

A POSTAL SAMPLE SURVEY OF SHEEP FARMER ATTITUDES
TO INCENTIVES AND OBSTACLES
TO INCREASING FARM OUTPUT,
AND OTHER AGRICULTURAL POLICY ISSUES

by

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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 a list of previous publications see inside back cover.

The Unit and the Department of Agricultural Economics & 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.

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I. SUMMARY

Since 1968 agricultural production in New Zealand has been virtually stagnant. In 1975 studies were undertaken at the Agricultural Economics Research Unit to investigate some of the main causes of the fall off in the rate of growth in output from the sheep industry. This enquiry included a postal survey of sheep farmer opinions to ascertain their views on obstacles and effective incentives to increased production, income stabilisation measures, the effectiveness of the main organisations, land acquisition and some other issues. There was a 70 per cent response from the random sample of sheepfarmers throughout New Zealand supplied by the Ministry of Agriculture.

The survey disclosed that while almost all the farmer respondents affirmed they had the potential to expand production, only half of them stated they were planning to do so in the 1975-76 season. From a list of suggested obstacles to output, the farmers rated 'the lack of effective restraint on incomes in the non farm sector', 'inadequate farm profits' and the 'cost of farm requisites' as the most important. From a nominated list of suggested incentives they indicated that an increased fertiliser subsidy and a reduction in income tax rates would achieve the greatest effect. The respondents supplied a lengthy list of additional obstacles and incentives to increased farm production.

The answers to the questions revealed a shift in sheepfarmer opinion towards greater support for wool marketing reform. Farmers also indicated their endorsement of the meat and wool price stabilisation measures implemented in 1975. When asked to assess the effectiveness of their main organisations they rated the Meat Board as the most effective.

Answers were given to a number of other questions from the sample of sheepfarmers whose average age was 45, and whose replies were, on some issues, 'age related'.

II. INTRODUCTION

In 1975 due to, amongst other factors, a deterioration in its terms of trade and an excessive level of importing, New Zealand's foreign exchange position deteriorated. As a long term positive measure to restore stability to the balance of overseas payments situation, increasing emphasis was placed on the necessity to achieve greater foreign exchange earnings from the farm sector, whose output had virtually stagnated after 1968.

Studies were undertaken at the Agricultural Economics Research Unit into identifying some of the major reasons why farm production had not achieved the livestock growth rate projected by the Agricultural Production Council. During the course of this work it was considered important that the views of farmers be sought and obtained on their attitudes to increased production and their views on what are some of the real obstacles to an expansion in farm production if Government was considering introducing additional measures in 1976. It was decided to concentrate on the sheep industry as it was in this sector where a large fall-off had occurred in livestock numbers.

The Ministry of Agriculture agreed to supply a random sample of sheep farms throughout New Zealand. This comprised 548 farms. A questionnaire was drawn up which aimed at eliciting from the respondents their attitudes to increased farm production, their opinion as to the real obstacles to an expansion in their production and their views on what incentives, if introduced, would achieve the aim of greater farm output. In addition other questions were included - these were related to the broader issues involved in expanding farm production. They included farmer opinions on wool and meat income stabilisation decisions taken in 1975, farmer attitudes to reform of the wool marketing system, attitudes to additional land purchase and farmer assessment of their own major organisations. Other issues included an enquiry as to the average age of sheep farmers and an indication as to the age at which they planned to retire from active farming. The full questionnaire is set out in Appendix A.

548 questionnaires were posted on 17th October, 1975 and by 25th November 387 had been returned. Of these, 50 returns were declared 'invalid' for a number of reasons, either because the farm was sold (14 returns), that it was now being run as a dairy farm (14 returns), that it was too small (10 returns), 'gone-no address' (8) or 'Declined to answer' (4 returns). Thus the total valid replies were 337 or 61 per cent of the number issued.¹ Appendix B is a graph showing the receipt of the replies after the initial despatch of the questionnaire and the issue of a reminder on 6th November.

In addition to opinions farmers were asked to supply data on the size of their farms, the type of tenure, the classification (as used by the N. Z. Meat and Wool Boards' Economic Service in its surveys), livestock numbers, annual output, the type of ownership structure, the farmer's present age, and their use of professional advisory services.

Some large gaps exist in our knowledge and understanding of farmers and farming in New Zealand. This survey was aimed at reducing some of the 'areas of ignorance' and it is hoped that the results will be of special value to those involved in the formulation of crucial aspects of agricultural policy in New Zealand. From its objective and independent position the College is ideally situated to undertake such surveys. The farmer response was most encouraging and one hopes that the exercise recorded in this publication can be repeated in the future.

J. G. Pryde
Research Fellow in Agricultural Policy

¹ The assistance of George Gregg and Pat Campbell in data analysis is greatly appreciated.

III. RESULTS

1. Profile of Survey Farms and Farmers

The 337 sheep farms had an average area of 1,600 acres, while the average number of stock units was 3,375, converted on the following basis:-

<u>Sheep</u>	Ewes,	per head	-	1.0.s.u.
	Hoggets,	per head	-	0.6.s.u.
	Others,	per head	-	0.8.s.u.
<u>Cattle</u>	Cows,	per head	-	6.0.s.u.
	Others,	per head	-	4.0.s.u.
	Calves,	per head	-	3.0.s.u.
	Bulls,	per head	-	5.0.s.u.

Stock Carried

The returns disclosed the following details of the average number of stock carried:-

Mean of	Breeding Cows carried	=	82
" "	Heifers carried	=	24
" "	Heifer Calves carried	=	31
" "	Steer Calves carried	=	31
" "	Other Cattle carried	=	54
" "	Breeding Ewes carried	=	1,956
" "	Ewe Hoggets carried	=	488
" "	Other Sheep carried	=	175

Lambing Percentage

1974/75 Season (mean) = 100.1

Production

Mean of Bales of Wool Produced	=	67
Mean of Total Sheep sold	=	1,356
Mean of Total Cattle sold	=	63

Present Average Age of Farmers

Farmers were asked their present age.

The replies gave an average age of 44.8 years.

(No. of respondents - 331).

Retiring Age

Farmers were asked to state at what age they planned to retire. (185 farmers replied to this question.)

The average age at which farmers planned to retire was 61.6 years.

Types of Holding

The responding farms were distributed as follows:-

(Figures in brackets are the corresponding proportions in the Meat and Wool Boards' Economic Service Survey.)

	%	%
1. High Country, South Island	1.8	(6.9)
2. Hill Country, South Island	12.3	(7.1)
3. Hard Hill Country, North Island	5.0	(13.2)
4. Hill Country, North Island	26.1	(22.9)
5. Intensive Fattening Farms, North Island	16.9	(21.4)
6. Fattening-Breeding Farms, South Island	15.7	(14.5)
7. Intensive Fattening Farms, South Island	2.4	(8.9)
8. Mixed Cropping & Fattening Farms, So. Island	19.9	(5.2)

Ownership Classification

Classification of the ownership of the valid replies was as follows:-

	%
Owner	53.4
Partnership	21.7
Trust	2.7
Company	3.3
Partnership Trust	3.0
Ownership Trust	4.5
Partnership Estate	2.7
Owners Company	5.6
Partnership Company	3.0
Other	0.3

2. Farmer Attitudes to Production Expansion

Although 92 per cent of farmers stated that their farms were capable of greater output, given a favourable economic and financial climate, only 52 per cent of farmers stated that they were actually planning to increase output from their farms in the 1975/76 season. This must be regarded as a disturbingly low percentage of farmers planning a deliberate expansion of their output. Some of the reasons for this attitude are revealed in the replies given to some of the questions.

It is of interest to note that if farms are classified according to size and farmers are classified according to age, the following intentions on increasing production are obtained in answer to the question 'Are you planning to increase the output from your farm this season? '.

A. By Age of Farmer

	Young Farmer (up to 40 years)	Middle-aged Farmer (40 - 50 years)	Older Farmer (Over 50 years)
YES	67%	49%	51%
NO	33%	51%	49%
Number of Farmers	76	175	55

B. By Size of Farm

	SMALL (Up to 2,000 stock units)	MEDIUM (2,000-4,000 stock units)	LARGE (Over 4,000 stock units)
YES	57%	48%	60%
NO	43%	52%	40%
Number of Farmers	122	116	73

It is clear that a higher proportion of the younger farmers (i. e. those under 40) have made a decision to expand output than either middle or older farmers. Also, while 60 per cent of the large farms and 57 per cent of the small farms plan an expansion of output, opinion is almost evenly divided on medium sized farms.

Of the farmers who indicated that they were planning an expansion of output approximately half said they planned an increase in the number of livestock carried, about half said they hoped to derive greater production from their existing livestock, while a small percentage said they were planning to change their pattern of production.

3. Farmer Assessments of Production Incentives

Farmers were asked that, if in 1976 Government proposed spending a fixed sum on encouraging greater farm production, how best could it spend the money to encourage them to increase their production. They were asked to rate their preferences for a list of suggested incentives. These incentives and the sheep farmer responses were as follows:-

(a) An Increased Fertiliser Subsidy:

	%
Of no Value	3.0
Of little Value	8.0
Valuable	38.0
Very Valuable	51.0
	<hr style="width: 10%; margin: 0 auto;"/>
	100.0

(No. of respondents - 331).

Clearly farmers consider that this incentive would be effective, with almost ninety per cent rating it as either 'very valuable' or 'valuable'. The incentive was rated especially high by those farmers on large farms.

(b) An Increased Subsidy on Weedicides and Pesticides:

	%
Of no Value	7
Of little Value	22
Valuable	35
Very Valuable	<u>36</u>
	100

(No. of respondents - 333).

Here again this incentive is popular although almost thirty per cent rated it as of little or no value. Those on small farms rated it highly, as did those on South Island fattening and cropping farms where the use of chemicals is higher.

(c) A Subsidy on Contracting Costs such as fencing, drainage, ploughing and shearing.

	%
Of No Value	13
Of little Value	27
Valuable	36
Very Valuable	<u>24</u>
	100

(No. of respondents - 324).

There was clearly a division of opinion on this suggested incentive. Forty per cent of farmer respondents considered such a subsidy would be of 'little' or 'no value', while sixty per cent regarded it as 'valuable' or 'very valuable'. The suggestion was strongly supported by those farmers on large farms.

(d) A Financial Contribution towards the Cost of an Additional Worker on your Farm:

	%
Of no Value	33
Of little Value	26
Valuable	21
Very Valuable	<u>20</u>
	100

(No. of respondents - 330).

This response evoked less support than some may have anticipated. Almost sixty per cent considered it would of 'little' or 'no value'. Medium sized farms gave it strongest support and small farms least support.

(e) A reduction in Income Tax Rates for Farming:

	%
Of no Value	8
Of little Value	14
Valuable	27
Very Valuable	<u>51</u>
	100

(No. of respondents - 330).

This incentive would obviously have appeal to many farmers despite the fact that except in 'boom' years the farming sector is not a high tax paying one. Seventy-eight per cent of farmer respondents considered that lower income tax rates for the farming industry would be either 'valuable' or 'very valuable'. Of the three age groups strongest support came from the older farmers whereas on a size of-farm basis greatest endorsement was from medium sized farms.

(f) A Reduction in Local Body Rates:

	%
Of no Value	8
Of little Value	28
Valuable	41
Very Valuable	<u>23</u>
	100

(No. of respondents - 330).

Sixty-four per cent of farmers considered that this incentive would be either 'valuable' or 'very valuable'. Older farmers gave it the strongest support.

(g) A Reduction in Interest Payments:

	%
Of no Value	20
Of little Value	24
Valuable	26
Very Valuable	30
	<hr/>
	100

(No. of respondents - 322).

There was a spread of opinion on this suggested incentive. On an age-of-farmer basis it received strongest support from the young farmers while on a size-of-farm basis greatest endorsement came from those with the large farms.

(h) A Cash grant for each unit of livestock carried
(as in the Sheep Retention Scheme):

	%
Of no Value	13
Of little Value	21
Valuable	40
Very Valuable	26
	<hr/>
	100

(No. of respondents - 317).

This incentive would clearly receive support - two-thirds regarding it as 'valuable' or 'very valuable'. On a size-of-farm basis it was evenly supported by the three farm groupings and a similar pattern was recorded by the three age groupings.

(i) A Contribution towards the cost of a better Secretarial
and Accounting Service for farmers:

	%
Of no Value	27
Of little Value	42
Valuable	23
Very Valuable	8
	<hr/>
	100

(No. of respondents - 323).

Almost seventy per cent of farmers considered this incentive as of 'no value' or 'little value'.

Ranking of Replies

If weightings are attached to the degree of support expressed in each policy alternative, the ranking, in order, would be:-

Preference 1 : An Increased fertiliser subsidy.

(This option has a clear lead over the others with a 'score' of 3.4.)

Preference 2 : A reduction in Income Tax Rates for Farming.
('Score' of 3.2).

Preference 3 : An increased subsidy on weedicides and pesticides.
('Score' of 3.0).

Preference 4 : A cash grant for each unit of livestock carried
(as in the Sheep Retention Scheme).
('Score' of 2.8).

Preference 5 : A reduction in Local Body Rates.
('Score' of 2.8).

Preference 6 : A subsidy on Contracting Costs such as fencing,
drainage, ploughing and shearing.
('Score' of 2.7).

Preference 7 : A subsidy on Interest Payments.
('Score' of 2.7).

Preference 8 : A Financial Contribution towards the Cost of
an additional farm worker.
('Score' of 2.3).

Preference 9 : A contribution towards the cost of a better secretarial
and accounting service for farmers.
('Score' of 2.1).

Additional Factors suggested as aids to Farm Output Expansion.

Farmers were asked to list any other factors they considered would assist in achieving an output expansion. Several were already covered in the questionnaire. Others included a reduction in cartage rates (road, rail and shipping), a reduction in the price and tax on farm machinery and spare parts (respondents were apparently unaware that such items attract little or no tax), increased availability of skilled labour and assistance in training unskilled workers, a subsidy on

farm petrol, diesel and oil, a halt to strikes in Freezing works, finance from the Rural Bank for additional purposes, a reduction in the killing charges at Freezing works, an additional lime subsidy, additional subsidies for irrigation, the abolition of death duties in farming, a subsidy on Secondary school boarding fees for the children of rural workers and a reduction in the price of land.

The full list of additional suggestions is set in Appendix B.

4. Farmer Opinions on Obstacles to Greater Farm Production

Farmers were asked to rate a list of twelve suggested 'obstacles to increased farm production'. The list and the ratings are as follows:-

(a) Inadequate Profits from farming to finance increased Production:

	%
Of no Importance	2
Of little Importance	3
Important	20
Very Important	75
	<hr style="width: 10%; margin: 0 auto;"/>
	100

(No. of respondents - 333).

This result showed that inadequate profitability was clearly considered by farmers a major factor inhibiting production. Support was even throughout the different age groups and main farm sizes.

(b) The Financial Returns from Increased Production are not worthwhile:

	%
Of no Importance	4
Of little Importance	12
Important	31
Very Important	53
	<hr style="width: 10%; margin: 0 auto;"/>
	100

(No. of respondents - 327).

Again respondents considered lack of profitability a real disincentive to increased production. This view was especially strong amongst young farmers.

(c) Rates of Taxation:

	%
Of no Importance	4
Of little Importance	17
Important	32
Very Important	47
	<hr style="width: 10%; margin: 0 auto;"/> 100

(No. of respondents - 334).

Clearly taxation is regarded as of major importance with almost eighty per cent rating it as 'very important' or 'important'. Older farmers in particular emphasised its importance.

(d) Lack of Effective Restraint on Wages in the non-farming sector of the economy:

	%
Of no Importance	1
Of little Importance	3
Important	16
Very Important	80
	<hr style="width: 10%; margin: 0 auto;"/> 100

(No. of respondents - 334).

Farmers obviously rate this factor as very relevant to production expansion. Opinion is equally strong between each age group and on a size-of-farm basis.

(e) Cost of Farm Requisites:

	%
Of no Importance	0
Of little Importance	3
Important	29
Very Important	68
	<hr style="width: 10%; margin: 0 auto;"/>
	100

(No. of respondents - 333).

Here again farmer opinion was strongly expressed.

It was also even throughout the different sized groups and the farmer age groups.

(f) Uncertainty due to Fluctuations in the Overseas Prices for Farm Products

	%
Of no Importance	1
Of little Importance	19
Important	38
Very Important	42
	<hr style="width: 10%; margin: 0 auto;"/>
	100

(No. of respondents - 333).

In view of the price smoothing decisions made during the latter part of 1975, the response to this suggested obstacle has increased importance. With eighty per cent of respondents regarding it as either 'very important' or 'important' it is obviously of concern to most farmers. It received overall support from all age groupings and on a size-of-farm basis.

(g) Difficulty in borrowing capital for Farm Development:

	%
Of no Importance	22
Of little Importance	37
Important	27
Very Important	14
	<hr style="width: 10%; margin-left: auto; margin-right: 0;"/>
	100

(No. of respondents - 326).

The largest single group considered that factor was 'Of little Importance' and if combined with those who regarded it as 'of no Importance' the group represents almost sixty per cent of respondents. Stronger support for the importance of this factor did however come from those on the large farms.

(h) The Level of Death Duties:

	%
Of no Importance	5
Of little Importance	13
Important	18
Very Important	64
	<hr style="width: 10%; margin-left: auto; margin-right: 0;"/>
	100

(No. of respondents - 335).

With eighty-two per cent of farmers regarding the present level of death duties as 'very important' or 'important', there are obviously strong farmer views on this factor as an obstacle to farm output. The intensity of feeling is strongest in the older age group of farmers and from farmers with the largest farms.

(i) The need under Present Conditions to maintain Income by Selling off capital stock.

	%
Of no Importance	32
Of little Importance	20
Important	21
Very Important	27
	<hr style="width: 10%; margin-left: auto; margin-right: 0;"/>
	100

(No. of respondents - 322).

The largest single group considered this factor of 'no importance'. Support for the view that this factor was of some importance came strongest from those on the large farms.

(j) Fear of Encountering a Drought and being short of feed:

	%
Of no Importance	18
Of little Importance	39
Important	23
Very Important	20
	<hr style="width: 10%; margin: 0 auto;"/>
	100

(No. of respondents - 330).

Despite the occurrence of droughts during the last decade, fifty-seven per cent of respondents considered that as an obstacle to increased output, this factor was of 'little' or 'no importance'. These views were evenly expressed by the three age groups and farm sizes.

(k) Weed and Pest Problems:

	%
Of no Importance	13
Of little Importance	35
Important	30
Very Important	22
	<hr style="width: 10%; margin: 0 auto;"/>
	100

(No. of respondents - 332).

Fifty-two per cent gave this factor or rating of 'Important' or 'Very Important'. Farmers on the larger farms ranked it as of greater importance than did those on the medium-sized and small farms.

(1) Fear of Encountering Animal Disease Problems:

	%
Of no Importance	26
Of little Importance	43
Important	20
Very Important	<u>11</u>
	100

(No. of respondents - 331).

The largest single group assessed this factor as of 'Little Importance'. Opinion was fairly uniform between the different age groups and the three farm sizes.

Ranking of Replies on Obstacles to Farm Output:

If the farm assessment descriptions are given a weighting, the 12 suggested 'obstacles to farm output' could be listed in the following order of importance:-

<u>Obstacles to Farm Output</u> (In order of importance)	('Score')
1. Lack of effective restraint on wages in the non-farm sector	<u>3.7</u>
2. Inadequate profits from farming to finance increased prod'n.	<u>3.7</u>
3. Cost of farm requisites	<u>3.6</u>
4. The present level of death duties	<u>3.4</u>
5. Inadequate financial returns from increased production	<u>3.3</u>
6. Rates of taxation	<u>3.2</u>
7. Uncertainty due to fluctuations in the overseas prices for farm products	<u>3.2</u>
8. Weed and pest problems	<u>2.6</u>
9. Fear of encountering a drought and being short of feed	<u>2.5</u>
10. The need, under present conditions, to maintain income by selling off capital livestock	<u>2.4</u>
11. Difficulty in borrowing capital for Farm Development	<u>2.3</u>
12. Fear of encountering animal disease problems	<u>2.2</u>

5. Opinions on Meat and Wool Stabilisation SchemeMeat

At the commencement of the 1975-76 meat production season, agreement was reached between Government and the N. Z. Meat Producers' Board on a 'Price Smoothing Scheme' for meat producers.

To ascertain farmer opinion of these arrangements, respondents were asked to indicate their expectations on the value of the scheme to them. Their ratings were as follows:-

	%
Of no Value	4
Of little Value	18
Valuable	50
Very Valuable	25
No Opinion	<u>3</u>
	100

(No. of respondents - 326).

Of the three farm sizes, highest percentage support came from large farms. Overall, twenty-five per cent of farmers expect the scheme to be either 'Valuable' or 'Very Valuable'.

Wool

As from the commencement of the 1975/76 Wool Selling Season, the Wool Marketing Corporation announced that, after consultation with Government, the minimum average wool price to be paid to wool growers would be 124 cents per kilo. In view of the considerable discussion that took place amongst wool growers on the wisdom of Government agreeing to underpin the basic price at an increased level, it was decided to seek the opinion of growers on the Corporation's decision. The results were as follows:-

	%
Opposed	10
Support	86
No Opinion	<u>4</u>
	100

(No. of respondents - 335).

Support from the three farm sizes was even but of the three age groups, least percentage endorsement came from the older farmers. Sheep farmers obviously overwhelmingly endorse the Corporation's decision to lift the average minimum price to 124 cents per kilo.

Wool Marketing Reform

In 1972 the N. Z. Wool Board proposed that the N. Z. Wool Marketing Corporation should acquire and market all wool produced in New Zealand. Legislation was introduced to achieve this object but in the face of opposition from growers it was amended to provide that before total acquisition powers were implemented by the Wool Corporation, a referendum amongst growers would have to be held. Subsequently the Government empowered the Corporation to take this decision.

A great deal of debate took place in 1972 on the extent of grower support of the acquisition of the wool clip by the Corporation. Little debate has occurred in 1975 as to present grower attitudes towards these reform proposals. It was decided to ask farmers their attitude to the reform proposals in 1972 and their attitude today.

Attitude to Wool Marketing Reform in 1972

	%
Supported Proposals	41.6
Opposed Proposals	50.6
Had no Opinion	<u>7.8</u>
	100.0

(No. of respondents - 334).

Attitude to Wool Marketing Reform NOW.

	%
Support	47.0
Oppose	44.8
No Opinion	<u>8.2</u>
	100.0

(No. of respondents - 328).

	Small Farms	Medium Farms	Large Farms
Support 1972	38%	43%	48%
NOW	43%	48%	55%
Oppose 1972	52%	51%	46%
NOW	48%	44%	39%
No Opinion 1972	10%	6%	7%
NOW	9%	8%	6%
Total number of respondents - Opinions in 1972	=		334
	Opinions NOW	=	328

Whilst there has been a small increase in support of wool marketing reform in the three groups, explicit opposition is still greater in the case of those farmers on small farms.

6. Farmer Use of Professional Services

It is sometimes suggested that attitudes to increasing farm output are related to the utilisation by farmers of professional advice. It was decided to ask the respondents if they engaged the services of a Technical Adviser. They were asked to name him, if their response was in the affirmative. The following was the response of 324 farmers to this question.

YES	-	20 per cent
NO	-	80 per cent.

When asked to name the adviser, most stated Ministry of Agriculture adviser, Farm Improvement Club adviser or Farm Consultant. Some gave no name.

Farmers were then asked if they engaged the services of a Financial adviser. There were 324 replies to this question, as follows:-

YES	-	35 per cent
NO	-	65 per cent.

When asked to name the Financial adviser, respondents gave the name of the manager of their Stock and Station Agency, their Bank Manager, their Farm Consultant, or their Accountant.

7. Farmer Attitude to Farm Enlargement

Increased farm production, in the view of some authorities, depends to some extent on the desire or willingness of existing farmers to acquire more farmland. In view of this contention it was decided to enquire from farmers whether, if they had the opportunity (this would also imply the necessary financial resources or access to them), would they purchase additional land to enlarge their farms.

326 replies were received to this question. They stated:-

YES	-	61 per cent
NO	-	39 per cent.

Farmers on the medium and large units gave a higher proportionate affirmative answer to this question than did those on the small holdings.

From an analysis of 321 replies it was evident that the willingness to acquire more land diminished as a sheep-farmer grew older. Whereas three-quarters of the young farmers signified their willingness to acquire more land, only about forty per cent of older farmers did so.

8. Opinions on the Effectiveness of the Main Farm Organisation

As the main farm organisations are inextricably involved in any expansion in farm production, it was decided to ask sheep farmers to give their own assessment of the Present Effectiveness of these bodies to which each farmer is required to make a financial contribution. The ratings are as follows:-

N. Z. Meat Producers Board:

	%
Not Effective	7
Effective	74
Very Effective	<u>19</u>
	100

(No. of respondents - 326).

Support for the Board was fairly uniform throughout the three age groupings and farm size groupings.

N. Z. Wool Board:

	%
Not Effective	10
Effective	80
Very Effective	<u>10</u>
	100

(No. of respondents - 322).

On a farm size basis the Wool Board received its greatest support from the large farms - ninety-five per cent regarding it as 'effective' or 'very effective', compared with ninety-one per cent of the medium sized farms and eighty-seven per cent of the small farms.

Federated Farmers of New Zealand:

	%
Not Effective	32
Effective	60
Very Effective	<u>8</u>
	100

(No. of respondents - 328).

Not being a statutory organisation Federated Farmers is unlike the other three bodies assessed by farmers. It is a general purpose body operating under the Incorporated Societies Act. It does however play a major role in agricultural policy.

As the Federation operates through a network of almost 600 branches and 22 Provincial Districts throughout New Zealand, sheep farmers in their assessment of the organisation may be reflecting their opinion of the effectiveness of their local branch or Provincial district. The three statutory organisations, on the other hand, operate only at national level.

N. Z. Wool Marketing Corporation:

	%
Not Effective	18
Effective	67
Very Effective	<u>15</u>
	100

(No. of respondents - 315).

Greatest support for the Corporation came from the young farmers, ninety-two per cent of whom rated it as 'effective' or 'very effective', followed by eighty-one per cent of middle-aged farmers and seventy per cent of older farmers. On a size-of-farm basis, greatest support came from the large farms, ninety per cent of whom rated the Corporation as 'effective' or 'very effective', compared with approximately eighty per cent of small and medium sized farms.

The farm organisations compared:

	<u>Meat Board</u>	<u>Wool Board</u>	<u>Federated Farmers</u>	<u>Wool Marketing Corporation</u>
	%	%	%	%
Not effective	7	10	32	18
Effective	74	80	60	67
Very effective	<u>19</u>	<u>10</u>	<u>8</u>	<u>15</u>
	100	100	100	100

If approximate weightings were allotted to these assessments the PRESENT effectiveness ranking of the four organisations, according to the farmer respondents, would be:-

1. N. Z. Meat Producers Board
2. N. Z. Wool Board
3. N. Z. Wool Marketing Corporation
4. Federated Farmers of New Zealand.

CONCLUSIONS

From an analysis of the replies to the questionnaire from the random sample of sheep farmers supplied by the Ministry of Agriculture, some general conclusions can be drawn.

• Although all the sheep farmer respondents stated that their farms were capable of greater output, only half said they were planning a deliberate increase in output from their farms this season. Of those who replied in the affirmative, approximately half aimed to increase their livestock while others intended to derive greater output from their existing livestock numbers. A small proportion intimated their intention to change the pattern of their production.

• When asked for their views on obstacles to an expansion in sheep production, the respondents gave an assessment of the nominated obstacles and confirmed by their ratings that failure to curb internal inflation is clearly a major reason why the industry has not expanded its output. For example, the farmers listed, in importance, the lack of restraint on incomes in the non-farm sector, inadequate profitability of farming, the greatly increased cost of farm requisites, and the level of Death Duties which have become an additional burden through the escalation in land values. All these factors are linked directly or indirectly with the post-1968 massive upsurge in inflationary pressures. The suggested technical problems such as fear of droughts and a feed shortage, and a fear of animal diseases were not, in the opinion of respondents, major obstacles to increasing sheep production.

• When asked for their views on a nominated list of incentives that would be aimed at encouraging them to increase their output, the respondents indicated their strongest preference for an additional fertiliser subsidy and a reduction in taxation for the farming sector. Most replies made a plea for greater control over inflation as one of the pre-requisites to a production upsurge.

. Despite the considerable debate in sheep-farming circles as to the wisdom of pitching the Wool Marketing Corporation's minimum price at a substantially higher level, the sample's response to the question on this matter showed an overwhelming support for the Corporation's decision to increase the average minimum price for wool to 124 cents per kilo.

. In the controversial area of wool marketing reform the results of the sample survey indicate that there has been a small but definite shift in sheepfarmer attitudes. The degree of support for the reforms proposed in 1972 has increased slightly and opposition has diminished, with the proportion of uncommitted farmers remaining at around the same level as in 1972.

. In view of the decisions taken in 1975 to stabilise the incomes of meat and wool producers, it is very relevant to note that the sample indicated strongly that it was of the opinion that the Meat Board's price smoothing scheme will prove beneficial to meat producers.

. The sample group of sheepfarmers, when asked to rate the present effectiveness of the main producer organisations in New Zealand, rated the N. Z. Meat Producers Board as the most effective, at the present time.

. It is frequently asserted that the average age of the New Zealand farmer is fifty-seven years. This survey has disclosed that the average age of sheep farmers is forty-five years. The ages of respondents to the questionnaire reflected a normal distribution pattern.

. On several of the issues raised in the questionnaire the responses were related to the age of the farmers. For example, it would appear that the willingness of farmers to acquire additional land to enlarge their farms diminishes as they grow older.

. Little research has been done in New Zealand on the retirement arrangements of farmers. The sample survey would indicate from those who answered the question, that the average sheep-farmer plans to retire at the age of about 62 years.

. A minority of sheep-farmers engage the services of technical and financial advisers.

(Note: The survey yielded results additional to those contained in this Paper. At a future date these may be published as an Addendum to the Paper.)



In Reply Please Quote
Ref.:

LINCOLN COLLEGE

UNIVERSITY COLLEGE OF AGRICULTURE

(i)
POSTAL ADDRESS
LINCOLN COLLEGE
CANTERBURY
NEW ZEALAND

TELEPHONE
HSL - 8029

APPENDIX 'A'

AGRICULTURAL ECONOMICS RESEARCH UNIT

As it is in the unique position of being both independent and objective, the College is recognised as the authoritative and appropriate body to carry out research and investigation into a wide range of subjects relating to agriculture in New Zealand. At present we are endeavouring to formulate measures that would assist not only the farming industry in particular, but the nation generally. The possible effects of any new policies have to be properly researched. It is also in our view, essential that the opinions of the farmer himself are obtained before any conclusions are reached.

Your name has been selected from a scientifically drawn-up sample of sheepfarmers throughout New Zealand. It would be most valuable to us if we could receive your reactions to the questions we pose in the attached circular.

In due course the overall responses to the questions will be published. You are assured that no details of any individual farmers opinions will be disclosed. They will remain confidential to the Research Unit Staff.

Could I make a special personal plea to you to sit down now, answer the questions, put the form into the stamped addressed envelope and post it? It will take you only about 15 minutes.

Thanking you in anticipation.

Yours sincerely,

John Pryde,
Research Fellow in Agricultural Policy.

LINCOLN COLLEGE FARMER OPINION SURVEY

CODE NO.

1. The holding consists of _____ acres, of which _____ acres are freehold and _____ acres are leasehold.

2. It would be classified as:- (Please tick)

- | | | | |
|---------------------------------|--------------------------|--------------------------------------|--------------------------|
| High Country, South Island | <input type="checkbox"/> | Intensive Fattening North Island | <input type="checkbox"/> |
| Foothills of South Island | <input type="checkbox"/> | Fattening Breeding South Island | <input type="checkbox"/> |
| Hard Hill Country, North Island | <input type="checkbox"/> | Intensive Fattening South Island | <input type="checkbox"/> |
| Hill Country, North Island | <input type="checkbox"/> | Mixed Fattening & Cropping S. Island | <input type="checkbox"/> |

3. Livestock numbers as at 30th June, 1975 were:-

- | | |
|---------------|----------------------|
| Breeding Cows | <input type="text"/> |
| Heifers | <input type="text"/> |
| Heifer Calves | <input type="text"/> |
| Steer Calves | <input type="text"/> |
|
 | |
| Breeding Cows | <input type="text"/> |
| Other Cattle | <input type="text"/> |
|
 | |
| Breeding Ewes | <input type="text"/> |
| Ewe Hoggets | <input type="text"/> |
| Others | <input type="text"/> |

4. Approximate Annual Output (1974/75 Season)

- | | |
|--|----------------------|
| Bales of Wool | <input type="text"/> |
| Lambing Percentage | <input type="text"/> |
| Number of Fatstock sold
(including Cull Cows) | <input type="text"/> |
| Other (Please specify) | <input type="text"/> |
| " " " | <input type="text"/> |

5. Classification of Ownership (Tick which applies)

- | | | | |
|------------------|--------------------------|----------------------|--------------------------|
| Owner | <input type="checkbox"/> | Ownership Trust | <input type="checkbox"/> |
| Partnership | <input type="checkbox"/> | Partnership Estate | <input type="checkbox"/> |
| Trust | <input type="checkbox"/> | Owner's Company | <input type="checkbox"/> |
| Company | <input type="checkbox"/> | Partnership Company | <input type="checkbox"/> |
| Partership Trust | <input type="checkbox"/> | Other (Please state) | <input type="checkbox"/> |

6. If the Economic and Financial 'Climate' is favourable, is your Farm capable of greater output?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

7. Are you planning to increase the Output from your Farm this Season?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Will this Expansion be by:-

- | | | |
|----|--|--------------------------|
| A. | Increased Numbers of Livestock Carried? | <input type="checkbox"/> |
| B. | Greater Production from Existing Livestock?
(e.g. Increased Lambing Percentage) | <input type="checkbox"/> |
| C. | More Intensive Farming Methods (e.g. Use of Irrigation) | <input type="checkbox"/> |
| D. | Changing Production To (Please specify) | <input type="checkbox"/> |
| E. | Another Method not already covered (Please specify) | <input type="checkbox"/> |

8. If in 1976, Government proposed spending a fixed sum on encouraging greater farm production, how best could it spend the money to encourage you to increase your production? (Place a tick in the square that reflects your view)

- | | | | |
|-----|---|-----------------|--------------------------|
| (a) | An Increased Fertiliser subsidy: | Of no value | <input type="checkbox"/> |
| | | Of little value | <input type="checkbox"/> |
| | | Valuable | <input type="checkbox"/> |
| | | Very Valuable | <input type="checkbox"/> |
| (b) | An increased subsidy on weedicides and pesticides: | Of no value | <input type="checkbox"/> |
| | | Of little value | <input type="checkbox"/> |
| | | Valuable | <input type="checkbox"/> |
| | | Very Valuable | <input type="checkbox"/> |
| (c) | A subsidy on contracting costs such as fencing, drainage, ploughing and shearing: | Of no value | <input type="checkbox"/> |
| | | Of little value | <input type="checkbox"/> |
| | | Valuable | <input type="checkbox"/> |
| | | Very Valuable | <input type="checkbox"/> |
| (d) | A financial contribution towards the cost of an additional worker on your farm: | Of no value | <input type="checkbox"/> |
| | | Of little value | <input type="checkbox"/> |
| | | Valuable | <input type="checkbox"/> |
| | | Very Valuable | <input type="checkbox"/> |
| (e) | A reduction in income tax rates for farming: | Of no value | <input type="checkbox"/> |
| | | Of little value | <input type="checkbox"/> |
| | | Valuable | <input type="checkbox"/> |
| | | Very Valuable | <input type="checkbox"/> |

(f) A reduction in your Local Body Rates: Of no value
 Of little value
 Valuable
 Very Valuable

(g) A reduction in your Interest Payments: Of no value
 Of little value
 Valuable
 Very Valuable

(h) A cash grant for each unit of livestock carried (As in the Sheep Retention Scheme) Of no value
 Of little value
 Valuable
 Very Valuable

(i) A contribution towards the cost of a better Secretarial and Accounting Service for farmers: Of no value
 Of little value
 Valuable
 Very Valuable

(j) Any other Incentive? Please make some suggestions and rate them: Of no value
 Of little value
 Valuable
 Very Valuable

(k) Of no value
 Of little value
 Valuable
 Very Valuable

(l) Of no value
 Of little value
 Valuable
 Very Valuable

(m) Of no value
 Of little value
 Valuable
 Very Valuable

9. As from 1st October the Meat Board began operating a 'Price Smoothing' Scheme. From what you have read about it would you expect it to be: Of no value
 Of little value
 Valuable
 Very Valuable
 Or do you have no opinion?

10. As from the commencement of 1975/76 WOOL SELLING SEASON, wool growers are to receive a minimum average wool price of 124 cents per kilo? What is your attitude to this decision? Opposed
 Support
 No Opinion

11. In 1972, what was your attitude to the proposal that the N.Z. Wool Marketing Corporation should acquire and market all wool produced in New Zealand?

Supported
 Opposed
 Had no Opinion

What is your attitude today?

Support
 Oppose
 No opinion

12. The following have been suggested as OBSTACLES TO INCREASED FARM PRODUCTION. How would you rate them AS AN OBSTACLE?

- (a) Inadequate profits from farming to finance increased production:
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (b) The FINANCIAL RETURNS from INCREASED Production are not worthwhile.
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (c) Rates of Taxation.
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (d) Lack of Effective Restraint on wages in the non-farming sector of the economy
 - Of no Importance
 - Of Little Importance
 - Important
 - Very Important
- (e) Cost of Farm Requisites
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (f) Uncertainty due to Fluctuations in the Overseas Prices for farm Products
 - Of no Importance
 - Of Little Importance
 - Important
 - Very Important
- (g) Difficulty in borrowing capital for Farm Development
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (h) The level of Death Duties
 - Of no Importance
 - Of Little Importance
 - Important
 - Very Important

- (i) The need under present conditions to maintain income by selling off capital livestock
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (j) Fear of Encountering a Drought and being short of feed
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (k) Weed and Pest Problems
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (l) Fear of Encountering Animal Disease problems
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (m) Any other factor that you consider to be an obstacle to increased output. (Please state and rate it in importance)
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (n) Any other factor?
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important
- (o) Any other factor?
 - Of no Importance
 - Of little Importance
 - Important
 - Very Important

13. What is your present age?

At what age do you plan to retire?

Would you:-

- or Sell your farm?
- or Would younger members of your family take over the running of your farm?
- or Would you make some other arrangements?

14. Do you engage the services of

A. A Technical Adviser?

Yes
No

If YES, who?

B. A Financial Adviser

Yes
No

If YES, who?

15. If you had the opportunity, would you purchase additional land to enlarge your farm?

Yes
No

16. Can you list any other factor, not mentioned so far, which you consider would help provide better conditions for an expansion in the output from your farm?
(Please specify)

17. How would you rate the PRESENT EFFECTIVENESS of the following organisations:-

N.Z Meat Producers Board

Not Effective
Effective
Very Effective

N.Z. Wool Board

Not Effective
Effective
Very Effective

Federated Farmers

Not Effective
Effective
Very Effective

Wool Marketing Corporation

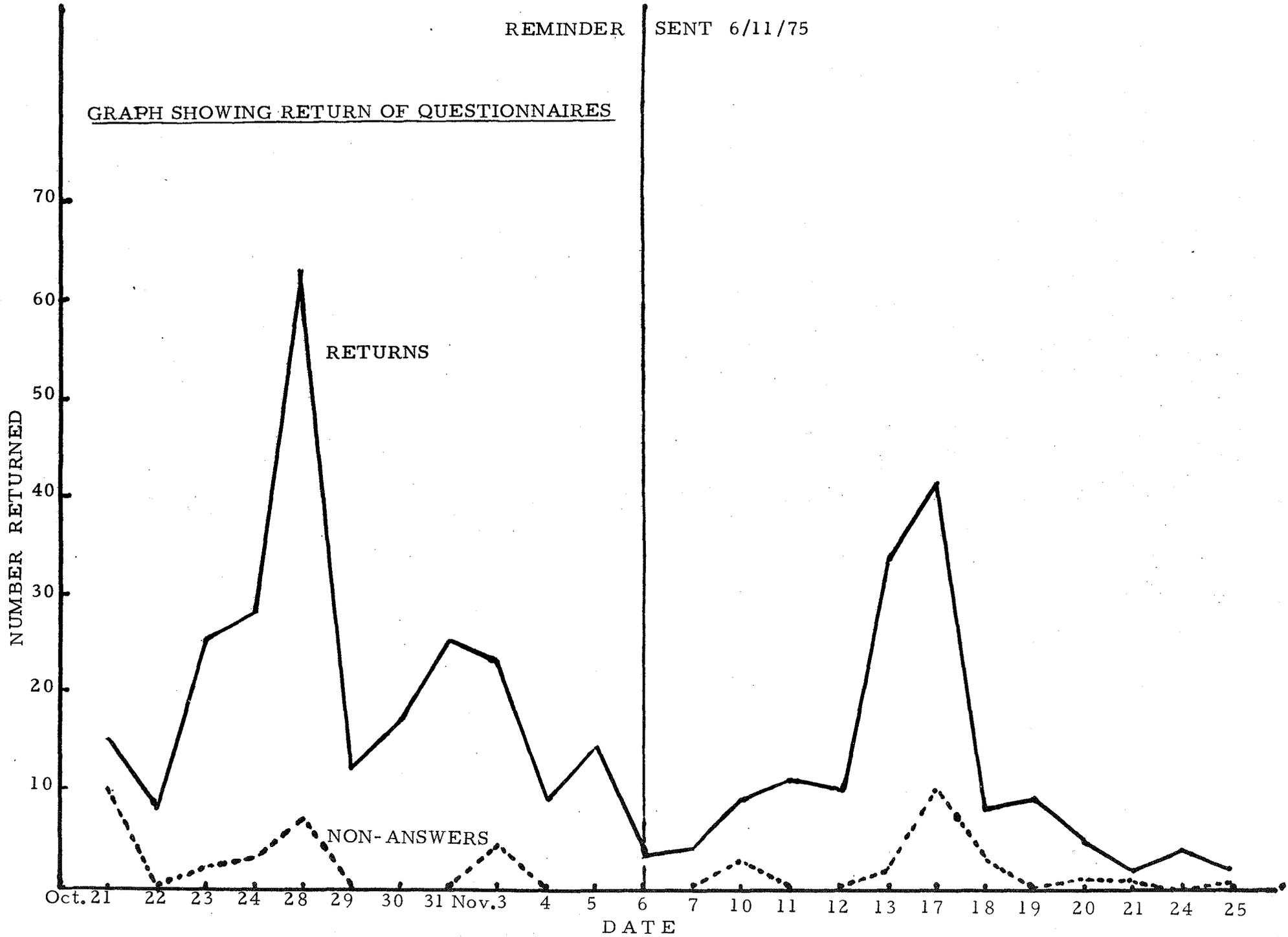
Not Effective
Effective
Very Effective

You have now completed the questionnaire. Please place it immediately in the stamped addressed envelope and post it.

THANK YOU.

REMINDER SENT 6/11/75

GRAPH SHOWING RETURN OF QUESTIONNAIRES



APPENDIX "C"

Miscellaneous Answers to Questions
on Incentives and Obstacles to Production

	<u>No. of Questionnaires in</u> <u>which subject was mentioned</u>		
	<u>Total</u>	<u>North</u> <u>Island</u>	<u>South</u> <u>Island</u>
1. An incentive to increase production (i. e. more financial reward and less tax)	70	26	44
2. A reduction in cartage rates (i. e. road, rail and shipping)	63	38	25
3. A halt to rising costs and wages	63	23	40
4. A reduction in the price and tax on farm machinery and spare parts	62	25	37
5. An increase in the margin of profit on farm investment	57	20	37
6. An increase in skilled labour and assistance in training unskilled labour	43	21	22
7. A subsidy on farm petrol, diesel and oil	38	15	23
8. A halt to freezing work and allied industry disputes and an ability to kill stock when it is ready for the works	32	14	18
9. A rural bank specialising in seasonal finance and readily available suspensory loans for farm buildings, scrub clearing etc.	29	17	12
10. A reduction in killing charges	25	19	6
11. A subsidy on lime application	24	17	7
12. An increase in the subsidy on water supplies for irrigation and other uses (even fish farming)	23	8	15
13. An <u>abolition</u> of death duties on farms	21	8	13
14. A subsidy on fencing materials, scrub cutting, drainage, gorse spraying etc.	18	4	14
15. A subsidy on aerial topdressing and spraying, airstrips, fertiliser storage bins and roading to airstrips	14	12	2
16. A subsidy on Secondary School boarding fees for the children of rural workers and a better school bus service	13	10	3
17. A reduction in the price of farm land	13	5	8
18. A <u>flat</u> instead of <u>table</u> mortgage rate and mortgage relief in bad years	12	3	9
19. An injection of more confidence into the farming community	11	7	4

	Total	North Island	South Island
20. An improvement of the farming image on T. V. and more co-operation between town and country people	11	6	5
21. Stabilisation of farm incomes	9	5	4
22. An incentive to develop maiden land	8	6	2
23. An improvement of substandard roads to farms	8	6	2
24. A reduction in the price of drenches	8	5	3
25. An increase in scientific research into rates of stock growth, soil fertility, pasture species and grass grub and porina control	8	3	5
26. A scheme to pay production costs plus a fair percentage of profit on meat and wool at the farm gate. If prices were set annually by farmers and the Government, no other help would be necessary.	8	2	6
27. A scheme whereby the Government pays EEC import tariffs	6	2	4
28. A scheme to make Government loan money available for those on leasehold land to enable young farmers to make the initial start	6	2	4
29. An increase and stabilisation of the price of wheat	6	-	6
30. A cancellation of the land aggregation legislation	5	3	2
31. An improvement of the presentation and promotion of frozen meats and other products for overseas sale and new market incentives	5	3	2
32. A reduction in the cut of "the middle man".	4	3	1
33. A subsidy on extra winter feed required during drought	4	2	2
34. A tax refund on farm building repairs and maintenance	4	2	2
35. A <u>free</u> fertiliser scheme	4	1	3
36. A subsidy on weed control which includes blackberry and the costs of labour and a follow-up inspection	3	3	1
37. A control of facial eczema	3	3	-
38. Control by farmers of their overseas earnings	3	2	1
39. A more effective pesticide for grass grub	3	1	2
40. A scheme to enable farmers to hold a percentage of cash in a special account as a non-taxable reserve for poorer years	3	1	2
41. A scheme whereby the farmer is paid a guaranteed percentage of the wholesale price of lamb	3	1	2

	Total	North Island	South Island
42. A cash grant for lambs and cull ewes sent to the works	3	1	2
43. A lifting of the 40 mile restriction on road transport	3	-	3
44. An interest bearing retention scheme to balance income from year to year	3	-	3
45. A retirement plan for farmers at a reasonable cost of living	3	-	3
46. An abolition of the nil value stock scheme	2	2	-
47. An improvement in servicing by the N. Z. Railways and fertiliser companies	2	2	-
48. An abolition of daylight saving	2	-	2
49. A change from farm income tax to <u>land</u> tax	2	-	2
50. An adjustment in taxation over a five year period	2	-	2
51. A subsidy on animal health costs, e.g. vaccines etc.	2	-	2
52. A subsidy on heavy machinery used to cope with heavy snow falls	2	-	2
53. A guaranteed minimum income for farmers	2	-	2
54. A mileage allowance for repair servicemen travelling to the farm	1	1	-
55. A scheme whereby fertiliser payments would be due six months after application	1	1	-
56. A flat rate (higher rental) instead of toll calls for phone calls to the nearest town	1	1	-
57. An increase in payments for T. B. cattle	1	1	-
58. A re-examination of the Accident Compensation Scheme as it applies to private enterprise	1	1	-
59. A compulsory militant farmers union	1	1	-
60. A compulsory membership of Federated Farmers	1	1	-
61. A scheme whereby repairs and maintenance on road fences are shared with the Ministry of Works on a 50/50 basis	1	1	-
62. A reduction in sales tax on cars for farmers who are living off bus routes and who are living more than 20 miles from the nearest town	1	1	-
63. An abolition of tax on wages paid to a wife helping with farm work	1	1	-
64. A scheme for the control of cattle bloat	1	1	-

	Total	North Island	South Island
65. A relieving scheme whereby farmers can have at least three weeks holiday per year	1	1	-
66. A licence to export maize now	1	1	-
67. A scheme whereby the Government pays hygiene requirement costs in the freezing industries	1	1	-
68. A return to the Arbitration Court approach for wage agreements, based on the ability to pay	1	1	-
69. A halt to the five-yearly revaluation of properties	1	1	-
70. A subsidy on loss sustained by flood damage not covered by insurance	1	1	-
71. A scheme to nationalise the freezing industries and put them under producer board control	1	1	-
72. A <u>revaluation</u> of the New Zealand dollar by 7-10 per cent	1	1	-
73. A reduction in non-productive work created by the Government	1	1	-
74. A reduction in 'red tape'	1	-	1
75. An increase in the processing of products before export	1	-	1
76. An increase in the grants available to the Agricultural Pests Destruction Council for rabbit control, without an increase in rates for farmers	1	-	1
77. An allowance for mothers teaching full time correspondence pupils	1	-	1
78. An electricity supply to the top of the Awatere Valley	1	-	1
79. An incentive for increased hay production, e.g. free twine	1	-	1
80. Establishment of markets for crops with high gross margins, e.g. oil-seed, tree crops, etc.	1	-	1

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50. *Fresh Vegetable Retailing in New Zealand*, G. W. Kitson, 1968.
51. *Livestock Targets in North Canterbury Hill Country: The Impact of Changing Prices*, J. L. Morris, H. J. Plunkett and R. W. M. Johnson, 1968.
52. *Sectoral Capital Formation in New Zealand, 1958-65*, T. W. Francis, 1968.
53. *Processing Peas: A Survey of Growers' Returns, 1967-8*, B. N. Hamilton and R. W. M. Johnson, 1968.
54. *Fertiliser Use in Southland*, R. W. M. Johnson, 1969.
55. *The Structure of Wool and Wool Textile Production, Trade and Consumption, 1948-68*, B. P. Philpott, G. A. Fletcher and W. G. Scott, 1969.
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60. *Current Trends in New Zealand Beef Production and Disposal*, D. McClatchy.
61. *Land Development by the State: An Economic Analysis of the Hindon Block, Otago*, E. D. Parkes.
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64. *An Economic Assessment of the Middle Class and Upper Middle Class Market in Malaya as a Potential Outlet for New Zealand Meat and Dairy Products*, K. Y. Ho, 1970.
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66. *Distribution Costs and Efficiency for Fresh Fruit and Vegetables*, G. W. Kitson, 1971.
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68. *An Analysis of Lands and Survey Development Projects, 1945-69*, H. J. Plunkett, 1972.
69. *Quantitative Techniques for Forecasting: A Review with Applications to New Zealand Wool Prices for 1974-5*, Joan Rodgers, 1974.
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2. *Processing Plant Location Studies: II: Policy Alternatives for N.Z. Wool Selling Centres*, C. R. Higham, J. L. Rodgers and W. O. McCarthy, 1972.
3. *Doing Business in Japan*, W. O. McCarthy (ed.), 1972.
4. *The Japanese Distribution System and Implications for New Zealand Traders*, G. W. Kitson, 1973.
5. *Prospects and Strategies in Promoting Tourism Between Japan and New Zealand*, G. W. Kitson, 1973.
6. *Market Assessment*, W. O. McCarthy (ed.), 1973.

7. *Optimum Site, Number and Location of Freezing Works in the South Island, New Zealand — A Spatial Analysis*, R. J. Brodie and W. O. McCarthy, 1974.
8. *The Japanese Food Market and Implications for New Zealand*, G. W. Kitson, 1975.

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3. *Economic Evaluation of Water Resources Development*, R. C. Jensen, A.N.Z.A.A.S., Christchurch, 1968.
4. *An Illustrative Example of Evaluation Procedures*, A. C. Norton and R. C. Jensen, N.Z. Assn. of Soil Conservators, May 1968.
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8. *Price Formation in the Raw Wool Market*, C. J. McKenzie, B. P. Philpott and M. J. Woods, N.Z. Assn. of Economists, February 1969.
9. *Agricultural Production Functions*, A. C. Lewis, N.Z. Assn. of Economists, February 1969.
10. *Regional Economic Development in the Context of the Changing New Zealand Economy*, B. P. Philpott, Nelson Development Seminar, April 1969.
11. *Quarterly Estimates of New Zealand Meat Price, Consumption and Allied Data, 1946-65*, C. A. Yandle.
12. *Indicative Economic Planning with a Sixteen Sector Projection Model of the New Zealand Economy*, B. J. Ross and B. P. Philpott, A.N.Z.A.A.S., Adelaide, 1969.
13. *Recent Developments in the Meat Industry with particular reference to Otago and Southland*, R. G. Pilling, Otago Branch, N.Z. Econ. Soc., October 1969.
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