56 | — | 37 | |
| October | 48 | 56 | 72 | 37 | |
| November | — | 63 | 76 | 34 | |
| December | 53 | 63 | 78 | 30 | |

fig 1

**Value of Cattle Carcase Weight at Different Stages
of Growth at Schedule Values**
\$20 – \$100 per 100kg (for steers)



Historically purchases of store weaners and yearlings for fattening on grass have paid a premium over export schedule values. This premium has fluctuated from year to year and is influenced by both the schedule value and the demand for stock due to availability of feed. The division of the value of the growth increment is shown in Fig. II.



The questions which are forecaster will ask himself are:

1. What is the likely schedule value for the season, and what does the average buyer expect it to be.
2. How much profit did cattle finishers make last year, and what will they expect this coming year.

A useful indication can be obtained by following sales and calculating the value per kg of carcase actually paid by purchasers.

To assess likely prices for store cattle, one needs to consider both the effect of schedule prices and the likelihood of the sharing of the growth increment. For 1975 the position is likely to be as follows:

| | |
|---|------|
| Value of weaner (100 kg carcase) @ \$47 | \$47 |
| Growth Increment share Nil — \$5 | \$ 3 |
| Price of Av. Weaner steer (200 kg L.Wt) | \$50 |
| or 25c kg L.W. (50c kg carcase) | |

| | |
|--|------|
| Value of yearling 160 kg carcase @ \$47 | \$75 |
| Growth Increment share Nil — \$5 | \$ 3 |
| Price for Av. yearling steer 320 kg L.W. | \$78 |
| or 24c kg L.W. (49c kg carcase) | |

Value of 20 month steer 227 kg carcase @ \$47 = \$107

Summary:

| | | Margin |
|------------------------|--------|-----------------|
| Price to store breeder | \$ 50 | |
| Price as yearling | \$ 78 | \$28 for winter |
| Price as 20 month fat | \$ 107 | \$29 for summer |

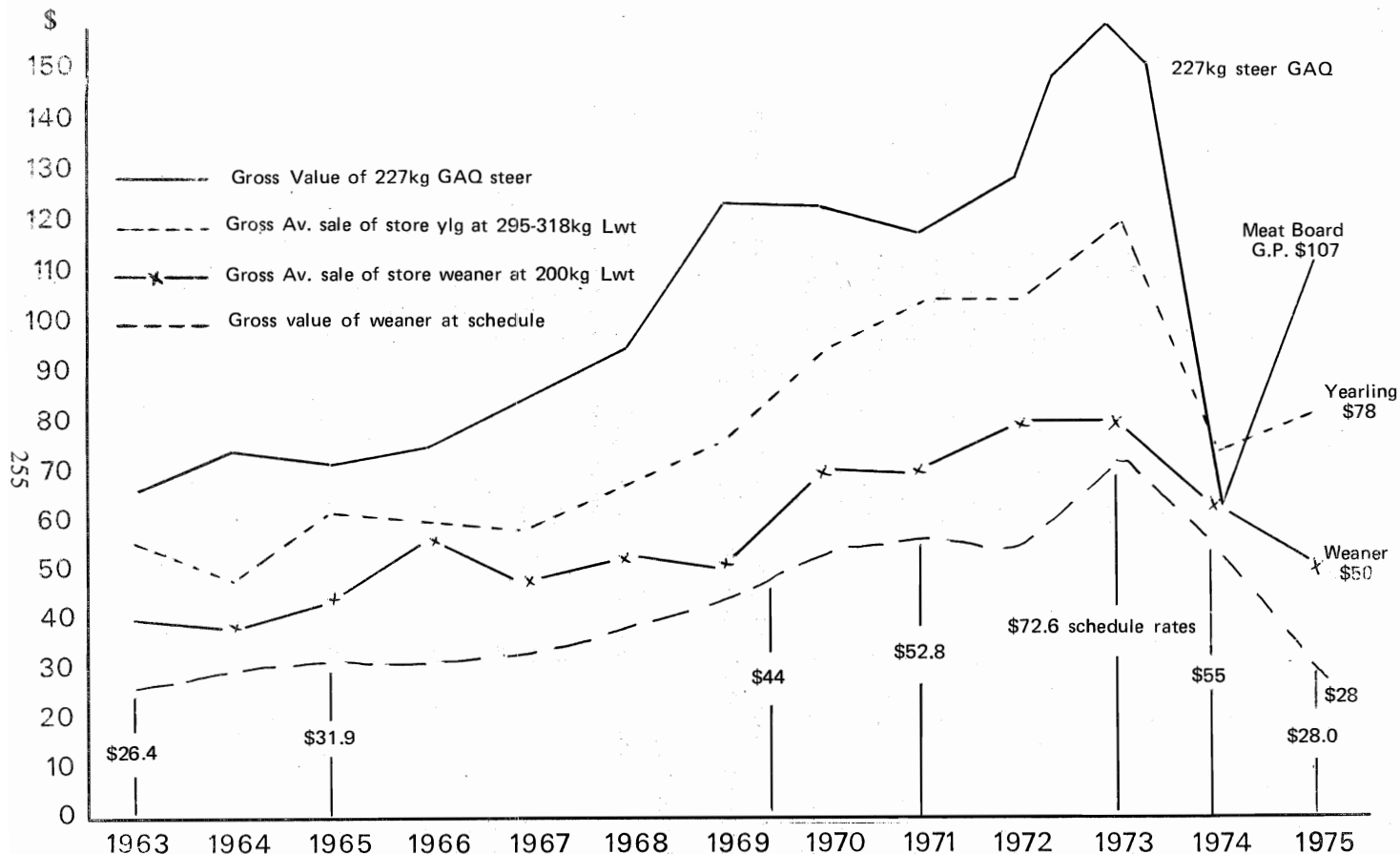


Fig III The general historical trend of growth income sharing between breeders, winterers and fatteners of steers.

NOTE: G.A.Q. 227 kg steer taken for the subsequent autumn, i.e. is for the same group of weaners and yearlings, i.e. weaners and yearlings 1973, 20 month G.A.Q. autumn 1974.

Store Cattle Values — Addington

Note* all 1974 figures are forecast estimates.

Weaner Steers April

| Year | Good | Medium | Small | Av Price Pd. Carcase Kilo | Differential G.H.A. Schedule |
|------|-------|--------|-------|------------------------------|---------------------------------|
| 1963 | \$ 45 | — | 21 | 33c | + \$ 7 (26.40) |
| 1964 | \$ 45 | — | 16 | 33c | + \$ 7 (29.80) |
| 1965 | \$ 57 | — | 26 | 37c | + \$ 8 (31.90) |
| 1966 | \$ 61 | — | 49 | 44c | + \$11 (31.30) |
| 1967 | \$ 58 | — | 48 | 41c | + \$12 (31.90) |
| 1968 | \$ 64 | — | 50 | 46c | + \$10 (37.40) |
| 1969 | \$ 58 | — | 44 | 41c | + \$ 6 (41.80) |
| 1970 | \$ 80 | 70 | 50 | 57c | + \$ 3 (54.30) |
| 1971 | \$ 75 | 65 | 54 | 61c | + \$12 (51.60) |
| 1972 | \$ 90 | 75 | 60 | 75c | + \$23 (53.00) |
| 1973 | \$ 90 | 75 | 60 | 79c | + \$ 5 (74.8c) |
| 1974 | \$ 75 | 63 | 40 | 60c | + \$ 5 (55.00) |

Figures shown in brackets is GAQ schedule for the period expressed in the c per kilo.
Differential based on 210 kilo live weight with carcase at 50%.

Weaner Heifers April

| Year | Good | Medium | Small | Av Price per Carcase Kilo | Differential to G.A.Q. Schedule |
|------|-------|--------|-------|------------------------------|------------------------------------|
| 1963 | \$ 41 | — | 17 | 33c | + \$6 |
| 1964 | \$ 38 | — | 15 | 26c | + \$3 |
| 1965 | \$ 37 | — | 28 | 31c | Nil |
| 1966 | \$ 55 | — | 39 | 46c | + \$15 |
| 1967 | \$ 43 | — | 35 | 37c | + \$ 5 |
| 1968 | \$ 57 | — | 46 | 42c | + \$ 4 |
| 1969 | \$ 45 | — | 33 | 36c | — \$ 6 |
| 1970 | \$ 65 | 55 | 35 | 53c | Nil |
| 1971 | \$ 67 | 57 | 42 | 57c | + \$ 4 |
| 1972 | \$ 80 | 70 | 50 | 68c | + \$18 |
| 1973 | \$ 75 | 60 | 45 | 66c | + \$ 6 |
| 1974 | \$ 60 | 50 | 35 | 53c | - \$2 |

Differential based on 190 kilo live weight weaner carcase at 50% of live weight.

Yearling Steers October

| Year | Good | Medium | Small | Av. Price per Carcase Kilo | Differential to G.A.Q. Schedule |
|------|-------|--------|-------|-------------------------------|------------------------------------|
| 1963 | \$ 60 | — | 30 | 31c | + \$6 (53.0) |
| 1964 | \$ 54 | — | 35 | 29c | + \$5 (32.0) |
| 1965 | \$ 70 | — | 54 | 42c | + \$14 (32.0) |
| 1966 | \$ 68 | — | 48 | 37c | + \$9 (31.0) |
| 1967 | \$ 65 | — | 50 | 37c | + \$17 (28.0) |
| 1968 | \$ 90 | 70 | 65 | 50c | + \$15 (40.0) |
| 1969 | \$ 82 | — | 60 | 48c | Nil (48.0) |
| 1970 | \$120 | 95 | 80 | 64c | \$22 (49.0) |
| 1971 | \$120 | 100 | 85 | 68c | \$23 (53.0) |
| 1972 | \$125 | 110 | 95 | 70c | \$25 (53.0) |
| 1973 | \$140 | 120 | 100 | 82c | \$ 9 (76.00) |
| 1974 | \$ 85 | 67 | 45 | 43c | \$ 7 (37.00) |

Differential based on 310 kilo live weight with carcase at 50%. Figures in brackets are GAQ schedule ruling at the period expressed in c per kilo.

Yearling Heifers October

| Year | Good | Medium | Small | Av. Price per Carcase Kilo | Differential to G.A.Q. Schedule |
|------|-------|--------|-------|-------------------------------|------------------------------------|
| 1963 | \$ 58 | — | 40 | 40c | + \$18 |
| 1964 | \$ 46 | — | 30 | 31c | Nil |
| 1965 | \$ 48 | — | 40 | 35c | + \$4 |
| 1966 | \$ 64 | — | 49 | 44c | + \$15 |
| 1967 | \$ 55 | — | 47 | 40c | + \$18 |
| 1968 | \$ 64 | — | 52 | 44c | + \$5 |
| 1969 | \$ 66 | — | 53 | 46c | — \$2 |
| 1970 | \$110 | 100 | 75 | 75c | + \$35 |
| 1971 | \$111 | 100 | 77 | 75c | + \$30 |
| 1972 | \$110 | 95 | 70 | 70c | + \$24 |
| 1973 | \$110 | 90 | 60 | 69c | + \$ 6 |
| 1974 | \$ 55 | 45 | 35 | 35c | — \$ 2 |

Differential based on 260 kilo liveweight with carcase at 50% of live weight.

Range of Values for Heifers & Cows

Unmated Heifers.

| | 1½ Yr April | 2 Yr Oct. |
|------|-------------|-----------|
| | \$ | \$ |
| 1963 | 40-56 | 79-81 |
| 1964 | 38-59 | 47-54 |
| 1965 | 40-60 | 73-79 |
| 1966 | 52-62 | 72-93 |
| 1967 | 60-70 | 69-74 |
| 1968 | 67-74 | 70-106 |
| 1969 | 54-62 | 84-110 |
| 1970 | 80-85 | 85-110 |
| 1971 | 80-90 | 110-150 |
| 1972 | 80-90 | 90-145 |
| 1973 | 100-140 | 120-165 |
| 1974 | 65-120 | 60-110 |

Cows

| | April | Oct. |
|------|---------|---------|
| | \$ | \$ |
| 1963 | 38-45 | 23-50 |
| 1964 | 20-57 | -39 |
| 1965 | 46-62 | -61 |
| 1966 | 70-79 | -61 |
| 1967 | 60-77 | 75-80 |
| 1968 | 78-92 | -82 |
| 1969 | 58-70 | -71 |
| 1970 | 84-117 | -110 |
| 1971 | 85-130 | 100-130 |
| 1972 | 90-140 | 116-120 |
| 1973 | 110-180 | 120-150 |
| 1974 | 65-140 | 50- 90 |

Export Slaughtering of beef for South Island.

Cumulative monthly totals and average carcase weight for steers and heifers.

1 Yr and Older.

| | 1971/72 | | 1972/73 | | 1973/74 | |
|--------|---------|---------|---------|--------|---------|---------|
| Month | No. | Av.Wgt. | No. | Av.Wgt | No. | Av.Wgt. |
| Oct. | 1054 | 256 | 856 | 249 | 829 | 232 |
| Nov. | 3211 | 251 | 2589 | 251 | 2764 | 233 |
| Dec. | 5759 | 254 | 8467 | 254 | 8688 | 233 |
| Jan. | 9399 | 260 | 17325 | 252 | 17491 | 231 |
| Feb. | 15974 | 260 | 38599 | 241 | 33917 | 230 |
| Mar. | 32755 | 253 | 75248 | 230 | 62791 | 225 |
| April | 58777 | 246 | 99904 | 227 | 84463 | 222 |
| May | 86837 | 243 | 127627 | 223 | 108769 | 220 |
| June | 99233 | 242 | 139038 | 222 | 116806 | 220 |
| July | 103149 | 242 | 140213 | 222 | 117406 | 219 |
| August | 104961 | 242 | 141729 | 222 | 117894 | 220 |
| Sept. | 106232 | 243 | 143065 | 222 | | |

Average Carcase Weight, South Island.

| | Steers & Heifer | Cows | Bulls | Vealers | Calves |
|---------|-----------------|------|-------|---------|--------|
| 1970/71 | 236 | 152 | 207 | 82 | 14.1 |
| 1971/72 | 253 | 165 | 216 | 97 | 14.5 |
| 1972/73 | 222 | 188 | 242 | 126 | 16.4 |
| 1973/74 | 220 | 191 | 245 | 112 | 17.3 |

Reference: N.Z. Meat Producer Board.

Estimated Average Gross Profit in rearing average steers, purchased at weaner and yearling, for fattening with sale at GAQ export schedule during the subsequent autumn carcase weight 230 kilo (506 lb).

| Year | Av. Weaner Purchase | Av. Yearling Purchase | 20 mth at GAQ | Gross Profit from Weaner | Gross Profit from Yearling |
|------|---------------------|-----------------------|---------------|--------------------------|----------------------------|
| Year | Av. Weaner Purchase | Av. Yearling Purchase | 20 mth at GAQ | Gross Profit from Weaner | Gross Profit from Yearling |
| | \$ | \$ | \$ | \$ | \$ |
| 1963 | 30 | 45 | 67 | 37 | 22 |
| 1964 | 30 | 45 | 72 | 42 | 27 |
| 1965 | 40 | 62 | 70 | 30 | 8 |
| 1966 | 55 | 58 | 72 | 17 | 14 |
| 1967 | 54 | 58 | 85 | 31 | 27 |
| 1968 | 57 | 70 | 95 | 38 | 25 |
| 1969 | 51 | 71 | 124 | 73 | 53 |
| 1970 | 70 | 95 | 120 | 50 | 25 |
| 1971 | 65 | 100 | 130 | 65 | 30 |
| 1972 | 75 | 110 | 174 | 99 | 64 |
| 1973 | 75 | 120 | 161 | 86 | 41 |
| 1974 | 63 | 65 | 63 | Nil | -\$2 |

- Though valuation and estimates of sales are given in discreet figures, it should be appreciated that a range of prices will be paid for equivalent beasts, within any sale and that gross profit will vary accordingly.
- 1963-70 Valuations of stock supplied by courtesy of State Advances Corporation, remainder through published sales in the Christchurch Press.
- 20 month GAQ values taken at subsequent autumn to weaner and yearling sales.

THE CANTERBURY SALE YARDS CO. LIMITED

Monthly Yardings

| | Fat | Fat | Store | Baconers | Porkers & Choppers | Store | Fat | Store | Dairy | Calves |
|-------------|-------|-------|--------|----------|--------------------------|-------|------|-------|-------|--------|
| 1970 | | | | | | | | | | |
| Jan. | 11818 | 5548 | 76767 | 12 | 976 | 1879 | 1521 | 1254 | 80 | 738 |
| Feb. | 12917 | 7193 | 149960 | 200 | 752 | 1984 | 1585 | 2424 | 123 | 816 |
| March | 9998 | 4634 | 76008 | 120 | 869 | 2212 | 1757 | 4812 | 96 | 1685 |
| April | 15421 | 9668 | 51656 | 21 | 862 | 1964 | 1717 | 6513 | 59 | 9629 |
| May | 10653 | 9520 | 24444 | 2 | 897 | 1920 | 1215 | 3845 | 107 | 1883 |
| June | 9825 | 8601 | 11093 | 2 | 922 | 1687 | 1543 | 1632 | 60 | 696 |
| July | 8778 | 7744 | 6156 | 20 | 494 | 2185 | 1351 | 666 | 101 | 392 |
| Aug. | 9852 | 7578 | 10368 | — | 673 | 2453 | 1686 | 949 | 210 | 496 |
| Sept. | 11721 | 11632 | 7894 | 12 | 959 | 3848 | 1647 | 1299 | 142 | 638 |
| Oct. | 15712 | 3346 | 7684 | 24 | 850 | 2770 | 1410 | 3851 | 92 | 447 |
| Nov. | 15427 | 3082 | 3285 | 3 | 915 | 2985 | 1681 | 1897 | 65 | 452 |
| Dec. | 12956 | 3079 | 13455 | 8 | 966 | 2223 | 1447 | 1208 | 55 | 518 |
| 1971 | | | | | | | | | | |
| Jan. | 12898 | 4332 | 49479 | 19 | 873 | 1915 | 1418 | 745 | 87 | 484 |
| Feb. | 16824 | 6512 | 119633 | 9 | 853 | 1606 | 1688 | 1662 | 78 | 533 |
| March | 13893 | 8082 | 58547 | 10 | 1071 | 1927 | 1994 | 3152 | 82 | 811 |
| April | 8906 | 6120 | 21547 | 13 | 758 | 1507 | 1199 | 13688 | 124 | 383 |
| May | 11447 | 9716 | 19576 | 6 | 912 | 1859 | 1369 | 7109 | 118 | 438 |
| June | 11978 | 11753 | 12356 | 8 | 655 | 2151 | 1292 | 2494 | 98 | 472 |
| July | 10454 | 11385 | 13355 | 6 | 536 | 1728 | 1420 | 1419 | 101 | 360 |
| Aug. | 13172 | 11860 | 12467 | 2 | 654 | 3307 | 1534 | 1597 | 125 | 809 |
| Sept. | 12077 | 12311 | 8578 | 1 | 638 | 3127 | 1549 | 1344 | 72 | 783 |
| Oct. | 11851 | 10573 | 6663 | 6 | 697 | 2062 | 1504 | 5943 | 75 | 764 |
| Nov. | 15506 | 8070 | 4954 | 17 | 952 | 2805 | 1720 | 2760 | 93 | 698 |
| Dec. | 9588 | 3746 | 13367 | 14 | 729 | 1332 | 1196 | 1158 | 66 | 540 |
| 1972 | | | | | | | | | | |
| Jan. | 9567 | 2765 | 38965 | 28 | 549 | 1200 | 1490 | 1169 | 119 | 628 |
| Feb. | 13703 | 6196 | 140285 | 6 | 947 | 1972 | 1735 | 2412 | 109 | 863 |
| March | 1116 | 5410 | 57681 | 16 | 661 | 1712 | 1100 | 4112 | 88 | 680 |
| April | 7122 | 5086 | 25260 | 10 | 600 | 1884 | 900 | 14717 | 189 | 520 |
| May | 16123 | 10364 | 28986 | 19 | 902 | 2754 | 1685 | 8951 | 151 | 870 |
| June | 9779 | 7573 | 10142 | 8 | 503 | 1368 | 1101 | 1970 | 85 | 622 |
| July | 8593 | 7876 | 7145 | 15 | 569 | 1447 | 1128 | 1405 | 424 | 526 |
| Aug. | 12540 | 9677 | 6953 | 8 | 742 | 2768 | 1636 | 1475 | 160 | 1258 |
| Sept. | 10226 | 9044 | 7480 | — | 570 | 3100 | 1216 | 1058 | 90 | 1311 |
| Oct. | 13172 | 9107 | 6173 | 9 | 841 | 3202 | 1878 | 7740 | 55 | 1365 |
| Nov. | 12474 | 4253 | 11311 | 13 | 1103 | 1859 | 1623 | 2441 | 100 | 973 |
| Dec. | 9420 | 3355 | 17447 | 2 | 1135 | 1586 | 1035 | 1685 | 54 | 608 |

1973

| | | | | | | | | | | |
|-------|--------------|--------------|---------------|-------------|--------------|--------------|--------------|--------------|-------------|--------------|
| Jan. | 14479 | 4769 | 102398 | 6 | 1345 | 1835 | 1485 | 4253 | 81 | 1438 |
| Feb. | 11997 | 5817 | 111223 | 5 | 813 | 1367 | 1318 | 2454 | 77 | 1159 |
| March | 6388 | 5272 | 51265 | 72 | 1028 | 2379 | 1089 | 7099 | 114 | 1183 |
| April | 5575 | 5054 | 26135 | 45 | 745 | 1569 | 1278 | 12541 | 112 | 891 |
| May | 5875 | 11097 | 22946 | 27 | 1385 | 2935 | 1577 | 11330 | 164 | 1149 |
| June | 3608 | 11111 | 17282 | 86 | 891 | 1316 | 1131 | 3219 | 134 | 691 |
| July | 5039 | 14869 | 11595 | 124 | 848 | 2384 | 1685 | 3136 | 115 | 1036 |
| Aug. | 4469 | 8194 | 6020 | 77 | 599 | 1710 | 1341 | 2433 | 96 | 1271 |
| Sept. | 5534 | 8520 | 9807 | 147 | 676 | 2601 | 967 | 3752 | 67 | 1313 |
| Oct. | 8410 | 10565 | 15503 | 129 | 838 | 3412 | 1802 | 11011 | 81 | 1539 |
| Nov. | 7438 | 2727 | 9696 | 315 | 667 | 2235 | 1039 | 3339 | 53 | 967 |
| Dec. | 7811 | 3861 | 20017 | 90 | 830 | 1733 | 1220 | 3898 | 45 | 820 |
| | 86623 | 91856 | 403887 | 1123 | 10665 | 25476 | 15932 | 68465 | 1139 | 13457 |

1974

| | | | | | | | | | | |
|-------|--------------|--------------|---------------|-------------|--------------|--------------|--------------|--------------|-------------|--------------|
| Jan. | 11957 | 4097 | 91555 | 65 | 996 | 2486 | 1471 | 2643 | 71 | 1270 |
| Feb. | 8189 | 3476 | 101917 | 36 | 805 | 2164 | 939 | 1874 | 48 | 1064 |
| March | 6746 | 7747 | 82747 | 14 | 961 | 2719 | 1176 | 6102 | 64 | 1033 |
| April | 8402 | 10465 | 35406 | 39 | 1107 | 2697 | 1669 | 15735 | 99 | 1084 |
| May | 4502 | 7860 | 13958 | 86 | 1043 | 2087 | 1962 | 7098 | 61 | 696 |
| June | 5238 | 9210 | 8170 | 98 | 808 | 1900 | 1561 | 2496 | 82 | 562 |
| July | 4958 | 8868 | 7346 | 171 | 1007 | 2893 | 1574 | 1363 | 100 | 701 |
| Aug. | 5133 | 8198 | 6186 | 87 | 822 | 2551 | 1679 | 2016 | 196 | 1007 |
| Sept. | 7542 | 8272 | 5749 | 90 | 882 | 3562 | 1668 | 2395 | 159 | 770 |
| Oct. | 7434 | 9684 | 7204 | 281 | 731 | 3667 | 2747 | 5828 | 83 | 1304 |
| Nov. | 10149 | 3422 | 5349 | 118 | 901 | 2240 | 2144 | 3358 | 49 | 913 |
| Dec. | 6569 | 33448 | 7047 | 42 | 624 | 1958 | 1444 | 2227 | 29 | 393 |
| | 86819 | 84747 | 372634 | 1127 | 10687 | 30924 | 20034 | 53135 | 1041 | 10797 |

Christchurch Meat Consumption and Stock available through Sale Yards.

Christchurch population 292,500 as at April, 1974.

Annual Meat Consumption per (bone in)

| | Capita* | Av. Carcase Wgt. | Annual | Month |
|--------|---------|------------------|------------|----------|
| Beef | 45.0 | 270.0 | 48,750 | 4,060 |
| Veal | 3.0 | 108.0 | 9,750 | 812 |
| Mutton | 31.0 | 23.0 | 394,240 | 32,850 |
| Lamb | 9.1 | 13.0 | 266,175 | 22,180 |
| Pork | 6.4 | 36.4 | 51,420 | 4,285 |
| Bacon | 6.8 | 55.0 | 36,160 | 3,010 |
| Fish | 5.0 | — | 1,460 tons | 122 tons |

Monthly yardings of fat and store stock at Addington, supplied by courtesy of The Canterbury Sale Yards Co.

Gross Margin analysis for Beef

The following examples are put forward to illustrate a technique of deriving a gross margin for two beef enterprises and will not necessarily reflect the margin derived by these policies in all situations.

Further, costs for interests and supplementary feeds will not be included but will be discussed separately. To compare beef cattle with sheep or crop margins, it is essential to ensure that all direct costs, applicable to the situation are included, and further, that the comparison is made according to the most limiting resource which may be either capital, or land. For this reason the examples will express the margin in terms of return to Capital invested in stock, per hectare and per ewe equivalent. It is convenient to compare sheep policies with cattle by means of the ewe equivalent technique but care should be taken to ensure that the feed supply is adequate for both classes of stock due to the different requirements of cattle to sheep throughout the year.

Policy No. 1:

Breeding from cows and 14 month heifers. All weaners except replacements sold in April as store.

128 cows 24 in-calf heifers
95% calving from cows, 80% from heifers
2% deaths

Capital Stock

| | | | | | |
|--------------------|--------|---------|---|-------------------------|----------|
| 128 cows | at 6 | E/E | = | 768 at \$ 90 per head= | \$11,520 |
| 24 in-calf heifers | at 5 | E/E | = | 120 at \$ 90 per head = | \$ 2,160 |
| 25 weaner heifers | at 3.5 | E/E | = | 88 at \$ 40 per head = | \$ 1,000 |
| 4 bulls | at 6 | E/E | = | 24 at \$400 per head = | \$ 1,600 |
| 181 | | | = | 1000 | \$16,280 |
| | | Per E/E | = | \$16.28 | |

Income

| | | | | |
|-------------------|---------|---|----------|----------|
| 70 weaner steers | at \$50 | = | \$ 3,500 | |
| 46 weaner heifers | at \$35 | = | \$ 1,610 | |
| 5 2 Yr heifers | at \$80 | = | \$ 400 | |
| 16 cull cows | at \$70 | = | \$ 1,120 | |
| 1 bull | at \$80 | = | \$ 150 | \$ 6,780 |

Expenditure

| | |
|---------------------------------|--------|
| Bull purchased, landed at \$800 | \$ 800 |
| Freight on sale stock | \$ 436 |

Animal Health

| | | |
|--------------------------------------|----|--------|
| Drench 25 weaners 2 x 30c | 15 | |
| Spray 181 cattle at 40c | 73 | |
| Preg. test 128 cows at 45c | 58 | \$ 146 |
| Commission on sale stock 3.5% \$5510 | | \$ 192 |

Yard fees 40c 121 hd.

| | |
|--------------|----------|
| Direct Costs | \$ 1,574 |
|--------------|----------|

| | |
|--|----------|
| Gross margin before interest & feed cost | \$ 5,206 |
| Gross margin per E/E | \$ 5.20 |
| Per hectare at 8 E/E | \$ 41.6 |
| As % of Capital in Stock | 32% |

Policy 2:

Purchase of medium weaner steers in April, sold at 20 months of age at an average carcase weight of 230 kilos. Death rate 2%.

Capital Stock

| | | | | | | |
|---------------------------|---|-----------|---|--------|---|----------|
| 250 Weaner steers & 4 E/E | = | 1,000 E/E | = | \$50 | = | \$12,500 |
| | | Per E/E | = | \$12.5 | | |

Income

| | | | |
|------------|----------|---------------------|----------|
| 245 Steers | at 230 k | at 50c kg av. value | |
| | | \$115 per head | \$28,175 |

Expenditure

| | | |
|---------------------------------|----------------------------------|----------|
| | 250 weaner steers at \$54 landed | 13,500 |
| | Freight on sale stock at \$4 hd | 980 |
| Animal Health | | |
| Drench 2 x 30c | 145 | |
| Spray 2 x 20c | 100 | |
| Bloat | 25 | 270 |
| Direct Costs | | \$14,750 |
| Gross margin before int or feed | | \$13,425 |
| Gross margin per E/E | | \$13.42 |
| Per hectare at 8 E/E | | \$107 |
| As % of capital in stock | | 107% |

Partial Budgeting for Beef

Interest and Feed Costs

For comparison with gross margin analysis of sheep or crop alternatives on the same property, and when interest has been excluded from these analyses. It is necessary to exclude interest from beef analysis also in order to retain relativity.

However due to the high capital requirements and the fact that in most instances borrowed capital is involved necessitating loan servicing a partial budget approach is normally adopted, and includes estimates of interest and feed costs in order to provide a more accurate indication of actual returns.

Feed costs can be ignored where there is no change in the supplementary feed required to implement a cattle policy in place of a sheep alternative. Where there is a change however, all additional supplementary feed costs, should be included. There is a trend towards greater supplementing of beef cattle with hay, grain and green feeds and co-operative ventures involving grazing contracts. It should be noted that the opportunity to supplementary feed beef profitability increases with the increase in price per kilo of carcase. Of the variable costs related to beef enterprises, the most variable excluding the purchase price of replacement stock, and frequently the most critical cost is feed cost. Partial budget examples of policies 1 and 2 including interest and feed costs.

Policy 1

| | | | |
|--|----------|--------|----------|
| Gross margin before interest & feed cost | | | \$ 5,206 |
| Less: Interest on capital in stock at 9% | | | |
| on \$16,280 for 1 year | \$ 1,465 | | |
| Feed Costs | | | |
| 152 cows and heifer, hay 1 bale | | | |
| to 5 | | | |
| for 120 days – 1600 bales | | | |
| 25 weaner heifers, hay 1 bale | | | |
| to 7 | | | |
| for 120 days = 370 bales | | | |
| Total hay including bulk reg. | | | |
| say 2000 bales at 30c | = | \$ 600 | \$ 2,065 |
| Gross margin after interest & feed | | | \$ 3,141 |
| Return per ewe equivalent | \$ 3.14 | | |
| per hectare | \$ 25.12 | | |
| As % of Capital in stock | 19% | | |

Winter Feeding Costs

North Island:

Grass wintering 5 weaners per hectare of A.S.P. + 1 bale hay to 10 weaners.

Grass wintering 5 weaners per hectare of A.S.P. + 1 bale hay to 10 weaners per day for 60 days = 6 bales per head.

Chou moellier 15 - 18 weaners per hectare plus some hay — up to 1 bale to 10 weaners per day.

Cows — pad feeding beef cows 1 bale to 4 cows meadow hay per day as a complete ration.

Grazing charges vary from season depending on availability of surplus roughage.

Surplus years — 35 cents per head per week.

Good grazing — 65 cents per head per week.

Winters following drought — 65 cents to \$1.00 depending on quality and availability.

South Island:

Hay and grain feeding 100 days.

Weaner steers — full hay ration 1 bale to 7 weaners (5 kilo hay).

— hay plus grain 1 bale to 9 plus 4 lb grain (4 kilo hay)

— Turnips, hay and grain 1 bale to 10 weaners plus 2 kilo grain while wintering at 18 beasts per hectare of turnips.

Winter Growth Rates

Great variability has been experienced in winter growth rate from year to year. Apart from parasitic effects, factors such as pre-weaning competition with cows for available grass can check calf growth which appears to create a period of slow recovery. The farmer's intuition of paddock shifts and timing and some paddocks of soft grass can slow or check growth. Gold, late springs will continue the winter slow growth period into September and delay the rapid spring growth phase.

In order to assess the various costs of wintering the following rates of growth have been selected as being the most likely expectation.

| | | |
|---------------|--|-------------------------|
| North Island: | All grass or grass plus hay | — .2 — .4 kilo per day |
| | Chou moellier | — .2 — .25 kilo per day |
| South Island: | 5 kilo medium meadow hay plus some grass | — .2 — .25 kilo per day |
| | 4 kilo medium meadow hay plus 2 kilo grain | — .4 — .7 kilo per day |
| | Ad lib turnips plus 2 kilo hay, 1.5 kilo grain | — .4 — .7 kilo per day |

To assess feed requirements and likely growth rates derived from food stuffs refer to section “The Food Requirements of Ruminants”, K.T. Jagusch.

Policy No. 2

| | | |
|--|----------|----------|
| Gross margin before interest and feed cost | | \$12,500 |
| Less: | | |
| Interest on capital 9% of \$12,500 | \$ 1,125 | |
| Interest on capital in grain silos roller and feed lot \$2,000 at 8% | \$ 160 | |
| Feed Costs | | |
| 250 weaners and 1 bale hay to 8 for 120 days = 3,760 bales at 30c | \$ 1,130 | |
| Grain at 2 kilo each per day for 100 days = 50 tonnes at \$90 = | \$ 4,500 | \$ 6,915 |
| Gross Margin after interest and feed | | \$ 5,585 |
| Return per E/E | \$ 5.58 | |
| per hectare | \$44.6 | |
| as % of capital in stock | 45% | |

Examples of Feed Costing per day for weaners:

| | | |
|------------------------------|---|------------|
| Assessed cost of feed | | |
| Hay 1 bale at 30 kilo at 30c | = | 1c kilo |
| Grain — barley | | 8.8c kilo |
| Turnips at say | | 1c per day |

| Ration | Cost Day | Growth Day | Carcase Day | Income 44c | Day at 55c | 66c | 77c |
|---------------------------------------|-------------|---------------|----------------|---------------|---------------|-----|-----|
| 5 kilo of hay | 6c | .25k | .12 | 5c | 7 | 8 | 10 |
| 4 kilo hay 2 kilo grain | 21.6c | . 6k | . 3 | 13c | 16c | 20 | 23 |
| 4 kilo hay: 1½ kilo grain + turnip | 18.2c | . 6k | . 3 | 13c | 16 | 20 | 23 |

Example of assessing actual value of carcase growth in purchased cattle to time of sale.

| | Weaner | Yearling | 20 mth | Growth Weaner kilos | Increment Yearling kilos |
|---------------------|--------|----------|--------|---------------------------|--------------------------------|
| Live wgt in kilo | 210 | 310 | 400 | | |
| Carcase wgt in kilo | 105 | 155 | 230 | 125 | 75 |

| Value of animal on side | Weaner | Yearling | 20 mth | Net increment value per k Weaner | Yearling |
|-------------------------|--------|----------|--------|-------------------------------------|----------|
| 1970/71 | \$70 | \$ 95 | \$120 | 40c | 33c |
| 1971/72 | \$65 | \$100 | \$130 | 52c | 40c |
| 1972/73 | \$75 | \$110 | \$174 | 79c | 85c |
| 1973/74 | \$75 | \$120 | \$130 | 44c | 13c |
| 1974/75 | \$65 | \$ 70 | \$ 63 | — 2c | — 9c |

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