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R E S E A R C H U N I T

Lincoln College

STUDIES IN COSTS OF PRODUCTION TOWN MILK SUPPLY FARMS 1974-75

by

R. J. Gillespie

Research Report No. **76**

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THE AGRICULTURAL ECONOMICS RESEARCH UNIT

THE UNIT was established in 1962 at Lincoln College, University of Canterbury. Its major sources of funding have been annual grants from the Department of Scientific and Industrial Research and the College. These grants have been supplemented by others from commercial and other organisations for specific research projects within New Zealand and overseas.

The Unit has on hand a programme of research in the fields of agricultural economics and management, including production, marketing and policy, resource economics, and the economics of location and transportation. The results of these research studies are published as Research Reports as projects are completed. In addition, technical papers, discussion papers and reprints of papers published or delivered elsewhere are available on request. For list of previous publications see inside back cover.

The Unit and the Department of Agricultural Economics and Marketing and the Department of Farm Management and Rural Valuation maintain a close working relationship in research and associated matters. The combined academic staff of the Departments is around 25.

The Unit also sponsors periodic conferences and seminars on appropriate topics, sometimes in conjunction with other organisations.

The overall policy of the Unit is set by a Policy Committee consisting of the Director, Deputy Director and appropriate Professors.

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PREFACE

This Report is the second in the annual series of cost of production surveys on New Zealand town milk supply farms. The surveys are being undertaken by the Unit on a contract basis for the New Zealand Milk Board and the Town Milk Producers Federation of New Zealand (Inc.).

The first Report which related to the 1973/74 season was published in March of this year as Research Report No. 74. The time lag for the Report on the 1974/75 season has not been as great and in future years the lag period should be reduced even further.

As in the past the major objective of the surveys is to determine the average labour return being received by town milk producers in New Zealand.

Nevertheless the opportunity provided by the surveys has been used to collect additional data so that over a period of time a more comprehensive profile of the industry will be built up.

John Gillespie carried out the field work and analysis. In the latter he had some assistance from Pat Campbell.

Professor Owen McCarthy
Director

November 1976

ABBREVIATIONS USED IN THIS REPORT

No.	=	number
ha	=	hectares
prod. ha	=	productive hectares
l	=	litres
L.U.	=	Labour Units
m.	=	million
milk prod.	=	milk produced
exps.	=	expenses
equip.	=	equipment
M.P.	=	Milk Producer
Assn.	=	Assocation
N.A.	=	Not Available

SUMMARY OF THE 1973-74 AND 1974-75 NATIONAL SURVEY RESULTS

Characteristic		1973-74	1974-75
Total Town Milk Producers	(No.)	1,743	1,693
Farms in Survey	(No.)	90	90
Total Farm Area	(ha)	81.7	82.4
Productive Farm Area	(ha)	73.0	73.2
Dairy Productive Farm Area	(ha)	N.A.	74.7
Daily Quota	(l/farm)	682	728
Herd Size	(cows/farm)	100	102
Labour	(L.U./farm)	2.03	1.96
Milk Production	(l/farm)	356,985	369,611
	(l/prod.ha)	4,890	5,053
	(l/dairy prod.ha)	N.A.	4,945
	(l/L.U.)	175,854	188,577
	(l/cow)	3,570	3,611
Total Value of Assets	($/farm)	167,952	203,724
Gross Revenue	($/farm)	35,875	38,328
Total Expenditure	($/farm)	23,351	24,696
Net Income	($/farm)	12,524	13,632
Net Income at 5% Imputed Interest on Farm Assets	($/farm)	6,571	6,212
Gross Revenue	(cents/l)	10.050	10.370
Total Expenditure	(cents/l)	6.542	6.682
Net Income	(cents/l)	3.508	3.688

1. BACKGROUND.

1.1. Objectives of the National Farm Survey

As in previous years, the principal objective of the 1974/75 survey was to ascertain the average net farm income received by town milk producers in New Zealand. Information produced by the survey is used to assist decisions concerning applications for price increases from specific producer groups. The national average cost and return levels are used as benchmarks with which costs and return figures derived from smaller regional surveys can be compared. The survey data obtained also provide a continuing set of statistics on the economic position of town supply dairy farms. The availability of such information is of value to the individual farmer, regional advisors, and Government policy makers.

1.2. The 1974/75 Season

The survey period covered by this Report extends from 1st April 1974 to 31st March 1975.

1.2.1. Climatic Conditions

The most important climatic feature of the 1974/75 year was the exceptionally high frequency of winds from an easterly quarter. These persistent easterlies brought excessive cloud and rain to eastern districts, especially from Christchurch northward, while most western districts experienced comparatively dry sunny conditions.

Rainfall was 10 to 40 percent above average in districts east of the ranges from Ashburton northwards and also in the Bay of Plenty, Wellington and Nelson areas. For a number of meteorological stations in Southern Wairarapa, Wellington City, North Canterbury and Banks Peninsula, 1974/75 was the wettest year in 40 to 60 years of observation. By contrast, rainfall was mainly below normal by 10 to 40 percent in Westland, Southland, the greater part of Central Otago, Auckland, Western and Northern Northland and in parts of Waikato and Taranaki. Most areas

experienced beneficial rainfall in the early part of the 1975 autumn. This enabled most suppliers to approach the winter with adequate reserves of feed for stock.

The 1974/75 year was warmer than average in most areas, especially those areas west of the main ranges.

1.2.2. Producer Prices

Changes in the town milk producer price have continued to be linked with changes in the average manufacturing price for whole milk for all major uses. An increase (or decrease) in price of one cent per kilogram of milkfat results in an increase (or decrease) of 0.06 cents per litre in the town milk producer price.

Town milk is divided into three quality grades: finest, first and second. Producers are penalised with respect to price for milk graded into the latter two groups. For the year ending 31st August 1975, the finest grade price was paid on 97.89% of the total quantity of quota milk supplied to the New Zealand Milk Board. Producer companies have their own internal policies regarding penalties on sediments, added water and solids-not-fat etc.

Both town supply and manufacturing (factory) milk prices are established on the first day of September for the ensuing 12 month period. The national average town milk producer prices announced on 1st September 1974 were 9.3184, 8.9514 and 8.2194 cents per litre for finest, first and second grade respectively. With the downward movement in the realisation of New Zealand's milk fat products overseas during 1974/75, there was a corresponding downward adjustment to the town milk price during the year.

Table 1 shows the movement in the national average town milk producer price (finest grade) over the three years up to and including the 1974/75 year.

TABLE 1

National Average Town Milk Producer Prices

Year Commencing 1st September	Advance price (cents per litre)	Final price (cents per litre)
1972	7.2493	8.3579
1973	6.8081	8.9812
1974	9.3184	9.2086

Source: New Zealand Milk Board 22nd Annual Report, 1975.

From the final prices given in Table 1, the national average price (finest grade) for the 1974/75 survey year (year ending 31st March 1975) has been calculated as 9.1139 cents per litre. This represents a 4.5 per cent increase in price compared with the 1973/74 survey year (8.7215 cents per litre).

Most producer companies are actually paid at standard seasonal prices. These prices average back to the national average prices referred to in Table 1. Some producer companies elect to vary their milk prices throughout the year to compensate for climatic conditions, or as a means of encouraging higher production in the more difficult production months. Where within year variations of prices are utilised, the entire payout must average back to the national average price.

As in past years, special producer prices over and above the national average price, have been paid in certain districts with particular production problems. A proportion of these allowances is reviewed each year.

Table 2 summarises the town milk prices by district for the 1974/75 survey year.

TABLE 2

Town Milk Prices for the 1974/75 Survey Year by District

District	National Average Town Milk price cents/litre	Special South Island allowance cents/litre	Special District allowance* cents/litre	Total price cents/litre
A. North Island Districts				
Tokoroa	9.1139		0.550	9.6639
Mangakino	9.1139		0.550	9.6639
Rotorua	9.1139		0.660	9.7739
Gisborne	9.1139		0.367	9.4809
Hawkes Bay	9.1139		0.367	9.4809
Ruapehu	9.1139		0.735	9.8489
Wellington 30 mile area	9.1139		0.185	9.2989
B. South Island Districts				
Greymouth	9.1139	0.735	0.185	10.0339
Christchurch	9.1139	0.735	0.367	10.2159
North Otago	9.1139	0.735	0.735	10.5839
Central Otago	9.1139	0.735	1.100	10.9489
Southland	9.1139	0.735	0.735	10.5839

* Special District allowances are paid over six autumn and winter months.

Source: New Zealand Milk Board 22nd Annual Report, 1975.

1.3. Town Milk Suppliers and Quotas

The number of town milk suppliers declined in the year ending 31st August 1975 while average daily quotas increased. Table 3 gives the number of milk suppliers and average daily quotas since 1972/73.

TABLE 3

Town Milk Suppliers and Daily Quotas

Year ending 31st August	Total number of suppliers in New Zealand *	Average Quotas (litres/day)	Increase in average quota over previous year
			%
1973	1,794	654	-
1974	1,743	703	7.49
1975	1,693	741	5.41

* Excludes sub quota holders.

Source: New Zealand Milk Board. "Town Milk" August, 1976.

1.4. Town Milk Production Data

Total town milk production in the year ending 31st August 1975 increased by 4.85 per cent over the previous year. This increase was partly due to more favourable climatic conditions for milk production during the year.

Table 4 shows the total production and sale of milk passing through the National Milk Scheme for the years ending 31st August 1974 and 1975; an estimate has been made for production in the year ending 31st March 1975.

TABLE 4

Total Town Milk Production

Year ending	Total milk production (m.litres)	Milk sold at town milk prices (m.litres)	Milk sold at surplus milk prices (m.litres)	Proportion of milk sold at town milk prices (%)
31 August 1974	640.6	503.9	136.7	78.7
31 August 1975	671.7	517.1	154.6	77.0
31 March 1975 (estimated)	658.7	511.6	147.1	77.7

Source: New Zealand Milk Board 21st & 22nd Annual Reports, 1974 & 1975.

2. DESCRIPTION OF THE SURVEY

2.1. The sample

The sampling unit in the survey was the farm, and the main sources of data were the farmer and the annual set of farm accounts. For a farm to qualify for inclusion in the sample, the following set of criteria had to be satisfied:

(i) The farm supplied a producer association that had a nominated quota (N.Q.) of more than 17,000 litres daily.

(ii) The farm itself had a daily quota of more than 200 litres.

(iii) The farm received at least 75 per cent of gross revenue from town milk sales.

(iv) The farm engaged no sharemilker.

(v) The farmer had been producing town milk on a particular farm over the entire survey period.

(vi) Ownership of the farm was uncomplicated and the farm could be treated as owner operated.

(vii) The farmer agreed to participate in the survey and provide the necessary data.

It should be noted that criteria (iii) excluded most of the larger pedigree breeders with town milk quotas, and farms with other major enterprises in addition to town milk production.

Provided farms satisfied these eligibility criteria, farms randomly selected for the 1973/74 survey were included in the 1974/75 sample. Seventy-four per cent of North Island producers and 65 per cent of South Island producers who participated in the 1973-74 survey were included in the 1974-75 sample.

New participants in the survey were selected randomly from the New Zealand Milk Board's quota records. Representatives of the New Zealand Milk Board and the Producer Companies contacted all new farmers selected and determined whether they were eligible to be included in the sample.

The sample was stratified both by producer association and by quota size. Table 5 shows that the number of survey farms selected from each producer association is in proportion to the total number of suppliers to each association. Table 6 shows the distribution of the sample by quota group in the two islands. Figure 1 compares the percentage distribution of producers by quota group in the sample with the national population.

TABLE 5 Geographic Distribution of Sample

Name of Producer Association in Survey*	No. of Suppliers for Year Ending 31st August 1975	Proportion of Population %	Proportion of Quota %	Proportion of Survey Sample %	No.of Farms in Survey
Whangarei	18	1.2	1.97	1.1	1
North Shore, Auckland	37	2.5	2.74	2.2	2
Auckland Co-op.	143	9.7	10.58	7.9	7
N.Z. Co-op. Auckland	217	14.8	14.74	14.5	13
Thames Valley	32	2.2	1.85	3.3	3
Hamilton	60	4.1	7.15	4.4	4
Western Bay of Plenty	34	2.3	2.56	3.3	3
Rotorua	34	2.3	2.30	2.2	2
Tokoroa	25	1.7	1.95	2.2	2
Gisborne	24	1.6	1.73	2.2	2
Hawkes Bay	75	5.1	5.17	4.5	4
New Plymouth	34	2.3	2.37	2.2	2
Wanganui	31	2.1	1.66	3.3	3
Manawatu	72	4.9	4.12	3.3	3
Wellington	170	11.7	12.44	11.1	10
North Island	1,006	68.5	73.33	67.7	61
Nelson	41	2.8	2.46	3.3	3
Canterbury D.F. Christchurch	141	9.6	10.84	8.9	8
Metropolitan Milk Christchurch	44	3.0	2.38	4.5	4
South Canterbury	34	2.3	2.02	2.2	2
Dunedin	121	8.2	4.97	6.7	6
Southland	82	5.6	4.00	6.7	6
South Island	463	31.5	26.67	32.3	29
New Zealand	1,469	100.0	100.0	100.0	90

*The names of producer associations have been abbreviated here; refer to Appendix A for full names.

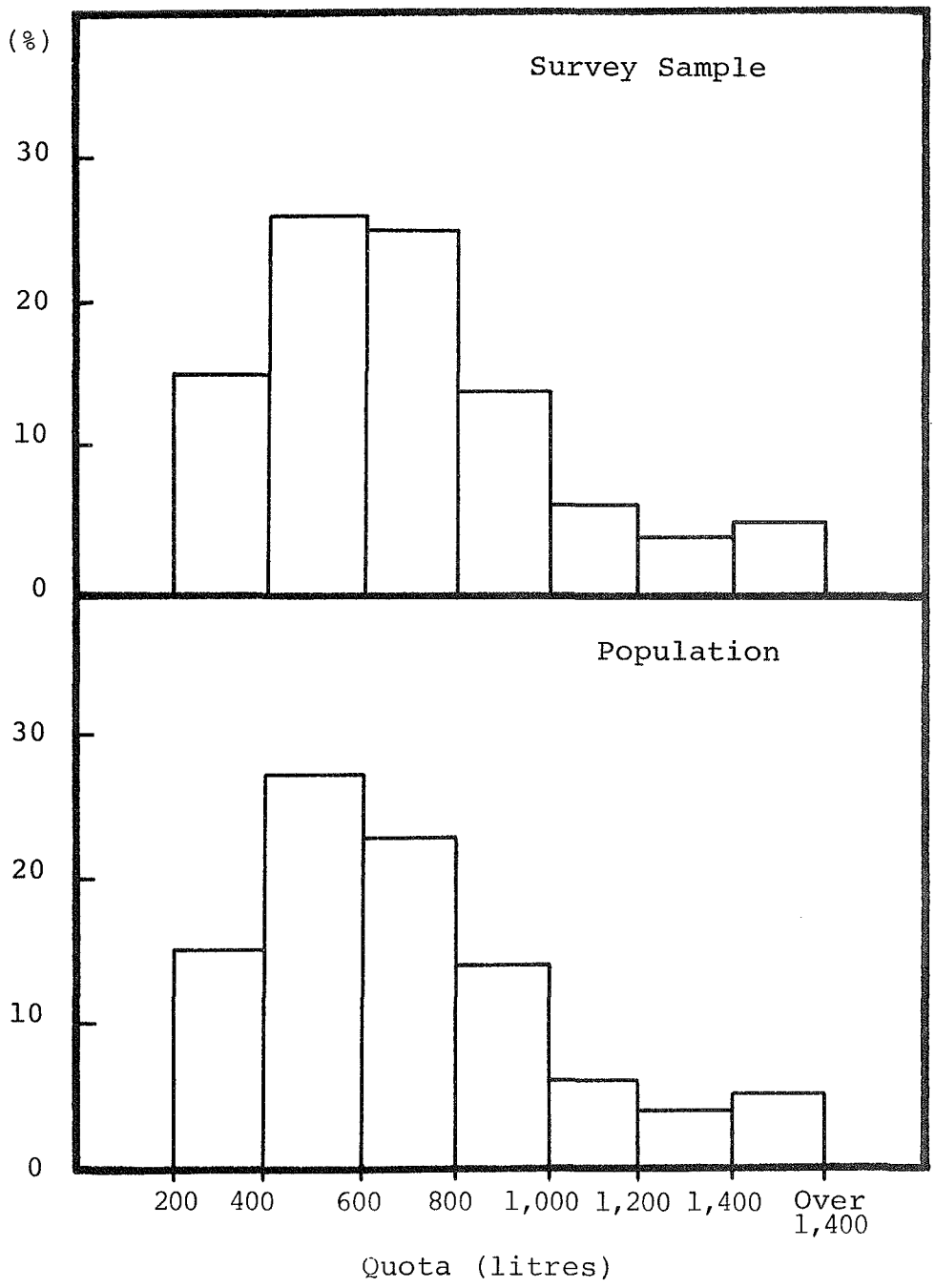
TABLE 6

Distribution of Sample by Quota Group

Quota Group (litres)	New Zealand		North Island		South Island	
	No.of farms	%	No.of farms	%	No.of farms	%
200 - 400	14	15.6	9	14.7	5	17.2
401 - 600	24	26.7	12	19.7	12	41.4
601 - 800	23	25.5	18	29.5	5	17.2
801 - 1000	14	15.6	10	16.4	4	13.8
1001 - 1200	6	6.7	5	8.2	1	3.5
1201 - 1400	4	4.4	2	3.3	2	6.9
over 1400	5	5.5	5	8.2	0	0
Total	90	100.0	61	100.0	29	100.0

FIGURE 1

DISTRIBUTION OF MILK SUPPLIERS BY QUOTA GROUP



If a farm selected for the survey did not meet all criteria at the time of the field interview, a randomly selected back-up farm in the same quota group was substituted. To obtain the final sample of 90 farms, a total of 100 farmers were contacted by the field officer.

The main reasons for farms being dropped from the sample at the field interview stage were:-

(i) The producer had changed his mind regarding participation in the survey or was unavailable for interview.

(ii) The farm had not been producing town milk for the entire 12 month period.

2.2. Data Collection and Assembly

Field work commenced in May 1976 and was completed by September 1976.

To maintain uniformity and continuity of the survey, the manual of procedures as introduced by the New Zealand Milk Board and the Town Milk Producers' Federation of New Zealand (Inc.) was followed. Appendix B gives details of definitions, procedures and imputed values utilised.

A set of farm working accounts for the 1974/75 financial year was obtained from the farmer or his accountant. Milk production records for the farms surveyed were compiled from records of producer associations. Accounts of farms employing managers were adjusted to an owner-operated basis. Likewise, partnerships and family companies were treated as owner operated farms by assuming one of the partners (members) as owner, and the other(s) as employee(s), provided they were engaged in farm work.

All financial and production data collected referred to the farm's financial year. Table 7 shows the distribution of farm account balance dates among the surveyed farms. It can be seen that two thirds of all balance dates were March 31st 1975.

TABLE 7

Distribution of Account Balance Dates in Sample

	Per Cent Farms with Balance Dates Falling on:-						
	March 31	April 30	May 31	June 30	July 31	August 31	Total
North Is.	67	0	18	10	0	5	100
South Is.	66	10	7	17	0	0	100
New Zealand	67	3	15	12	0	3	100

Financial results for the survey farms were derived largely from the farm accounts. Most of the farm accounts collected on the survey showed sufficient breakdown of expenses, revenues and other financial data. In cases where there was insufficient detail, it was necessary to ask the farmer for clarification. In some instances, further details or confirmation were sought from the accountant.

Where possible, data was transferred directly from the farm accounts to the relevant income and expenditure categories on the assembly form. Trade discounts, subsidies, and allowances for personal use were deducted from the appropriate expense item before entry. Development expenditure was isolated and deducted from the relevant expense items where appropriate.

A complete list of all survey definitions is given in Appendix B.

A statistical package* was used to process all data on the Burroughs 6,700 computer of the University of Canterbury.

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*A statistical package for the Social Sciences (S.P.S.S.). This is a statistical package of computer programmes developed at Stanford University and supported by Social Science Data Service of the Institute of Government Affairs at the University of California, Davis, U.S.A.

3. PHYSICAL AND PRODUCTION DATA

3.1. Physical Characteristics of Farms

3.1.1. Farm Area

Table 8 shows both the average total area and average productive area of town supply farms including run-off units. Productive area is defined as the total farm area less waste areas. A fuller definition of productive area is given in Appendix B.

Table 8 also shows an estimate of the average total productive area used for milk production. To arrive at this estimate, it was necessary to subtract an estimate of the productive area of the farm that was not used for dairying. Also, because 43 per cent of the surveyed farms 'grazed out' stock on other farms during the survey year, it was necessary to add an estimate of the 'grazing out' area utilised to the net productive dairying area. Six months appeared to be the average 'grazing out' period for these farms; thus the average 'grazing out' area was divided by two and added to the productive dairying area of each farm.

TABLE 8

Average Area of Town Supply Farms

	New Zealand (ha)	North Island (ha)	South Island (ha)
Average total area	82.41	83.45	80.22
Unproductive area	9.26	9.34	9.10
Productive area	73.15	74.11	71.12
Estimated non-dairying area	4.60	4.00	5.80
Estimated 'grazing out' area	6.19	6.76	5.00
Estimated productive area* utilised for milk production	74.74	76.87	70.32

*hereafter abbreviated to dairy productive hectares.

3.1.2. Run-Off Units

Thirty-eight per cent of the surveyed farms included run-off units. These units were primarily used for grazing young stock and were situated from 5-20 kilometres away from the home farm. Approximately half of the run-off units were rented under short-term agreements. Table 9 gives the average area of run-off units on those farms with run-offs together with the proportions of different types of tenure of the run-offs.

TABLE 9

Run-Off Units

	New Zealand	North Island	South Island
Proportion of farms with run-offs (%)	38	44	24
Area of run-off units (ha/farm)	35.2	37.4	26.5
Tenure of run-off units:			
short term lease (%)	41	45	29
freehold (%)	50	45	71
Crown or Maori lease (%)	9	10	0
TOTAL (%)	100	100	100

3.1.3. Land Use

Table 10 gives a brief summary of land use on the 90 surveyed farms.

TABLE 10

Utilisation of Farm Area

Land Use	New Zealand	North Island	South Island
Proportion of Farm Area under:	%	%	%
Dairy pasture	78	80	72
Forage crops	6	4	9
Sheep and beef cattle pasture	5	5	7
Cash crops	0	0	1
Unproductive land	11	11	11
TOTAL	100	100	100

Twenty-three per cent of the surveyed farms had more than 10 sheep or 5 beef cattle grazing throughout the year, but only 7 per cent of farms had more than 100 sheep or 50 beef cattle.

Irrigation use for the 29 South Island farms is reported in Table 11. All farms with irrigation used some form of mechanical irrigation equipment; manual shift irrigators predominated.

TABLE 11

South Island Irrigation

Proportion of South Island farms using irrigation (%)	59
Farms with irrigation:-	
Total farm area (ha/farm)	83
Proportion of farm area irrigated (%)	56
Average operating time for irrigation plant (hours/annum)	1,070

Only 15 per cent of North Island farms owned irrigation equipment and only one farm in the North Island actually irrigated during 1974/75.

3.2. Ownership and Land Tenure

Table 12 shows the distribution of different types of farm ownership. Sole owner operators predominated in the South Island, whereas almost 60 per cent of farms in the North Island were owned by partnerships or other types of multiple ownership.

TABLE 12

Distribution of Different Types of Farm Ownership

Type of farm ownership	New Zealand (% farms)	North Island (% farms)	South Island (% farms)
Individual owner	53.4	42.7	75.8
Partnership:-			
(i) husband-wife	18.9	21.3	13.8
(ii) father - son(s)	2.2	1.6	3.5
(iii) other family	1.1	1.6	0.0
Family company	17.8	23.0	6.9
Trust	3.3	4.9	0.0
Estate	3.3	4.9	0.0
Total	100.0	100.0	100.0

Eighty-eight per cent of the total surveyed land area was held by freehold land title. Land rented from other farmers accounted for 11 per cent of the area with the remaining one per cent held under Crown and Maori leases.

3.3. Labour

Table 13 shows the average number of labour units engaged on the surveyed farms in 1974/75. Proportions of casual and permanent labour and family and non-family labour are also given in Table 13.

All people that were involved in farm work (excluding children under 12 years) were taken into account in assessing the number of labour units engaged on each farm. A labour unit is fully defined in Appendix B.

TABLE 13

Labour Units per Farm

Type of labour	New Zealand	North Island	South Island
Farmer	0.98	0.97	0.99
Permanent family	0.35	0.33	0.40
Casual family	0.07	0.06	0.10
Total family labour units	1.40	1.36	1.49
Permanent non-family	0.51	0.60	0.33
Casual non-family	0.05	0.05	0.07
Total non-family labour units	0.56	0.65	0.40
TOTAL LABOUR UNITS	1.96	2.01	1.89
Proportion of permanent labour (%)	94	95	91
Proportion of family labour (%)	71	68	79

Several measures of labour performance have been examined. Results are presented in Tables 14 and 15.

TABLE 14

Herd Size and Labour Performance

Herd Size (No.cows)	No.of farms	Average herd size (No.cows)	Average No. of labour units (L.U.) engaged per farm	Cows per L.U.	Proportion of non-family labour %
30 - 39	1	33.0	1.25	26.4	0
40 - 59	13	50.5	1.29	39.2	8.5
60 - 79	20	68.9	1.64	42.0	10.2
80 - 99	18	87.4	1.88	46.5	24.0
100 - 119	14	109.0	1.96	55.7	26.6
120 - 149	12	123.5	2.28	58.7	41.5
150 - 199	6	166.8	2.48	67.3	54.5
200 - 249	4	232.3	3.74	62.1	57.5
250 - 299	2	274.5	3.22	85.2	69.7
TOTAL	90	102.3	1.96	52.0	28.6

TABLE 15

Milk Output per Labour Unit

No. of labour units per farm	No. of farms	Average herd size (No.cows)	Average milk production per labour unit (l)
1 to 1.25	17	65	202,845
1.26 to 1.50	17	83	218,234
1.51 to 1.75	11	85	184,398
1.76 to 2.00	15	98	169,233
2.01 to 2.50	10	112	183,335
2.51 to 3.00	12	131	179,398
over 3.00	8	201	191,760
Total	90	102	188,577

3.4. Milk Production

Milk production relates to each supplier's income year. Details of milk production on the surveyed farms are given in Table 16. Table 17 gives the proportion of milk sold as surplus to factories by quota and by herd size.

TABLE 16

Milk Production

	New Zealand	North Island	South Island
Daily quota (litres/farm)	728	772	637
Milk production sold for town suppy (l/farm)	296,003	317,078	251,671
Milk Production sold for factory supply (l/farm)	73,608	73,735	73,340
Total milk production (l/farm)	369,611	390,813	325,011
Proportion of total production sold for town supply (%)	80.1	81.1	77.4
Proportion of total production sold for factory supply (%)	19.9	18.9	22.6
Average herd size (No.cows)	102.3	114.2	77.5

Contd.

TABLE 16 contd.

		New Zealand	North Island	South Island
Milk Production:-	(l/cow)	3,611	3,434	4,193
" "	(l/prod.ha)	5,053	5,273	4,570
" "	(l/dairy prod ha.)	4,945	5,084	4,622
" "	(l/labour unit)	188,577	194,434	171,963
" "	(l/farm/day)	1,013	1,071	890

TABLE 17

Proportion of Total Milk Production Sold as Surplus by Quota Group and Herd Size

Quota Group (litres)	Proportion of total milk production sold as surplus (%)	Herd Size (No.cows)	Proportion of total milk production sold as surplus (%)
200 - 400	28.4	30 - 39	5.5
401 - 600	26.6	40 - 59	24.9
601 - 800	17.9	60 - 79	13.4
801 - 1000	18.9	80 - 99	21.0
1001 - 1200	17.4	100 - 119	20.5
1201 - 1400	13.9	120 - 149	24.4
Over 1400	15.5	150 - 199	21.0
		200 - 249	12.3
		250 - 299	28.5
New Zealand	19.9	New Zealand	19.9

4. FINANCIAL DATA

4.1. Introduction

Most information contained in this section is presented in the form of tables in which averages are given on a per farm, per cow, per dairy productive hectare and on a per litre of total milk produced basis. Relative standard errors of selected variables are given in Appendix C.

Due to the small sample involved, the reader should be careful when comparing results between North and South Islands. Analyses of financial data by quota group and herd size is given in Appendices D and E respectively. Survey results of previous years are given in Appendix F.

4.2. Capital Structure

Tables 18 and 19 give the value of farm assets, and liabilities and net worth. The average value of all farm assets was $203,724 per farm which represented an increase of approximately 21 per cent over the 1973/74 survey. Most of this increase was due to an increase in land values; the value of all livestock declined by six per cent from the previous year, thus reflecting the lower market realisations for stock in 1974/75.

TABLE 18 Capital Structure - Value of all Assets, 1974/75

	New Zealand				North Island				South Island			
	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.
ASSETS	$	$	$	cents	$	$	$	cents	$	$	$	cents
Land	159,295	1556	2,131	43.10	163,182	1,429	2,123	41.75	151,121	1,952	2,149	46.50
Improvements	1,116	11	15	0.30	1,192	10	15	0.30	955	12	14	0.29
Farmer's house	2,252	22	30	0.61	2,344	21	30	0.60	2,060	27	29	0.63
Other farm houses	4,141	41	55	1.12	3,850	34	50	0.99	4,753	61	68	1.46
Farm buildings	6,822	67	91	1.85	5,863	51	76	1.50	8,839	114	126	2.72
Plant & equip.	4,611	45	62	1.25	4,230	37	55	1.08	5,412	70	77	1.67
Farm vehicles	4,379	43	59	1.18	5,219	46	68	1.34	5,716	74	81	1.76
Dairy stock	18,060	177	242	4.89	19,654	172	256	5.03	14,707	190	209	4.53
Other stock	387	4	5	0.10	288	3	4	0.07	595	8	8	0.18
Company shares	801	8	11	0.22	700	6	9	0.18	1,013	13	14	0.31
Working capital	1,860	18	25	0.50	1,952	17	25	0.50	1,668	22	24	0.51
Total farm assets	203,724	1,992	2,726	55.12	208,474	1,826	2,712	53.34	196,839	2,542	2,799	60.56
Sundry Debtors	1,685	17	23	0.46	1,666	15	22	0.43	1,725	22	25	0.53
Cash at Bank etc.	2,170	21	29	0.59	2,382	21	31	0.61	1,856	24	26	0.57
Total all assets	207,579	2,030	2,778	56.17	212,522	1,862	2,765	54.38	200,420	2,588	2,850	61.66

TABLE 19 Capital Structure - Liabilities and Net Worth, 1974/75

LIABILITIES	New Zealand				North Island				South Island			
	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.
	$	$	$	cents	$	$	$	cents	$	$	$	cents
Current liabilities	6,461	63	86	1.75	6,905	60	90	1.77	5,527	71	79	1.70
Fixed liabilities	35,987	353	482	9.74	34,620	303	450	8.86	38,867	502	552	11.96
Total liabilities	42,448	416	568	11.49	41,525	364	540	10.63	44,394	573	631	13.66
Specific Reserves etc.	6,000	58	80	1.62	6,520	57	85	1.67	4,900	63	70	1.51
Capital (Net worth)	159,131	1,555	2,130	43.06	164,477	1,441	2,140	42.08	151,126	1,952	2,149	46.50
Total	207,579	2,029	2,778	56.17	212,522	1,862	2,765	54.38	200,420	2,588	2,850	61.67

4.3. Gross Farm Revenue

Table 20 gives the sources of revenue on the surveyed farms. Milk sales contributed 91.6 per cent of gross revenue. Revenue from other sources was not significant on farms with small quotas. There was a significant decline in the livestock trading profit from the previous survey, mainly as a result of the lower market realisations for livestock.

Gross farm revenue increased by 6.8 per cent over the 1973/74 survey.

TABLE 20 Gross Revenue, 1974/75

GROSS REVENUE	New Zealand				North Island				South Island			
	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.
	$	$	$	cents	$	$	$	cents	$	$	$	cents
Milk sales	35,098	343.09	469.60	9.51	36,993	323.99	481.24	9.47	31,112	401.44	442.43	9.57
Produce sold	219	2.14	2.93	0.06	186	1.63	2.42	0.05	288	3.72	4.10	0.09
Wool & skins sold	76	0.74	1.02	0.02	54	0.47	0.70	0.01	121	1.56	1.72	0.03
Contracting	298	2.91	3.99	0.08	380	3.33	4.94	0.10	125	1.61	1.78	0.04
Rent & lease fees	233	2.28	3.12	0.06	259	2.27	3.37	0.07	178	2.30	2.53	0.05
Employees house	609	5.95	8.15	0.16	718	6.29	9.34	0.18	379	4.89	5.39	0.12
Livestock profit	1,708	16.70	22.85	0.46	1,518	13.29	19.75	0.39	2,108	27.22	29.98	0.65
Other revenue	87	0.85	1.16	0.02	86	0.75	1.12	0.02	89	1.15	1.27	0.03
Gross Revenue	38,328	374.66	512.82	10.37	40,194	352.02	522.88	10.29	34,400	443.89	489.20	10.58

4.4. Farm Expenditure

Table 21 gives a breakdown of farm expenses into five major categories. Labour expenses were similar to the 1973/74 survey, but approximately four per cent less labour was engaged on the surveyed farms in 1974/75. Operating expenses increased by about nine per cent over 1973/74. Contracting, veterinary, breeding and herd testing, and vehicle expenses were the items that increased most significantly. Feed expenses remained about the same as in 1973/74 although less feed was used due to the better growing conditions in 1974/75. Fertiliser, lime and seed expenses also remained at about the same level. Other expenses that increased significantly were general administration, insurance, rates and interest paid.

Total farm expenditure increased by 5.8 per cent over the 1973/74 survey. The survey results on herd structure and use of herd testing are given in Appendix G, while Appendix H gives the distribution of shed types and effluent disposal systems. Supplementary feed usage is summarised in Appendix I.

TABLE 21 Farm Expenditure, 1974/75

EXPENSES	New Zealand				North Island				South Island			
	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.
	$	$	$	cents	$	$	$	cents	$	$	$	cents
LABOUR												
Family Labour	1,153	11.30	15.43	0.31	943	8.26	12.27	0.24	1,593	20.57	22.65	0.49
Family Casual Labour	224	2.20	3.00	0.06	253	2.22	3.29	0.06	162	2.09	2.30	0.05
Non Family Labour	2,491	24.42	33.33	0.67	3,075	26.93	40.00	0.79	1,263	16.31	17.96	0.39
Non Family Casual Labour	230	2.25	3.08	0.06	207	1.81	2.69	0.05	278	3.59	3.95	0.09
Unpaid Family Labour	491	4.81	6.57	0.13	566	4.96	7.36	0.14	334	4.31	4.75	0.10
Labour Accommodation	804	7.88	10.76	0.22	876	7.67	11.40	0.22	652	8.42	9.27	0.20
Sub-total Labour	5,393	52.86	72.17	1.45	5,920	51.85	77.01	1.50	4,282	55.29	60.88	1.32
OPERATING												
Contracting	775	7.60	10.37	0.21	777	6.81	10.11	0.20	770	9.96	10.96	0.24
Animal Health	562	5.51	7.52	0.15	635	5.56	8.26	0.16	408	5.27	5.80	0.13
Breeding & Herd Testing	330	3.24	4.42	0.09	373	3.27	4.85	0.10	239	3.09	3.40	0.07
Shed Expenses	425	4.17	5.69	0.11	427	3.74	5.55	0.11	420	5.42	5.97	0.13
Power	430	4.22	5.75	0.12	471	4.12	6.13	0.12	343	4.43	4.88	0.11

Contd.

TABLE 21 (Continued) Farm Expenditure, 1974/75

	New Zealand				North Island				South Island			
EXPENSES CONTD.	Per farm	Per cow	Per dairy prod.ha.	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha.	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha.	Per litre milk prod.
	$	$	$	cents	$	$	$	cents	$	$	$	cents
Feed	2,597	25.46	34.75	0.70	2,852	24.98	37.10	0.73	2,059	26.57	29.28	0.63
Fertiliser & Seed	2,070	20.29	27.70	0.57	2,354	20.62	30.62	0.60	1,473	19.01	20.95	0.45
Weed & Pest Control	188	1.84	2.52	0.05	221	1.94	2.87	0.06	120	1.55	1.71	0.04
Vehicle Exps.	1,749	17.15	23.40	0.47	1,692	14.82	22.01	0.43	1,868	24.10	26.56	0.57
Grazing Exps.	391	3.83	5.23	0.11	495	4.34	6.44	0.13	172	2.22	2.45	0.05
Freight	381	3.74	5.10	0.10	325	2.85	4.23	0.08	497	6.42	7.07	0.15
Repairs & Maintenance	1,807	17.72	24.18	0.49	1,707	14.95	22.21	0.44	2,017	26.05	28.68	0.62
Irrigation Exps.	128	1.25	1.71	0.03	0	0.0	0.0	0.0	396	5.11	5.63	0.12
Sub total Operating	11,833	116.02	158.34	3.20	12,329	108.00	160.38	3.16	10,782	139.20	153.34	3.31
Total Labour and Operating	17,226	168.88	230.51	4.65	18,249	159.85	237.39	4.66	15,064	194.49	214.22	4.63
ADMINISTRATION												
Accountancy	235	2.30	3.14	0.06	252	2.21	3.28	0.06	199	2.57	2.83	0.06
Telephone	179	1.75	2.39	0.05	180	1.58	2.34	0.05	177	2.29	2.52	0.05
General Administration	380	3.73	5.08	0.10	328	2.87	4.27	0.08	490	6.33	6.97	0.15

Contd.

TABLE 21 (Continued) Farm Expenditure, 1974/75

EXPENSES CONTD.	New Zealand				North Island				South Island			
	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.
	$	$	$	cents	$	$	$	cents	$	$	$	cents
Sub-total Administration	794	7.78	10.61	0.21	760	6.66	9.89	0.19	866	11.19	12.32	0.26
OVERHEADS												
Insurance	368	3.61	4.92	0.10	355	3.11	4.62	0.09	398	5.14	5.66	0.12
Interest	2,766	27.12	37.01	0.75	2,785	24.39	36.23	0.71	2,726	35.21	38.77	0.84
Rates	634	6.22	8.48	0.17	659	5.77	8.57	0.17	581	7.50	8.26	0.18
Rent	550	5.39	7.36	0.15	667	5.84	8.68	0.17	305	3.94	4.34	0.10
Sub-total Overheads	4,318	42.34	57.77	1.17	4,466	39.11	58.10	1.14	4,010	51.79	57.03	1.24
Total Cash Exps.	22,338	219.00	298.89	6.03	23,475	205.62	305.38	5.99	19,940	257.47	283.57	6.13
Net Depreciation	2,358	23.12	31.55	0.65	2,236	19.58	29.09	0.57	2,623	33.88	37.30	0.81
Total Expenditure	24,696	242.12	330.44	6.68	25,711	225.20	334.47	6.56	22,563	291.35	320.87	6.94

4.5. Net Farm Income

Table 22 gives the net farm income based on interest actually paid as well as on imputed interest rates. Interest actually paid by farmers averaged 1.4 per cent of the value of farm assets (Table 18). Imputed interest rates of 3.5, 5, 7 and 10 per cent were applied to the total value of farm assets. These interest values were substituted in place of the actual interest paid in the farm expenses.

The average net farm income (interest paid basis) for New Zealand in 1974/75 increased by eight per cent over the 1973/74 survey. North Island producers had the more significant increase in incomes. Net farm income based on a five per cent imputed interest rate declined by 7.7 per cent from that of the previous survey, thus showing the effect of the increase in land values.

In keeping with previous policy, a value for the farmer's labour and management has not been imputed.

TABLE 22 Net Farm Income, 1974/75

	New Zealand				North Island				South Island			
A. Net Income Based On Interest Paid	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.	Per farm	Per cow	Per dairy prod.ha	Per litre milk prod.
	$	$	$	cents	$	$	$	cents	$	$	$	cents
Gross Farm Revenue	38,328	374.66	512.82	10.37	40,194	352.02	522.88	10.29	34,400	443.89	489.20	10.58
Total Expenditure	24,696	242.12	330.44	6.68	25,711	225.20	334.47	6.56	22,563	291.35	320.87	6.94
Net Income	13,632	132.54	182.38	3.69	14,483	126.82	188.41	3.73	11,837	152.54	168.33	3.64
B. Net Income Based On Imputed Interest Rates												
with 3.5% interest	9,268	90.60	124.00	2.51	9,972	87.34	129.73	2.55	7,674	99.02	109.13	2.36
with 5.0% interest	6,212	60.72	83.11	1.68	6,845	59.94	89.05	1.75	4,721	60.92	67.14	1.45
with 7.0% interest	2,137	20.89	28.59	0.58	2,675	23.42	34.80	0.68	785	10.13	11.32	0.24
with 10.0% interest	-3,974	-38.85	-53.17	-1.08	-3,578	-31.34	-46.55	-0.92	-5,121	-66.08	-72.82	-1.58

4.6. Relative Importance of Principal Revenue and Expenditure Components

The relative importance of the principal revenue and expenditure components are detailed in Table 23.

TABLE 23

Revenue and Expenditure Components

	New Zealand	North Island	South Island
Gross Revenue:	%	%	%
Milk Sales	91.6	92.0	90.3
Livestock Profit	4.4	3.8	6.2
Other Revenue	4.0	4.2	3.5
Total	100.0	100.0	100.0
Expenditure:			
Labour	21.8	23.0	19.0
Operating	47.9	47.9	47.4
Administration	3.2	3.0	3.8
Overheads	17.5	17.4	18.2
Depreciation	9.6	8.7	11.6
Total	100.0	100.0	100.0
Expenditure: Revenue Ratio(%)	64.6	63.9	66.3

4.7. Revenue and Expenditure per ha of Total Farm Area

The principal revenue and expenditure components per ha of total farm area are expressed in Table 24.

TABLE 24

Revenue and Expenditure per ha of Total Farm Area

	New Zealand per ha	North Island per ha	South Island per ha
	$	$	$
Milk Sales	425.89	443.30	387.83
Livestock Profit	20.73	18.19	26.28
Other Revenue	18.47	20.16	14.71
Gross Revenue	465.09	481.65	428.82
Labour	65.44	70.94	53.38
Operating	143.59	147.74	134.41
Administration	9.63	9.11	10.80
Overheads	52.40	53.52	49.99
Depreciation	28.61	26.79	32.70
Total Expenditure	299.67	308.10	281.28
Net Farm Income	165.42	173.55	147.54

5. SUMMARY AND CONCLUSIONS

The information presented in this Report has been prepared primarily for the N.Z. Milk Board and the Federation of Town Milk Producers of N.Z. (Inc.). The Report forms a continuing set of statistics on the costs and incomes of town supply producers in New Zealand. The 1974/75 survey conclusions are briefly summarised as follows:

(i) Physical and Production Aspects

Since 70 percent of the surveyed farms were also included in the 1973-74 survey, many of the physical characteristics of the surveyed farms were similar to those reported in the 1973/74 Report. Total productive farm area, type of tenure and ownership, herd size, land use and the number of labour units engaged per farm remained about the same as in 1973-74. Total milk production per farm increased by 3.5 percent over 1973/74. This increase probably was due partly to the more favourable climatic conditions and the small increases in quota and herd size. Daily quotas increased from 682 to 728 litres (6.74%); most of the quota increases occurred in the North Island.

Milk production per cow on South Island farms was 23 percent greater than farms in the North Island. However, milk production per productive dairying hectare was 10 percent lower in the South Island than in the North Island.

Approximately 80 percent of all milk produced was used for town supply; this was a little more than in the previous year. Farms with larger quotas tended to sell higher proportions of milk at town milk prices; however, there appeared to be no fixed pattern in the proportion of milk sold at town milk prices as herd size increased.

Half of the farms used herd testing during 1974/75; principal users were farms with large quotas. Milk production per cow was significantly greater on the farms where herd testing was used.

The average amount of labour that was engaged in farm work was 1.96 labour units, compared with 2.03 units in 1973/74. Non-family labour only accounted for 29 percent of all farm labour used on the surveyed farms. The average milk output per labour unit was 188,577 litres, an increase of 7.2 percent over the previous year.

The average milk production per labour unit was lowest on farms with a labour input of 1.76 to 2.0 labour units. The maximum milk output per labour unit occurred on farms with 1.26 to 1.50 labour units.

(ii) Financial Aspects

The average net farm income for the 90 surveyed farms for the year ending March 31st 1975 was $13,632. The net farm income for North Island farms was $14,483 and for South Island farms $11,837. The comparable figures for the 1973/74 survey were $12,524, $12,804 and $11,948. With a five percent imputed interest charge allowed on the value of farm assets in place of interest paid, the net farm income for New Zealand was $6,212, North Island $6,845, and South Island $4,721.

Comparing 1973/74 and 1974/75 surveys, gross farm revenue increased from $35,875 to $38,328 and total farm expenditure from $23,351 to $24,696.

Milk sales accounted for 91.5 percent of gross farm revenue. Livestock trading profit was $1,708 per farm, compared with $3,130 in 1973/74.

Labour expenses were similar to 1973/74, but approximately four percent less labour was engaged in 1974/75. Operating expenses increased by nine percent over 1973/74. Contracting, veterinary, vehicle expenses, breeding and herd testing fees were operating expenses that increased most significantly. Other expenses that increased were general administration, insurance, rates and interest paid.

The average value of farm assets was $203,724 per farm, which represented an increase of approximately 21 percent over the 1973/74 survey. Most of this increase was due to an increase in land values. The value of all livestock declined by six per cent from the previous year, thus reflecting the lower market realisations for livestock during 1974/75. The value of all assets, inclusive of sundry debtors and cash in current accounts was $207,579. The extimated net worth of the surveyed farms was $159,131.

Total liabilities per farm increased from $34,926 to $42,448, a 21.5 percent increase.

No attempt has been made in this Report to draw any conclusions on the differences in profitability between North and South Island farms or whether an increase in town milk price is justifiable. The analyses have been carried out primarily to meet the basic objective of the survey, namely the determination of an average net farm income for each Island and New Zealand as a whole.

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The Agricultural Economics Research Unit gratefully acknowledges the co-operation and assistance willingly provided by officers of the New Zealand Milk Board, Town Milk Producers' Federation of New Zealand (Inc.), and Milk Producer Companies. In particular, thanks are expressed to the individual town milk producers for co-operating in the survey and making the information contained in accounts so freely available.

APPENDIX A

PRODUCER ASSOCIATIONS INCLUDED IN SURVEY

North Island

Whangarei Milk Marketing Co. Ltd.
North Shore Co-op Milk Producers Ltd.
Auckland Co-op Milk Producers Ltd.
The New Zealand Co-op Dairy Co. Ltd. (Ambury's) Auckland.
Thames Valley Milk Producers Ltd.
Hamilton Milk Producers Ltd.
Western Bay of Plenty (Co-op) Milk Producers Ltd. Tauranga.
Rotorua Co-op Milk Producers Co. Ltd.
Tokoroa Co-op Milk Producers Co. Ltd.
Gisborne Co-op Milk Producers Assn. Ltd.
Hawke's Bay Milk Producers Co-op Ltd.
New Plymouth Town Milk Co-op Ltd.
Wanganui Co-op Milk Supply Co. Ltd.
Manawatu Milk Producers Co. Ltd.
Wellington Dairy Farmers Co-op Assn. Ltd.

South Island

Nelson Co-op Milk Producers Assn. Ltd.
Canterbury Dairy Farmers Ltd.
Metropolitan Milk Ltd.
South Canterbury Co-op Milk Supply Co. Ltd. (Timaru).
Dunedin Dairy Farmers Co-op Milk Supply Co. Ltd.
Southland Co-op Milk Producers Assn. Ltd. (Invercargill).

SOURCE: N. Z. Milk Board, 22nd Annual Report,1975.

APPENDIX B

SURVEY DEFINITIONS AND TREATMENT OF DATA

The same basic survey principles and procedures have been adopted as in surveys of previous years. The following definitions and principles were adopted in extracting and assembling data from each farm:

TOTAL FARM AREA: This was the total area farmed by the producer during the 1974-75 financial year. It included rented land and run-off units, but did not include any 'grazing out' land.

PRODUCTIVE FARM AREA: The productive area of the farm included that land to which stock had regular access. It was the area grazed by stock plus the area in roads, yards, races and farm buildings. The productive area of run-off units was also included. Areas under swamp, steep gullies, riverbeds and dense bush were excluded.

PRODUCTIVE FARM AREA USED FOR DAIRY STOCK: This was the estimated total productive area of land used for pasture and fodder production for dairy stock grazing during the income year. The average period of grazing out stock on other farms appeared to be six months. The average grazing out area of all farms was divided by two to convert it to an annual basis; this was then added to the productive dairying area of each farm.

RUN-OFF UNITS: Run-off units were land areas separated from the main farm and were mainly used to rear young dairy stock or carry other stock from time to time. Run-off units were included in total farm area.

LABOUR UNIT: A labour unit was defined as a worker, whether owner or employee, who worked on the farm full time over the survey period. Fractional units of labour were used when including work carried out on a part year or part time basis. Any work carried out by children under 12 years was ignored. Cadet and student workers were assessed according to the amount of useful work carried out.

VALUE OF LABOUR UNIT: A standard wage of $4,600 per annum, with or without the provision of a house, was assumed for the imputed wage of male workers over 17 years; for women, and youths (12-17), imputed wages assumed were $4,000 per annum. The standard wage used in the

1973-74 survey was $4,000 per annum and the wage used for women and youths was $3,700 per annum.

UNPAID LABOUR: Any unpaid family labour was assessed and valued. Wives and other partners in the farm business were the principal sources of unpaid labour.

HOUSE RENT FOR EMPLOYEES: Where a house was provided by the farmer for an employee (including other family members), the rental was assumed to be a fair rental for the district. The average rental was $23 per week.

FULL BOARD AND LODGING: This was assessed at $15 per week per person; this represented an increase of $5 per week compared with the previous survey.

PRODUCE USED: A figure of $150 per annum for produce used per full time married labour unit was adopted to cover milk, meat, vegetables and firewood used. This allowance was not extended to the owner or members of the farm family. The value of produce used was included in labour accommodation expenses. The 1973-74 value for produce used was $120.

LAND VALUES: The most recent Government valuation for each land assessment was obtained. The Valuation Department's "Farmland Sales Price Index" (base year 1960) was used to update all land assessments to 1975 values. To obtain a value for land only, the total opening book value of all farm buildings was deducted from the "updated" capital value of the farm.

DEPRECIATION OF FARM BUILDINGS: The opening book values of all farm buildings were used to determine depreciation. Ordinary depreciation rates were applied (i.e. no special depreciation allowances) to the book values. The normal 2.5 per cent depreciation rate was applied to opening book values of all houses on the farm except that rates were applied to only one quarter of the book value of the farmer's dwelling.

DEPRECIATION OF OTHER ASSETS: Depreciation on all other capital items was based on rates used for taxation purposes. All personal allowances for depreciation (e.g. motor car), were deducted from the gross depreciation and vice versa if a loss was incurred.

WORKING CAPITAL: Working capital was calculated by dividing the total cash expenses on each farm by 12. Hence, cash expenses for a month were considered equivalent to the annual working capital for the farm.

DEVELOPMENT EXPENDITURE: Certain capital expenditures may be treated as expenses for income tax purposes. The deduction of these expenses for tax purposes may be deferred, either in whole or in part, for up to nine years, and includes, inter alia, expenditures on the following:

(i) Eradication of animal and vegetable pests
(ii) Construction of fences
(iii) Construction of roads, access tracks, and topdressing landing strips
(iv) Sinking of bores and the construction of dams
(v) Swamp drainage.

Fertiliser expenditure may also be deferred for up to four years. All development expenditure that was included in the farm operating expenses was isolated and deducted from the relevant expenditure item, and added to the land values.

QUOTA: This was the average daily quota per farm for the 1974-75 income year.

STANDARD VALUES USED IN THE VALUATION OF LIVESTOCK: Numbers of dairy stock in the various classes were determined partly from the farm accounts and partly from discussions with the farmer. The following standard values per head were applied to the various classes of stock:

All Cows	$125	Bull Calves	$ 20
Heifers-in-Calf	$100	Bulls	$200
Heifers	$ 80	All Sheep	$ 5
Yearlings	$ 50	All Beef Cattle	$100
Calves	$ 20		

INCOME:

Total Milk Sales: The value of all milk sales was extracted from each set of accounts.

Produce Sold: Proceeds from the sale of cereal, seed, fruit or fodder crops.

Wool and Skins: Proceeds from the sale of these items.

Contracting: Gross proceeds from contracting work undertaken by the farmer or his employees, e.g. fencing, hay baling, bulldozing etc.

Rent and Lease Fees: Grazing fees and rent received from farm cottages or land.

Employees House and Produce: This was calculated as the sum of the annual imputed rental value of the farm employee's house and the $150 per annum allowance for married non-family permanent workers for produce used.

Livestock Profit: Net profit from the livestock trading accounts.

Other: Sale of timber, posts, and sundry items, and interest from Dairy Company shares and investments.

Gross Revenue: Sum of all the above income items. Private income has not been assessed.

EXPENDITURE:

Family Labour: Wages paid to permanent family members.

Family Casual Labour: Wages paid to all family members for casual work during the year. Wives that were only involved occasionally in farm work, but who claimed wages for taxation purposes were included in this category.

Non-Family Labour: Wages paid to permanent non-family members.

Non-Family Casual Labour: Wages paid for relief milking, casual feeding, hay making etc.

Unpaid Family Labour: The value of unpaid family labour was assessed as follows:

Men & Youths over 17 years of age: $1.75 per hour (increased from $1.50 in 1973/74)

12-17 year old youths, women, and aged people: $1.20 per hour (increased from $1.00 in 1973/74)

Children under 12 years: Nil.

Labour Accommodation: This was calculated as the sum of the imputed rental value of farm cottage(s) per annum and $150 per annum for produce used by non-family permanent worker(s).

Contracting: Payment to contractors for work done, such as bulldozing, fencing, cultivation, hay or silage making and harvesting.

Animal Health: Veterinary fees and drugs.

Breeding and Herd Testing: Artificial breeding, herd testing and pedigree expenses.

Shed Expenses: Rubberware, ropes, buckets, cleansers and miscellaneous items for sheds. Rebates have been deducted where applicable.

Power: Electricity used on the farm and up to one-quarter of the domestic account.

Feed: Purchases of hay, straw, dairy meal, grains, minerals, calf food, dog food and miscellaneous items such as baler twine. Rebates were deducted where applicable.

Fertiliser and Seed: Includes cost of fertiliser and seed, freight and spreading charges. Subsidies and rebates have been deducted.

Weed and Pest Control: Includes cost of materials and spraying work.

Vehicle Expenses: Includes fuel, repairs, licences, registration, insurance and so on for all vehicles. Personal allowances for vehicle running have been deducted where they were shown in accounts.

Grazing Expenses: Grazing fees incurred during the year.

Repairs and Maintenance: Repairs to buildings, plant, fences, water supply, races, etc.

Irrigation Expenses: Repairs to irrigation equipment and imputed values for power and vehicle costs.

Accountancy: Accountancy fees paid.

Telephone: Postage, telephone rentals and tolls.

General Administration: Items not allocated elsewhere. e.g., Farm advisory services, legal fees, subscriptions, travelling expenses and sundry items.

Insurance: General insurance of farm assets: accident compensation levy is included in labour expenses.

Rates: The amounts paid to County Council, Harbour Board, Catchment Board, Rabbit Board or Drainage Board.

Rent: Fees paid for Crown lease or short-term renting. Excludes all internal rents paid to trust and companies etc.

Net Depreciation: Includes all special and ordinary depreciation less personal allowances, plus any loss on sale of an asset and less any profit on sale of an asset.

Total Farm Expenditure: Sum of all the above expenditure items.

Net Farm Income: Gross farm revenue less total farm expenditure.

CAPITAL STRUCTURE:

Average Balance: This is the average of the opening and closing values in accounts.

Cash in Bank etc: Average balance of current accounts for the farm's financial year.

Sundry Debtors: General sundry debtors to the farm account.

Total All Assets: The sum of current and long-term assets.

Current Liabilities: Average balance of general sundry creditors, including amounts owing to stock firms, hire purchase, short-term loans etc.

Long Term Liabilities: Average amount owing on all mortgages and long-term loans.

Specific Reserves: Examples of these are taxation monies, income equilisation and development reserves. The total specific reserves per farm were partly estimated.

Capital (Net Worth): Obtained by subtracting the value of all liabilities and specific reserves from the total value of all farm assets.

APPENDIX C

RELIABILITY OF SURVEY ESTIMATES

Estimates of farm characteristics based on a sample of farms are likely to differ from the estimate which would have been obtained had information been collected from all farms in the population. The differences are called sampling errors and their likely size in percentage terms is called the relative standard error of the estimate. These relative standard erros (R.S.E's) for key variables are given in Table 25.

TABLE 25

Reliability of Survey Estimates

Variable		Average	R.S.E* (%)
Total farm area	(ha)	82.41	7.93
Number of cows	(No.)	102.30	5.32
Total milk production	(l)	369,611	5.19
Gross revenue	($)	38,328	5.26
Total expenditure	($)	24,696	5.85
Net Income	($)	13,632	5.96

*Based on 95% confidence level.

For example: The average area for all sample farms was 82.41 ha, with an R.S.E. of 7.93%. We can be 95% certain that the actual average area of all farms was between 69.61 ha and 95.41 ha.

APPENDIX D SURVEY RESULTS BY QUOTA GROUP

TABLE 26 Capital Structure by Quota Group

	Quota Group (litres)							
	All Quota Groups	200-400	401-600	601-800	801-1000	1001-1200	1201-1400	over 1400
($ per farm)	$	$	$	$	$	$	$	$
Land & Buildings	173,626	94,796	131,910	168,580	231,094	231,651	282,218	315,230
Plant, Vehicles & Livestock	27,437	17,733	22,404	27,312	34,603	34,980	39,871	56,298
Miscellaneous	2,661	1,301	1,997	2,439	3,182	3,809	5,448	5,468
TOTAL ASSETS	203,724	113,830	156,311	198,331	268,879	270,440	327,537	376,996
Current Liabilities	6,461	5,423	5,063	5,639	8,531	8,479	8,481	10,627
Long Term Liabilities	35,987	22,372	32,481	42,716	35,357	42,636	41,930	55,538
(cents per litre total milk produced)	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l
Land & Buildings	46.98	52.53	49.22	48.14	52.28	44.19	45.50	36.60
Plant, Vehicles & Livestock	7.42	9.83	8.36	7.80	7.83	6.67	6.43	6.36
Miscellaneous	0.72	0.72	0.75	0.70	0.72	0.73	0.88	0.62
TOTAL ASSETS	55.12	63.08	58.33	56.64	60.83	51.59	52.81	43.58
Current Liabilities	1.75	3.00	1.89	1.61	1.93	1.62	1.37	1.20
Long Term Liabilities	9.74	12.40	12.12	12.20	8.00	8.13	6.76	6.27

Contd.

TABLE 2.6 (Continued) Capital Structure by Quota Group

	Quota Group (litres)							
	All Quota Groups	200-400	401-600	601-800	801-1000	1001-1200	1201-1400	over 1400
(cents per litre of quota milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Land & Buildings	58.66	73.34	67.03	58.63	64.47	53.50	52.83	42.12
Plant Vehicles & Livestock	9.27	13.72	11.39	9.50	9.65	8.08	10.54	7.52
Miscellaneous	0.90	1.01	1.01	0.85	0.89	0.88	1.01	0.73
TOTAL ASSETS	68.83	88.07	79.43	68.98	75.01	62.46	64.38	50.37
Current Liabilities	2.18	4.20	2.57	1.96	2.38	1.96	1.59	1.42
Long Term Liabilities	12.16	17.31	16.51	14.86	9.86	9.85	7.85	7.42

TABLE 27 Gross Revenue by Quota Group

	All Quota Groups	Quota Group (litres) 200-400	401-600	601-800	801-1000	1001-1200	1201-1400	over 1400
($ per farm)	$	$	$	$	$	$	$	$
Milk Sales	35,098	16,850	24,450	33,977	43,117	50,297	56,062	84,988
Livestock Profit	1,708	666	1,475	1,194	2,433	1,706	5,141	3,343
Other Revenue	1,522	1,055	525	989	3,360	2,591	3,117	2,350
Gross Revenue	38,328	18,571	26,450	36,160	48,910	54,594	64,320	90,681
(cents per litre of total milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Milk Sales	9.50	9.34	9.12	9.70	9.75	9.59	9.04	9.60
Livestock Profit	0.46	0.37	0.55	0.35	0.55	0.33	0.83	0.38
Other Revenue	0.41	0.58	0.20	0.28	0.76	0.49	0.50	0.27
Gross Revenue	10.37	10.29	9.87	10.33	11.06	10.41	10.37	10.25
(cents per litre of quota milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Milk Sales	11.86	13.04	12.43	11.82	12.03	11.62	10.49	11.36
Livestock Profit	0.58	0.52	0.75	0.42	0.68	0.39	0.96	0.45
Other Revenue	0.51	0.82	0.27	0.34	0.94	0.60	0.58	0.31
Gross Revenue	12.95	14.38	13.45	12.58	13.65	12.61	12.03	12.12

TABLE 28 Expenditure by Quota Group

	All Quota Groups	Quota Group (litres) 200-400	401-600	601-800	801-1000	1001-1200	1201-1400	over 1400
($ per farm)	$	$	$	$	$	$	$	$
Labour	5,393	1,936	2,406	4,094	6,704	8,918	15,700	19,221
Operating	11,833	5,870	8,220	12,281	14,471	13,401	17,360	29,333
Administration	794	474	682	740	902	1,080	1,410	1,293
Overheads	4,318	2,230	3,445	4,283	5,088	6,097	5,624	9,123
Depreciation	2,358	1,376	1,885	2,323	3,160	2,840	3,081	3,986
Total Expenditure	24,696	11,886	16,638	23,721	30,325	32,336	43,175	62,956
(cents per litre of total milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Labour	1.46	1.07	0.90	1.17	1.52	1.70	2.53	2.17
Operating	3.20	3.25	3.07	3.51	3.27	2.56	2.80	3.31
Administration	0.21	0.26	0.25	0.21	0.20	0.21	0.23	0.15
Overheads	1.17	1.24	1.28	1.22	1.15	1.16	0.91	1.03
Depreciation	0.64	0.76	0.70	0.66	0.71	0.54	0.50	0.45
Total Expenditure	6.68	6.58	6.20	6.77	6.85	6.17	6.97	7.11
(cents per litre of quota milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Labour	1.82	1.50	1.22	1.42	1.87	2.06	2.94	2.57
Operating	4.00	4.54	4.18	4.27	4.04	3.10	3.25	3.92
Administration	0.27	0.37	0.35	0.26	0.25	0.25	0.26	0.17
Overheads	1.46	1.73	1.75	1.49	1.42	1.41	1.05	1.22
Depreciation	0.80	1.06	0.95	0.81	0.88	0.66	0.58	0.53
Total Expenditure	8.35	9.20	8.45	8.25	8.46	7.48	8.08	8.41

TABLE 29 Net Income by Quota Group

	All Quota Groups	Quota Group (litres) 200-400	401-600	601-800	801-1000	1001-1200	1201-1400	over 1400
($ per farm)	$	$	$	$	$	$	$	$
Gross Revenue	38,328	18,571	26,450	36,160	48,910	54,594	64,320	90,681
Total Expenditure	24,696	11,890	16,638	23,717	30,325	33,196	43,185	62,956
Net Income	13,632	6,681	9,812	12,443	18,585	21,398	21,135	27,725
(cents per litre of total milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Gross Revenue	10.37	10.29	9.87	10.33	11.06	10.41	10.37	10.24
Total Expenditure	6.68	6.59	6.21	6.77	6.85	6.33	6.96	7.11
Net Income	3.69	3.70	3.66	3.56	4.21	4.08	3.41	3.13
(cents per litre of quota milk produced)	c/l	c/l	c/l	c/l	c/l	c/l	c/l	c/l
Gross Revenue	12.95	14.37	13.45	12.58	13.65	12.61	12.03	12.12
Total Expenditure	8.34	9.20	8.45	8.25	8.46	7.68	8.08	8.41
Net Income	4.61	5.17	5.00	4.33	5.19	4.93	3.95	3.71

APPENDIX E

SURVEY RESULTS BY HERD SIZE

TABLE 30 Gross Revenue by Herd Size

	Herd Size Group (No. Cows)								
	30-39	40-59	60-79	80-99	100-119	120-149	150-199	200-249	250-299
($ per farm)	$	$	$	$	$	$	$	$	$
Milk Sales	15,264	17,093	29,526	29,491	34,766	44,458	49,929	80,389	79,315
Livestock Profit	174	550	1,876	1,535	686	2,272	3,596	3,847	3,685
Other Revenue	0	451	689	606	2,714	2,955	1,906	2,512	5,746
Gross Revenue	15,438	18,094	32,091	31,632	38,166	49,685	55,431	86,748	88,746
(cents per litre of total milk produced)	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l
Milk Sales	11.58	9.65	10.20	8.98	9.52	9.31	9.36	9.54	9.31
Livestock Profit	0.13	0.31	0.65	0.47	0.19	0.48	0.67	0.46	0.43
Other Revenue	0.0	0.25	0.24	0.18	0.74	0.62	0.36	0.30	0.67
Gross Revenue	11.71	10.21	11.09	9.63	10.45	10.41	10.39	10.30	10.41

TABLE 31 Expenditure by Herd Size

	Herd Size Group (No. Cows)								
	30-39	40-59	60-79	80-99	100-119	120-149	150-199	200-249	250-299
($ per farm)	$	$	$	$	$	$	$	$	$
Labour	936	1,460	2,571	4,507	4,655	8,382	9,425	19,222	16,816
Operating	4,618	5,326	10,327	10,108	12,328	14,582	14,298	29,334	23,415
Administration	583	544	631	759	770	1,112	834	1,294	1,620
Overheads	1,781	2,380	3,411	3,324	4,906	6,310	5,225	9,123	10,341
Depreciation	1,563	1,360	2,106	1,854	3,284	2,464	2,652	3,984	5,100
Total Expenditure	9,481	11,070	19,046	20,552	25,943	32,850	32,434	62,957	57,292
(cents per litre of total milk produced)	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l	¢/l
Labour	0.71	0.82	0.89	1.37	1.28	1.75	1.77	2.28	1.97
Operating	3.50	3.01	3.57	3.08	3.38	3.05	2.68	3.48	2.75
Administration	0.44	0.31	0.22	0.23	0.21	0.23	0.16	0.15	0.19
Overheads	1.35	1.34	1.18	1.01	1.34	1.32	0.98	1.08	1.21
Depreciation	1.19	0.77	0.73	0.56	0.90	0.52	0.50	0.47	0.60
Total Expenditure	7.19	6.25	6.59	6.25	7.11	6.87	6.09	7.46	6.72

TABLE 32 Net Income by Herd Size

Herd Size Group (No. of cows)

	30-39	40-59	60-79	80-99	100-119	120-149	150-199	200-249	250-299
($ per farm)	$	$	$	$	$	$	$	$	$
Gross Revenue	15,438	18,094	32,091	31,632	38,166	49,685	55,431	86,74 8	88,746
Total Expenditure	9,481	11,070	19,046	20,552	25,943	32,848	32,434	62,957	57,289
Net Income	5,957	7,024	13,045	11,080	12,223	16,837	22,997	23,791	31,457
(cents per litre of total milk produced)	¢/1	¢/1	¢/1	¢/1	¢/1	¢/1	¢/1	¢/1	¢/1
Gross Revenue	11.71	10.21	11.09	9.63	10.45	10.41	10.39	10.30	10.42
Total Expenditure	7.19	6.25	6.58	6.25	7.11	6.87	6.09	7.46	6.72
Net Income	4.52	3.96	4.51	3.38	3.34	3.54	4.30	2.84	3.70

APPENDIX F

COMPARISON WITH SURVEY RESULTS OF PREVIOUS YEARS

In order to demonstrate New Zealand trends in milk production and farm income, data from surveys of the previous four years have been presented along with 1974-75 results in Table 33.

TABLE 33 Comparison with Survey Results (year ending 31 March) of Previous Years

CHARACTERISTIC	1970-71	1971-72	1972-73	1973-74	1974-75
N.Z. Suppliers (No.)	1,876	1,817	1,782	1,743	1,693
Survey Sample (No.)	181	181	174	90	90
(a) PHYSICAL					
Productive Farm Area (ha)	63.5	66.0	74.9	73.0	73.2
Daily Quota (l)	600	641	682	682	728
Herd Size (No.cows)	91	93	100	100	102
Milk Production (l/farm)	314,626	339,079	362,746	356,985	369,611
Milk Production (l/labour unit)	177,757	210,608	176,947	175,854	188,577
Milk Production (l/prod.ha)	4,955	5,138	4,842	4,890	5,053
Milk Production (l/dairy prod.ha)	N.A.	N.A.	N.A.	N.A.	4,945
Total Labour Units Engaged (L.U.)	1.77	1.61	2.05	2.03	1.96
(b) FINANCIAL					
Total Assets ($/farm)	66,807	77,034	95,552	167,952	203,724
Gross Revenue ($/farm)	20,431	25,789	31,800	35,875	38,328
Gross Revenue (¢/litre)	6.494	7.607	8.77	10.050	10.370
Total Expenditure ($/farm)	13,574	15,723	19,564	23,351	24,696
Total Expenditure (¢/litre)	4.311	4.635	5.394	6.542	6.688
Net Income ($/farm)	6,857	10,066	12,236	12,524	13,632
Net Income (¢/litre	2.183	2.972	3.377	3.508	3.682

APPENDIX G

HERD STRUCTURE AND HERD TESTING

About 88 percent of all cows in the surveyed herds were Friesian, the remainder being Friesian-Jersey cross, Shorthorn and Ayrshire.

Data collected on stock balances is given in Tables 34 and 35. The average size of town supply herds continued a long-term general increase in both Islands. Herd size averaged 102 cows in 1974/75, a rise of two percent from the 1973/74 survey.

There was a small decline in the total number of sheep and beef cattle from the previous survey.

TABLE 34 Dairy Stock Balances

	New Zealand		North Island		South Island			New Zealand		North Island		South Island	
Opening Stock	Average No. per Farm	Value $	Average No. per Farm	Value $	Average No. per Farm	Value $	Closing Stock	Average No. per Farm	Value $	Average No. per Farm	Value $	Average No. per Farm	Value $
All Cows	100	12,508	112	14,000	75	9,370	All Cows	104	12,887	115	14,258	81	10,004
Heifers-in-Calf	8	801	9	864	7	669	Heifers-in-Calf	9	872	9	911	8	789
1-2 yr.Heifers	16	1,268	17	1,329	14	1,140	1-2 yr. Heifers	14	1,149	16	1,288	12	858
Yearlings	15	727	15	739	15	703	Yearlings	16	863	16	876	16	838
Calves	15	325	16	359	13	255	Calves	15	327	14	321	16	341
Young Bulls	2	51	2	37	3	79	Young Bulls	4	71	3	78	3	54
Bulls	2	353	2	307	2	452	Bulls	1	327	2	308	2	366
Sub total	158	16,033	173	17,635	129	12,668	Sub total	163	16,496	175	18,040	138	13,250
Purchases							Sales						
Cows	5	620	5	661	3	534	Cows	16	1,280	17	1,114	14	1,629
Other Dairy	3	509	3	482	4	562	Other Dairy	5	376	5	401	3	324
Sub total	8	1,129	8	1,143	7	1,096	Sub total	21	1,656	22	1,515	17	1,953
Calves Reared	24	-	24	-	23	-	Deaths, Killers etc.	6	-	7	-	4	-
Opening Total	190	17,162	205	18,778	159	13,764	Bobby Calves Sold	(66)	619	(78)	710	(41)	426
Livestock Profit	-	1,609	-	1,487	-	1,865							
Opening Balance	190	18,771	205	20,265	159	15,629	Closing Balance	190	18,771	205	20,265	159	15,629

NOTE: Stock numbers and values have been rounded to nearest whole number.
Figures in brackets have not been included in stock balances.

TABLE 35

Beef and Sheep Stock Balances for all Farms

Opening Stock	Average No. per Farm	Value $	Closing Stock	Average No. per Farm	Value $
All Sheep	29	143	All Sheep	24	120
All Beef Cattle	1	72	All Beef Cattle	1	56
Sub-total	30	215	Sub-total	25	176
All Purchases	17	139	All Sales	36	277
Reared Replacements	17	-	Deaths, Killers, etc.	3	-
Opening Total	64	354			
Livestock Profit	-	99			
Opening Balance	64	453	Closing Balance	64	453

Data on the use of herd testing are given in Table 36. Herd testing was carried out on 50 per cent of the farms, compared to 48 per cent in 1973/74. It can be seen that herd testing was more likely to be carried out on farms with large quotas than on farms with small quotas.

TABLE 36

Use of Herd Testing

Distribution of use of herd testing								
	Quota group (litres)							
	200 - 400	401 - 600	601 - 800	801 - 1000	1001 - 1200	1201 1400	over 1400	Total
	No.	No.	No.	No.	No.	No.	No.	No.
Herd Testing	2	10	14	7	5	3	4	45
No Herd Testing	12	14	9	7	1	1	1	45
Total	14	24	23	14	6	4	5	90

Characteristic		Farms Using Herd Testing	Farms Not Using Herd Testing
Proportion of Surveyed Farms	(%)	50	50
Daily Quota	(l/farm)	847	609
Herd Size	(cows/farm)	111	94
Total Milk Production	(l/farm)	419,989	319,233
Gross Revenue	($/farm)	44,299	32,355
Total Expendidure	($/farm)	29,123	20,269
Net Income	($/farm)	15,176	12,086
Net Income	(cents/litre)	3.61	3.75
Total Farm Assets	($/farm)	217,863	189,512

APPENDIX H

SHED TYPES AND EFFLUENT DISPOSAL SYSTEMS

The distribution of shed types in North and South Islands is given in Table 37. The herringbone milking shed was the most predominant type in the North Island, while the walk-through (or internal race) was the most common in the South Island. Other types of cowsheds include tandem and abreast types. The age of cowshed was based on the year of construction or year of latest renovation.

TABLE 37

Shed Types

Type of Cowshed in Use	New Zealand	North Island	South Island
	(per cent of farms)		
Herringbone (all types)	49	52	41
Walk-Through	43	36	59
Rotary	4	5	0
All Others	4	7	0
Total	100	100	100
Age of Cowshed	11	10	13
Pairs of Cupsets in Use (No.)	9	9	7

Table 38 gives the distribution of the types of effluent disposal systems on the 90 surveyed farms.

TABLE 38

Distribution of Types of Effluent Disposal Systems

Effluent Disposal System	New Zealand	North Island	South Island
	(per cent of farms)		
Spray Irrigation	23	11	46
Use of Sumps	24	23	29
Pumping on to Pasture	16	18	12
Cartage from Shed	5	5	5
Settling Tanks	9	13	0
Into Streams etc.	23	30	8
Total	100	100	100

APPENDIX I

SUPPLEMENTARY FEED USE

Data collected on supplementary feed use is presented in Table 39. Supplementary feed accounts for an average of about 20 percent of farm operating expenses. Nearly all the surveyed farms fed hay whilst 68 percent of all farms fed silage as well.

TABLE 39

Supplementary Feed Use

		New Zealand	North Island	South Island
Proportion farms feeding:				
Hay	(%)	99	98	100
Silage	(%)	68	88	26
Forage Crop	(%)	72	66	85
Grain	(%)	19	5	48
Meal	(%)	40	52	14
Farms feeding meal or grain:				
Quantity grain fed	(tonnes/farm/annum)	18	20	17
Quantity dairy meal fed	(tonnes/farm/annum)	20	22	12

APPENDIX J

FARMER CHARACTERISTICS

TABLE 40

Farmer Characteristics

	1973-74 Survey	1974-75 Survey
Age of farmer (years)	44.6	43.2
Experience as a town milk producer (years)	15.4	14.5
Proportion of farmers engaging in part time contract work (%)	17	23

TABLE 41

Distribution of Age of Farmers

Age Groups (yrs)	20-29	30-39	40-49	50-59	60-69	70-79	Total
Proportion of farmers (%)	6	30	42	20	2	0	100

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