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ATTITUDES AND EXPECTATIONS OF WHEATGROWERS IN NEW SOUTH WALES*

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The Australian Agricultural Council and its Standing Committee on Agriculture have recently paid considerable attention to methods of increasing rural output in Australia and of expanding wheat production in particular. One of the problems at the forefront of discussion has been that of the provision of adequate incentives, designed to encourage farmers to intensify their production programmes.

It is clear that detailed factual information on the attitudes and expectations of farmers is essential to the satisfactory formulation of suitable incentives and of policy generally. As a contribution to an understanding of the wheat farmers' problems, attitudes and expectations, the Commonwealth Bureau of Agricultural Economics and the Division of Marketing and Agricultural Economics of the N.S.W. Department of Agriculture have conducted a co-operative, fact-finding inquiry on a group of wheat farms in New South Wales, the results of which are published here.

The results presented will be of interest to all concerned with the problems of agricultural production in Australia. The survey represents a new phase of agricultural economic research in this country, not only because it covers new ground, but also because it is the first occasion on which a major research project has been conducted co-operatively by the two organizations concerned.

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SUMMARY AND CONCLUSIONS.

The survey described in this report was conducted in the wheat belt of New South Wales in October and November, 1952. A group of 127 farms was included in the sample. Information collected relates not only to the economic conditions prevailing on the farms included, but also to the attitudes and expectations of the farmers concerned with the management of the farms.

Group Management.

The dominant pattern of farm operation on the wheat farms of New South Wales is based on the family group. Many partnerships have been formed in recent years between members of the same farm family, and particularly between fathers and sons. Only 40 per cent. of the farms were managed by a single owner-operator. Half of the farms were managed by more than one person, all members of the same family; the remaining 10 per cent. of farms were managed by groups of persons who were not members of the same family. The bulk of the permanent farm labour force was composed of family labour, only 20 per cent. of the total labour force being non-family employees. Sixty-two per cent. of the farms were operated entirely by family labour, and another 18 per cent. were operated mainly by family labour.

A sample of farmers is not clearly identifiable with a sample of farms, as many farms have more than one farmer concerned in their management. The balance of responsibility for operation of the farm varies between different groups, and particularly with the age of the older member of the group. Generally, however, the older member of the group controls the investment of funds, while the younger members take the lead in innovations and changes in farm management. More research is needed to develop the effects of group management on farm operations.

Farm Income and Expenditure.

Largely because of the high level of wool prices since 1948 and the run of favourable seasons recently experienced in the wheat belt, wheat-sheep farmers in New South Wales are enjoying unprecedented levels of prosperity. They have adjusted their farm operations to the new levels of farm income, and to the commodity price relationships which have prevailed in recent years.

In the early years of the post-war wool boom, farmers tended to give priority in expenditure to reduction of debts when additional funds were available above normal operating requirements. Shortage of materials and unavailability of other investment opportunities contributed to this trend to repay debts. At the onset of the 1950-51

wool boom, farmers for the most part were in a sound financial position and had retired many of their most burdensome debts. The unprecedented windfall gains of 1950-51 provided a new opportunity for farmers to accumulate liquid reserves and to invest in farm improvements. But it was notable that farmers tended to regard the 1950-51 wool prices as quite exceptional and to base their plans and attitudes on the levels prevailing in 1949-50 and 1951-52. The 1950-51 wool boom was a windfall and was recognized as such by farmers. The incidence of the Wool Sales Deduction and the old provisional tax system tended to skim some of the cream from the 1950-51 incomes, tending to bring them back to the levels of 1949-50 and to spread disposable income more evenly over the three years, 1950, 1951 and 1952.

This series of events provides the background for an understanding of the present high rate of investment in farm improvements evident on farms. Reluctant as farmers are to borrow for the purpose, and determined as they may be to avoid over-borrowing and consequent control of their operations by banks, they are nevertheless achieving a high rate of investment in buildings, fences and machinery. Some additional expenditure on motor vehicles and domestic housing and furnishing was also in evidence. For the most part these investments are financed from current earnings. A back-log of investment in farm improvements accumulated during the last decade when shortages and high prices for materials prevailed. Farmers are now grasping the opportunity to correct this back-log by an increasing rate of investment in farm housing, buildings, fences and improvements for water and grain conservation. There has been an increased rate of investment in buildings and farm houses in the last two years. In the pre-war decade, an average of 2.4 houses per hundred farms were constructed each year on the survey farms; in 1951 the rate was 6.4 and the estimated rate in 1952 was 4.8 houses per hundred farms. Such investments would be one of the first items of expenditure to be curtailed if a substantial and sustained fall in farm incomes were to occur.

The analysis reveals some relationship between the different items on which expenditure was concentrated and the taxable income of the farmer concerned. A large proportion of farmers in all income groups devoted funds to the purchase of machinery; but a larger proportion of farmers in high income groups tended to spend money on fences, water improvements and motor cars and to accumulate bank balances. The lower income groups, as would be expected, tended more often to devote funds to repayment of debts. An understanding of the way in which farmers in different income groups tend to spend their money will be of assistance to extension workers who can compare the observed preferred expenditure patterns with the expenditure involved in a particular technique of production which they are recommending.

Occupation of Farmers' Sons.

The great majority (89 per cent.) of the occupied sons of farmers were farmers; half (54) of the 101 sons who were farmers were engaged on their fathers' farms (eighteen as partners, ten on shares, ten as employees, sixteen status not known); a small minority (10 per cent.) of the sons lived in the city. If in fact a "drift to the cities" and a loss of labour from rural areas has occurred, the evidence suggests that it is not the sons of wheat-sheep farmers who drift so much as sons of farm employees, and young folk from rural towns. The farmers' sons who moved to other occupations all came from large families, in which the sons per family averaged four. The sons who remain have inherited or can expect to inherit substantial equities in properties which provide an opportunity to achieve a living standard which is at present higher than those prevailing in many other rural or urban occupations.

Production Plans for 1953.

The production plans of farmers for the year 1953, and their reactions to the trend of economic events in the immediate past reveal some of the problems involved in encouraging farmers to achieve increased agricultural production. Concentrating, as it does, on the viewpoint of individual farmers, the report raises issues of importance in national policies as well.

The major change in farm operations planned by most farmers is an expansion of pasture improvement. When asked how money could best be spent so as to increase farm incomes on their own farms, the answer, "pasture improvement," was given more than twice as frequently as the next most common answer. Forty-nine farmers indicated they intended to continue to expand areas under improved pastures, or to sow improved pasture for the first time, in 1953. Pasture improvement has already been established in the minds of most farmers as the technique most likely to increase farm returns; the problem now is to encourage farmers to adopt the known methods of establishment, maintenance and management so as to obtain the best possible results in each particular farm environment.

Expectations and Attitudes of Farmers.

The general feeling and attitude of farmers toward the future and toward investment in their farms is dominated by their reactions to their new found wealth and by their aversion to borrowing. Approximately two-thirds of the farmers consider the present to be a favourable time to invest *their own capital*, but half of these are disinclined to *borrow for investment* in farm improvements. The remaining one-third

of the farmers consider the present time to be unfavourable for investment of either their own or of borrowed capital. Eighty-seven per cent. of the farmers could borrow funds without difficulty, and a large proportion could even finance further investment in farm improvements from cash reserves already in hand.

Reactions to borrowing were also evident when farmers were asked to comment on the special forms of concessional credit available through the Government Agency Department of the Rural Bank of New South Wales. Of the 117 farmers who answered these questions, 43 per cent. had no knowledge of the scheme; 48 per cent. had heard of it, but had no clear understanding of the types of expenditure eligible for loans; and of the remaining farmers who knew of the scheme, only one farmer had made use of it. It became evident that the apathy toward the scheme by farmers was founded largely on their desire to remain loyal to their trading bank, and the fact that the type of expenditure eligible for loans is the very kind of farm improvement which farmers tend to try to finance from current operations. In present circumstances farmers can avoid borrowing for such purposes, and this attitude will prevail so long as they can afford to maintain it. The survey suggested that if farmers cannot improve their farms without borrowing, the majority would postpone the improvements and the necessary borrowing as long as possible. So long as incentives to invest remain, investment from the farmer's own funds will occur. In this respect many farmers mentioned that they regarded the 20 per cent. taxation depreciation allowances to be of major significance in encouraging their continued investment. The significance of the role of depreciation allowances will increase as farmers become more aware of the provisions of taxation law. The survey revealed that 24 per cent. of farmers were still unaware of any of the items to which the 20 per cent. depreciation rate applied. The need is to make investment for increased farm production attractive—by means of price incentives, taxation depreciation allowances, new techniques of production and reduced costs (perhaps even by subsidies). Most farmers who were unfavourably inclined toward investment mentioned existing high costs as the deterrent, rather than any expected decline in prices.

Expected Trends in Farm Income.

The farmers were asked to express their idea of *relative* movements in costs and prices in the ensuing twelve months, and the answers were used as a basis for expressing the expected trend of incomes. Forty-four per cent. of the farmers expected costs to rise relatively more than prices so that incomes would fall. Over half of these farmers considered wool, wheat or lamb prices would fall, while the remainder expected costs to rise more rapidly than prices. Thirty-one per cent. of the farmers estimated that farm incomes would rise, and 25 per cent. reckoned on incomes remaining about the same.

In so far as individual commodity prices in the next twelve months were concerned, the general opinion among farmers was that price levels were tending to level out, and that a kind of economic stability was being reached. No clear-cut expectations of a major change in trend in costs or prices were expressed by farmers. The expectations for commodity prices were dominated by the optimistic majority who expected wool prices to remain about the same (62 per cent.) or to rise (10 per cent.). This would be expected to be a deterrent to expanded wheat production, but it was offset to some extent by a majority of farmers who expected wheat prices to rise (53 per cent.) or to remain about the same (37 per cent.). The major expectations in regard to cost items were a decline in bag and tractor prices, and a rise in fuel prices.

The general opinion is an expectation of the continuance of present conditions. No major change in price relationships between different commodities is expected to occur, and even those farmers expecting prices to change did not indicate any clear-cut plans to change operations as a result of these expected price changes. In a sense the farmer and his farm are in "equilibrium" with his expectations of the future trend of prices. This category undoubtedly includes the great bulk of producers in the sample.

Generally, the expressed majority opinions of farmers display a knowledgeable understanding of the factors influencing price trends of different items, and comments made by farmers as recorded in the report succinctly reveal some reasons for the opinions expressed.

Wheat Prices and Attitudes to Wheat Growing.

The link between the expected trends in prices and the effects of these expectations on the farmer's production programme is not so clear. Almost half of the farmers were not aware of the actual price which had already been guaranteed as a first advance on the 1952-53 wheat crop. Approximately 40 per cent. of growers stated they would prefer a higher first advance payment for wheat even if this meant a lower total payment eventually. This was a hypothetical question, but the proportion preferring the higher first advance is surprisingly high; it is evident that part of the lack of appeal of wheatgrowing can be attributed to the method of payment, especially when compared with wool. The present system is particularly unattractive to *new* wheatgrowers, since they must wait months or years for full payment. Established growers receive payments for earlier crops to offset delayed payments for the current crop.

A small minority of farmers indicated that they did increase wheat sowings in response to the announcement in March, 1952, relating to advances payable on the crop about to be sown. It was evident that the timing of the announcement and the authority making the announcement exerted important effects on the impression made by such publicity on farmers' plans.

Plans stated by farmers late in 1952 reveal that they expect to increase their wheat sowings in 1953 by approximately 36 per cent. on the 1952 level. However, it is likely that not all of this increase will be realized because of changes in plans, weather conditions, machinery breakdowns and other unforeseen circumstances. On the basis of previous experience of the extent to which such plans stated in advance are eventually realized, it seems likely that on the survey farms the increase in the 1953 wheat sowings as compared with 1952 will be nearer to 25 per cent. Such an increase could hardly be characterized as a major one in view of the fact that the exceptionally adverse seasonal conditions at sowing time last year not only depressed the 1952 acreage below the "intended" acreage but also resulted in considerable areas of fallowed land being "carried over" until 1953.

Attitude to Income Maximization.

The survey revealed that the idea of relaxation of effort on reaching a certain income is quite an unrealistic interpretation of the position of the majority of the farmers, more especially in the case of the younger farmer still establishing himself, and with family responsibilities existing in the present or likely to develop in the future. This conclusion might appear to contradict the fact that in recent years many farmers have concentrated on the relatively easier task of wool production, rather than wheat-growing. Consequently, the properties have not been farmed as intensively as their physical capacity would allow. The confusion arises partly from the fact that wool prices have been such that by working less, farmers could earn more. This does not prove that they would not work harder to earn more, if the opportunity existed. *The interpretation that farmers are farming their land at less than full capacity because they do not strive to maximize their income is not borne out by results of the survey.* This interpretation ignores the agronomic benefits in the long run of resting the land, the high comparative incomes obtainable from wool production, the shortage of labour in the immediate past and the additional risks and expenditure of cropping as compared with sheep production.

The survey suggested that the age of the farmer is the most important single factor associated with his response to opportunities to maximize income. This is particularly important because of the predominance of older men among the wheatgrowers. The age of the farmer is a rough indication of the range of economic conditions he has experienced, his present financial position, and of his willingness to engage in additional physical work or management responsibilities. Young farmers generally seek opportunities to improve themselves, while older farmers are less inclined to engage in physical work, but nevertheless still seek to earn as much as possible within the limits of their physical capacity and of their desire to rest the land.

1. INTRODUCTION.

The wheat industry is of major importance in the Australian economy, especially because of the potential contribution which an expansion of wheat production can make to the balance of payments problems of Australia and of the sterling area. The need for such expansion emphasizes the importance of accurate appraisal of the problems encountered by individual farmers in their efforts to increase production. It is evident that if incentives are to be the basis of national agricultural policy, they must in turn be founded on an accurate assessment of the attitudes and problems of wheat growers. This survey was designed to obtain up-to-date information relating to the position on wheat farms throughout New South Wales and to ascertain the attitudes and expectations of a random group of wheat growers in New South Wales.

The survey presents information of three major kinds. First, facts are given relating to the farms included in the sample, describing the size, the persons concerned in the management of the farm, expenditure on buildings, fences and machinery, the value of the farm, and the major features of crop and livestock management. A second category of information in this first part of the report relates to the farmer himself—his age, farming background, income level, debts, and his farming experience. The second part of the report is devoted to information relating to the farmers' expectations regarding future price trends and their views on measures necessary to increase production on their own farms and throughout the nation as a whole. In the third part of the report some individual farms and their operators' main problems and attitudes are described in detail.

The report is based on information obtained during October and November, 1952, from 128 farmers residing in the principal wheat-growing districts of New South Wales. These farmers were chosen at random from the electoral rolls. Persons whose occupation indicated that they exercised at least some degree of managerial responsibility in the operation of farms were eligible for inclusion in the sample. The persons interviewed were all either farmers, sharefarmers, graziers or property-managers. Horticulturists, dairy farmers and other small landholders were excluded. Furthermore, when a selected person was found to be operating a holding of less than 300 acres, he was omitted from the sample. Each person interviewed was asked a standard series of questions by one of the five interviewers who conducted the field work. Some questions were intended to throw light upon the farmer's attitude to various factors influencing production, and his expectations in regard to price levels. Other questions sought information concerning the farm of which he was the operator, or joint-operator. Consequently, the data presented in the report refer in some cases to farmers, and in other cases, to farms. This distinction is of considerable importance, more especially because a large proportion of the survey farms were managed by groups of persons, rather than by a single operator.

Details of the sampling method, a discussion of possible sources of bias, and a comparison of certain characteristics of the sample of farms with published information relating to all farms in the survey area are presented in the Appendix. There is some evidence for a tendency on the part of interviewers to exclude from the sample graziers who were not actually engaged in wheat-growing. The sample is more seriously

biased when it is regarded as a sample of farms, since the method of selection gave each farm a chance of selection in proportion to its number of operators. Consequently, the sample is biased in favour of large, partnership-operated farms. In summary, the sample approximated to a random sample of *farmers*, but less reliance can be placed on it when it is regarded as a sample of *farms*.

2. AGRICULTURAL, ECONOMIC AND SOCIAL FEATURES.

This report begins with an analysis of the 127 farms¹ in the survey in terms of the physical, economic and social characteristics of the farms or farmers. This part also serves as an introduction to later sections of the report, in which the attitudes and expectations of the farmers are analysed.

Agricultural Features.

Farm Size.

The average size of the farms in the sample was 1,811 acres. However, the most frequent farm size was between 751 and 1,500 acres which included 43 per cent. of the farms; 20 per cent. of the farms were less than 751 acres, 23 per cent. between 1,501-3,000 acres, and 14 per cent. above 3,000 acres.

Eleven of the 127 farms were bought by their present owners between 1948 and 1952. Of the 116 remaining farms, three were reduced in area between 1948 and 1952, ninety-five showed no change, and eighteen farms increased in area. These eighteen farms increased in area, on the average, by 73 per cent. The average size of all farms for which information for both years was available increased from 1,709 acres in 1948 to 1,831 acres in 1952—an increase of 7 per cent. in average farm area.

TABLE I.
Average Area of Survey Farms.

Average Area of—	Area.	Proportion of Total.
(a) Cleared Land	Acres. 1,182	Per cent. 65.3
(b) Uncleared Land—		
(i) Cultivable, if cleared	217	12.0
(ii) Suitable for grazing only	412	22.7
(c) Whole Farm	1,811	100.0

Table I reveals that some 35 per cent. of the land in the farms was uncleared, and the farmers themselves estimated that one-third of the uncleared farm land would be suitable for cultivation if cleared. However, as the farms are now organized, not all of this land will be cleared eventually as some of it is used as shelter belts for livestock. Under present management arrangements it is not used more intensively because other land is available on the farm.

¹One farmer interviewed was a sharefarmer who owned no land, so that the analysis applies to 128 farmers, but only 127 farms.

These data do not indicate the area within the cleared part of the farm which could be cultivated, but which is not cultivated at present. Nevertheless, they do reveal a significant area of land on the existing farms still available for further development by clearing.

Land Utilization.

All but six of the survey farms could be called wheat-sheep farms in the sense that they usually grew some wheat and carried sheep. (No wheat was, or had been, grown on three farms, and cattle, rather than sheep, were carried on three others.) However, in the case of some of the larger properties, the area of wheat sown was quite small, so that they would perhaps best be characterized as grazing properties. On the other hand, some of the farmers operating very small properties derived an appreciable proportion of their income from enterprises, such as pig or poultry raising, which are usually considered to be sidelines, and consequently are "mixed" farmers, rather than wheat-sheep farmers.

Tables II and III indicate, respectively, the area sown to wheat in 1952, and the breed of sheep carried on farms in various size-groups. As might be expected, there is some association between size of property and wheat acreage, and also between size of property and concentration on wool or sheep meat production. But the general picture is one of lack of clear-cut relationships either between the proportion of land devoted to cropping, and the type of sheep carried, on the one hand, and the size of the farm, on the other. The overall preponderance of low wheat acreages, and the large number of properties which run Merino sheep, are the two most striking impressions gained. These facts are a reflection both of the relative profitability of wool growing, and of the general prosperity enjoyed by farmers in recent years, which have enabled them, no matter what size their farms, to vary greatly the proportion of resources devoted to wheat growing and sheep raising, without undue loss of income.

TABLE II.

Area Sown to Wheat in 1952 on Farms of Different Sizes.

Wheat Area, 1952.	Number of Farms.				Total.
	Area of Farms (Acres).				
	301-750.	751-1,500.	1,501-3,000.	More than 3,000.	
Acres—					
Nil	5	8	4	3	20
1-150	14	22	4	4	44
151-300	5	20	9	3	37
301-600	1	5	12	3	21
601-900 ... ..	...	...	...	2	2
More than 900 ... ..	...	...	...	3	3
Total	25	55	29	18	127

TABLE III.
Breeds of Sheep Carried on Farms of Different Sizes.

Breed of Sheep.	Number of Farms.				Total.
	Area of Farms (Acres).				
	301-750.	751-1,500	1,501-3,000.	More than 3,000.	
Merino	6	23	13	13	55
Corriedale	9	14	12	3	38
Crossbred	4	7	3	...	14
Mixed breeds	4	7	1	1	13
English breed (stud) ... ..	...	2	...	1	3
No sheep	2	1	...	...	3
No answer ... ..	...	1	...	...	1
Total	25	55	29	18	127

Economic Features.

Management Pattern.

One of the most striking facts revealed by the survey is the frequency with which managerial responsibility on wheat-sheep farms is vested in more than one individual, but retained within the one family.

Table IV reveals that 40 per cent. of the survey farms were managed by a single owner-operator. On 60 per cent. of the farms, management was shared in some way between different persons. On 50 per cent. of farms in the survey the persons concerned in group management were all members of the same family.

The situation on the thirty-nine farms operated by partnerships was complicated by the fact that in three cases the partners leased their properties from their parents, in two cases they employed sons of the partners as sharefarmers, and in six cases they employed non-family sharefarmers. The salaried manager also employed a non-family sharefarmer.

These figures² suggest that the wheat industry can no longer be conceived—as it commonly has been in the past—as consisting predominately of single owner-operated farms. Many of the original settlers have now reached, or are nearing, the age of retirement, and have accommodated their sons in the family enterprise, either as sharefarmers, tenants or partners.

There is evidence, too, that farmers' sons who have acquired their own properties during their fathers' middle-age gradually assume the major responsibility for managing and working both properties as the father grows older. Often the son sharefarms the wheat land while the father takes all of the income from the sheep grazing on his own property. The equity of many of these informal sharefarming arrangements can be correctly appraised only when it is noted that the sons can reasonably expect to inherit some or all of the father's property.

² As indicated in the Appendix, the sample was biased in favour of multi-operator farms. Consequently, these figures almost certainly exaggerate the importance of group management. Nevertheless, it is considered that the proportion of survey farms operated by groups is so large as to establish the importance of group management on wheat farms in New South Wales.

TABLE IV.
Pattern of Farm Ownership and Management.

System of Management.	Number of Farms.	Percentage of Farms.
		Per cent.
1. Owner-operator* (labour, if any, employed for wages).	50 — 50	39
2. Operator employing sharefarmers †—		
A. Family—		
(i) Sons	16	
(ii) Other	4	
B. Non-Family	11 — 31	24
3. Partnerships ‡—		
A. Family—		
(i) Husband-wife	4	
(ii) Father-sons	15	
(iii) Brothers	9	
(iv) Other	10	
B. Non-Family	1 — 39	31
4. Tenant-operator§ leasing from parent ...	6 — 6	5
5. Salaried manager and absentee owner ...	1 — 1	1
Total	127	100

* Includes operators leasing farms from the Crown.

† A sharefarmer is defined as a person growing a wheat crop on the owner's land, sharing costs and proceeds with the latter in proportions customary for the district.

‡ Includes seven cases of informal (i.e., unregistered) partnerships, including three cases where father and son(s) own different portions of the one property.

§ Includes cash-rent tenants, and tenants receiving a share of total profits—as distinct from a share of the wheat crop only.

During the last decade circumstances have favoured the growth of complex patterns of management, particularly partnership-formation. (It is notable that there are almost as many father-son(s) partnerships—fifteen—as father-son sharefarming agreements—sixteen.) Technological changes—particularly the adoption of wider crop rotations and the introduction of tractors—have exerted pressure towards greater farm sizes, and the amalgamation of properties provides a means of taking advantage of these new techniques. Secondly, tax rates applicable to incomes now being earned by farmers provide an incentive to bring members of the family into legal partnerships in order to reduce the incidence of taxation. Thirdly, the shortage of labour has inconvenienced older farmers more than younger ones, and has encouraged farmers to develop their son's interest in the property by granting him a legal or informal right to an equity in the farm. This has encouraged sons to remain on the farm or to continue to share responsibility for its operation rather than branch out completely on their own account. The 128 farmers had 101 sons engaged in farming. Of these, fifty-four were working on the properties of the farmers interviewed, and their relationship to the farm management pattern was as shown in Table V.

The sons sharefarming or working as employees on their fathers' farms could, in most cases, reasonably expect to inherit part of the farm. In many cases one son would be established on his own farm, while another would remain on the home farm without any legal equity in the farm. The advantages of the partnership agreement include a sharing of responsibility for management of the farm, and a formal written agreement as to the rights of each party. Both influences tend to preserve the interest and welfare of the younger generation and thereby encourage them to fit themselves for full managerial responsibilities in later life.

TABLE V.

*Occupation of Sons of Farmers Interviewed.**

Where Employed.	Status.	Number of Sons.
On father's farm	Partner	18
	On shares	10
	Employee	10
	Status not known	16
		54
On other farms	Own farm†	46
	Sharefarming	1
		47
In other occupations ... ..	.....	15
Total ... ..	.....	116

* In some of the cases of father-son partnerships and sharefarming arrangements enumerated in Table IV, the son, rather than the father, was interviewed, and consequently would not be included in the analysis presented in Table V.

† In a number of these cases the son sharefarms or assists on the father's property.

The existence of these group management patterns, particularly between fathers and sons, infuses many elements of management into the farm business which would otherwise be absent. Differences in attitudes and skills are associated with age and past experience, and such differences would have to be resolved in any management system operated by more than one farmer. Some evidence concerning these differences in attitudes and expectations was obtained from the survey. For example, of twenty-two farmers under the age of 35 years, sixteen thought the present prospects for investment in farm improvements were favourable, while of twenty-seven over the age of 60 years, only eight were of this opinion. Similarly, as shown in Table VI, there was an association between respondents' ages and their expectation that, in the next twelve months, costs and prices would move such that farmers' incomes would either rise, fall or remain the same. The young men tend to be more optimistic regarding future incomes than do the old.

TABLE VI.
Relation Between Farmers' Ages and Income Expectations.

Income Expectation.	Number of Farmers.	
	Farmers less than 50 years.	Farmers 50 years and over.
Up	26	13
Same	13	18
Down	24	31
Total	63	62

These differing attitudes suggest that at times a conflict of interest may arise between fathers and adult sons. In cases where additional cropping was contemplated, for example, the sons were mainly responsible for the additional work required, whereas the parent's added responsibilities would be far less. Sometimes sons, anxious to accumulate capital, take the lead in expanding operations. Decisions regarding soil conservation also involve reconciliation of interests when sacrifice of present income or some additional investment is needed to ensure preservation of the fertility of the soil.

Generally, the infusion of the influence of younger men in management decisions tends towards greater receptiveness to new techniques and practices. The extent of the dominance of the viewpoint of younger members by older farmers varied from farm to farm, and especially according to the nature of the decision to be made. In many cases where farmers were quite old, yet nominally managing the farm, the real managerial authority rested with the son.

Group management, particularly between persons of succeeding generations, also instills an element of planning and long-term development which may not otherwise be evident, unless a single operator takes cognizance of the need to develop his farm for the future use of his children. In either case the willingness to invest and the response to incentives both involve reconciliation of the often conflicting short-term interests of different members of the family group. The effect of group management on farm operations is an essential aspect of farm management and receptiveness to extension recommendations which has not yet received the attention which its importance justifies.

Farm Labour Force.

The measurement of the total labour force employed on the survey farms is complicated by the fact that some persons employed do not contribute to the particular farm included in the survey, the work equivalent of an adult male fully-employed. Persons in this category include sharefarmers, youths, men of extreme age, daughters of operators³, partially incapacitated persons, and men employed off the property for an appreciable portion of the year. In this report the convention has

³ In the few cases where they take an active part in the farm operations.

been adopted of valuing the services of such persons as the equivalent of 0.5 of an adult man, fully employed on the farm. Although this arbitrary valuation may lead to misrepresentation of the labour situation in individual cases, it is thought that it gives a reasonable appraisal of the position when farms are considered in the aggregate. However, in the case of sharefarming by members of the operator's family—in most cases his son(s)—where the family sharefarmers are fully-employed on the home farm the sharefarming agreement is best considered as a type of income arrangement between persons fully-employed on the farm. Consequently such family sharefarmers have been classified as adult, fully employed persons. However, non-family sharefarmers, and family sharefarmers, *who also work properties on their own*, have been treated as "half" labour units.

A total of 316 persons was employed on the 127 survey farms, but of these, forty-six persons each contributed approximately half the work equivalent of an adult, fully employed male. The total labour force has therefore been estimated at 293 adult male labour units. Of this total, sixty-six labour units, or 22 per cent. were supplied by non-family labour. The composition of the labour force is set out in more detail in Figure I. The high proportion of family members who are either partners or sharefarmers is noteworthy.

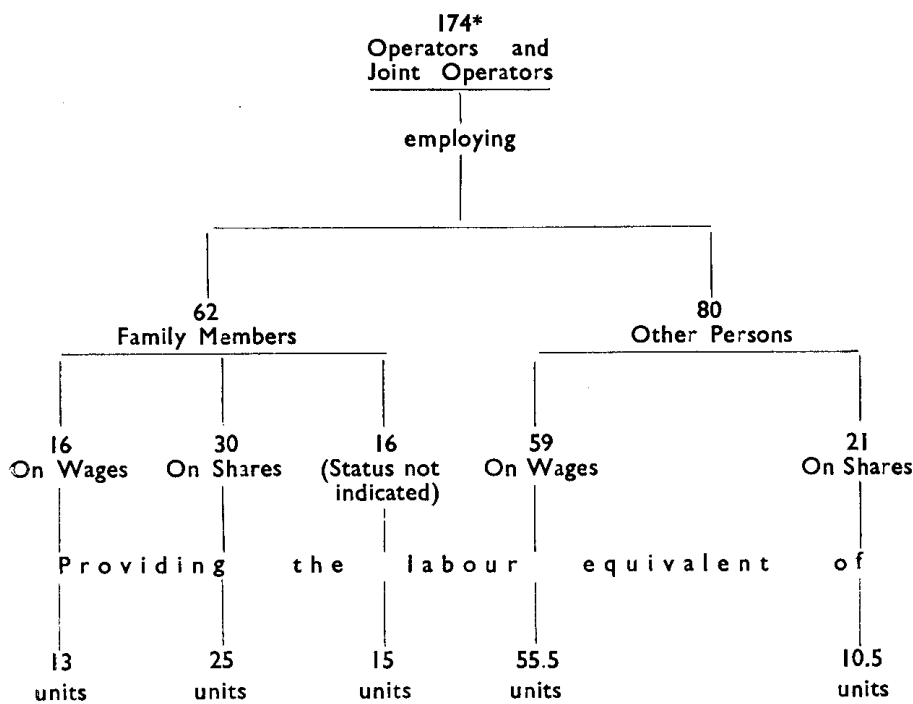
Farms have been classified, in Table VII, according to the size and composition of their labour force. On seventy-nine (66 per cent.) of the survey farms, the permanent labour force consisted entirely of family members and only eleven (9 per cent.), of the farms used mainly or wholly non-family labour. Table VII also shows the predominance of one and two-man farms in the New South Wales wheat belt. Only forty-seven, or 37 per cent. of the 127 survey farms, were operated by more than two men. However, in terms both of the total number of men employed (of whom they account for more than half) and possibly of their contribution to total production, this group of farms is of more importance than the more typical size group.

TABLE VII.

Size and Composition of Labour Force on Survey Farms.

Character of Farm Labour Force.	Number of Farms.							Total.
	Estimated Number of Permanent Male Workers per Farm.							
	1.	1.5.	2.	2.5.	3.	3.5- 4.5.	5 or more.	
Wholly family labour ...	30	5	30	4	9	...	1	79
Mainly family labour ...	...	4	...	4	10	2	3	23
Half family labour ...	...	...	11	...	...	2	1	14
Mainly non-family labour ...	...	...	...	3	3	3	1	10
Wholly non-family labour ...	...	...	...	...	...	1	...	1
Total ...	30	9	41	11	22	8	6	127

FIG. I—COMPOSITION OF THE LABOUR FORCE ON SURVEY FARMS



*Includes eighty-eight single operators and eighty-six members of partnerships. Only active partners have been included.

Value of the Farms.

The information obtained from the survey was not intended to be complete in so far as farm valuations were concerned. Nevertheless, in the course of the analysis of expectations and attitudes it was hoped to analyse relationships between these and such "background" data as the value of the farm operated, the farmer's debts and his net worth. The farmer was therefore invited to make an estimate of the value of his farm, and of the stock and plant. These estimates by the farmers, in co-operation with the interviewers, were necessarily approximate, but provide an indication of the scale of investment on the farms in the sample. The information was obtained from 123 farms of the 127 farms in the sample. The values relate in most cases to freehold values; in cases of Crown Leases or private leases the equity of the Crown or of the landlord is included in the estimates.

TABLE VIII.
Average Investment per Farm

	£
Farm—Improved Value	25,429
Livestock	4,454
Plant	3,390
Total	33,273

It is apparent that much of the wealth of the farmers is invested in the farm land itself and in improvements to the property. On the basis of the average farm size for the farms in each region, the average improved value of all land in the farms was £14 6s. per acre. This is somewhat low, but is an average value relating to grazing and uncleared land as well as to cultivation land.

TABLE IX.

Frequency Distribution of Estimated Total Value of Land, Stock and Plant on Survey Farms.

Farms.	Thousands of Pounds.							Total.
	Under 10.	10-19.	20-29.	30-39.	40-49.	50-75.	Over 75.	
Number ...	8	35	30	18	11	14	7	123
Percentage ...	7	28	24	15	9	11	6	100

Table IX reveals that the majority of farms have a value of between £10,000 and £40,000.

Financial Status of Farmers.

The data on the financial position of the farmers interviewed provides a revealing picture of the wealth, income levels, and debts of the farmers in the sample. The 1951-52 taxable income of the farmers interviewed is shown in Table X. It should be emphasized that this income is not a measure of net farm income, since, for example, it is calculated after allowing personal deductions. Depreciation on some farm plant at 20 per cent. is also included as a deduction, as is interest on borrowed capital invested in the farm. These qualifications need to be constantly recognized in interpreting the results. Furthermore, the incomes are estimates in cases where a total partnership income was available; if knowledge of the actual income of the individual farmer was not available the partnership income was assumed to be divided equally between all members. Partnership income for husband-wife partnerships was assumed to be earned by one farmer only.

Although £1,001 to £2,000 was the most common taxable income range of those ranges adopted in Table X, 47 per cent. of the farmers interviewed had a taxable income of over £2,000 in 1951-52. Evidence presented elsewhere in this report suggests, though far from conclusively, that farmers with *taxable* incomes below £2,000 are not greatly concerned with the effects of taxation on their production programmes. (See pages 51-53.) Approximately one-third of the farmers had taxable incomes above £3,000.

TABLE X.
Taxable Incomes, 1951-52.

Income.	Number of Farmers.	Percentage of Farmers.
		Per cent.
Under £1,001	20	16
£1,001-£2,000	45	37
£2,001-£3,000	21	17
£3,001-£5,000	25	20
£5,001-£10,000	10	8
Above £10,000	3	2
Total	124	100

Information relating to farmers' indebtedness is set out in Table XI.

Additional information concerning the financial status of farmers was obtained by means of two questions: (i) "Could you finance further investment in the farm without borrowing?" and (ii) "Could you borrow money at present (say £1,000) to invest in farm plant or improvements?" The situation on the survey farms may be summarized as follows⁴:—

1. Seventy-one farmers⁴, representing 60 per cent. of those from whom this information was obtained, were free from debt.
2. Another eleven farmers had quite insignificant debts, owing, on the average, little more than £400 each.
3. The average amount owed by the forty-eight farmers in debt was £4,545, but this average was heavily influenced by the fourteen farmers owing more than £5,000 each, whose total debts accounted for two-thirds of the total amount owed by all farmers.
4. Three farmers owed in the vicinity of £20,000 each. All had acquired substantial areas of land in the last two years.
5. Fifty-six (or 79 per cent.) of the debt-free farmers stated that they could finance further investment in their farms without borrowing. This indicates that they had accumulated liquid reserves in addition to normal working capital. However, there is the possibility that some of them misinterpreted the question, as it is sometimes difficult to differentiate between working and other capital required for investment.
6. Only ten of the debt-free farmers, in answer to a question on their expenditure and financial progress during the last three years, indicated that they had repaid debts. This suggests that the remainder had had no debts for a number of years. However, no specific inquiry regarding the repayment of debts was made.
7. Half of the forty-eight farmers in debt stated that they had reduced the size of their debts in recent years.

⁴ For convenience, the word "farmer" is used in this and following paragraphs to indicate either a single operator or a group of partners managing the same farm.

8. Eleven of the farmers in debt said that they could finance further investment without borrowing. In some cases their answer may have implied that they were not at the time drawing on their overdraft to the full extent allowed by the bank (i.e., for which overdraft rights had been obtained). But in other cases presumably they had liquid reserves partially offsetting their debts.

9. All but seventeen of the 126 farmers who answered the question considered that at the time of interview they could borrow at least £1,000, if they so desired.

TABLE XI.
Debt Status of Farmers.

Debts per Farmer.	Number of Farmers.	Percentage of Farmers.	Average Indebtedness per Farmer.	Total Amount Owing.	Percentage of Total Amount Owing by each Group.
		Per cent.	£	£	£
Nil	71	60	...	...	...
£1,000 or less ...	11	9	414	4,550	2
£1,001-£5,000 ...	23	19	3,218	74,025	34
Above £5,000 ...	14	12	9,971	139,600	64
Total ...	119	100	1,833	218,175	100

The relatively low level of indebtedness is largely a reflection of the prosperous times that wheat and wool growers have enjoyed in the post-war years, but it is noteworthy that a high proportion of the farmers were, apparently, free of debt before the 1950-51 wool boom. This suggests that a large group of farmers have been either unwilling, or not obliged to borrow, or that they placed the repayment of debts high in their order of priorities of expenditure early in the period of post-war prosperity⁵.

In contrast to the majority whose credit status was such that they could borrow additional money (£1,000) were those few farmers who declared that they could not. Four of the seventeen farmers in this position were tenants or sharefarmers (three of them on their fathers' farms) and although they could not borrow, their landlords (sometimes their father) could. Another was an ex-serviceman settled under the War Service Land Settlement Scheme, who had little capital of his own. The remainder were mainly the owners of small, sub-standard farms or farms in marginal wheat areas.

Expenditure and Investment.

It is a matter of major importance to determine the way in which the additional purchasing power in the hands of farmers in recent years has been spent. One of the most outstanding impressions secured during the field interviews was the general reaction of farmers to the 1950-51 wool boom. There is no doubt that the bulk of farmers regarded these prices as exceptional, and did not count on their continuance, either when planning their farm-spending programmes or in their estimates of

⁵ See page 47 for a discussion of farmers' attitudes to borrowing.

future incomes. Consequently, the general level of farm expenditure was not greatly changed by the rise in wool prices in 1950-51, though some additional expenditure on consumer durables (cars, refrigerators, etc.) and on new houses, was in evidence. But the general picture is one of saving of this windfall gain, either by the reduction of debts or by the accumulation of bank balances, if the farmer were already free of debt. The increased investment in buildings, farm houses, machinery and fences appears to be sustained by and founded on a lower price level than the 1950-51 wool prices; the cost-price relationships in the wool industry in 1949-50 and 1951-52 appear to be capable of sustaining the level of investment observed. The high level of wool prices appears to have carried the required investment in the wheat industry in its wake.

No attempt was made to secure a complete record of expenditure in past years. But farmers were asked in general terms to indicate the main ways in which they invested their capital in the last three years. While some farmers showed no marked rise in income or even a decline in 1950-51, the bulk of the farmers were quite responsive to this question in terms of the effects of higher incomes from wool received since 1948-49, and indicated the main capital investments made in recent years.

The results have been listed in Table XII, which shows the number of farmers who mentioned they had spent money on each of the items listed, *during the last three years*. The items were listed for the farmer, who indicated whether he had invested in each particular item. The farmers are shown, classified by taxable income in 1951-52.

TABLE XII.

Number of Farmers Investing in Specified Items since 1949 in Relation to Taxable Income Per Farmer.

Taxable Income 1951-52 (£).	Less than 1,001.	1,001- 2,000.	2,001- 3,000.	3,001- 5,000.	5,001 or more.	Income not Available.	Total Farmers.
Number of Farmers in each Income Group ...	20	45	21	25	13	4	128
	Number of Farmers Spending Money on Item Listed.						
Item of Expenditure—							
Fences	9	26	14	17	10	4	80
Machinery	9	26	9	15	7	2	68
Cars	4	22	12	14	7	3	62
Buildings	9	17	12	12	6	2	58
Tractors	3	16	7	12	6	2	46
Domestic	6	13	9	9	4	...	41
Trucks	4	15	5	11	3	3	41
House	6	9	10	7	6	1	39
Debts	7	13	8	4	3	1	36
Water Improvements	1	9	3	5	3	1	22
Bank Deposits	1	4	6	6	4	...	21
Land	1	4	2	1	2	...	10

Expenditure in fencing is the most common item mentioned by farmers in all income groups. The shortages of materials in the past decade have led to a great back-log in fencing construction and maintenance. One other reason for its high ranking is the fact that it is a highly "divisible" item of investment which can be spread over a number of years, whereas many of the other items (e.g., motor vehicles, machinery and land) necessitate larger lump-sum expenditure.

When the number of farmers in each income group who have spent money on each item is analysed, it is evident that the pattern of expenditure varies somewhat according to taxable income. The proportion of farmers spending money on machinery and buildings is approximately the same in each income group. Expenditure on fences, however, is relatively more common in the higher income groups. As would be expected, repayment of debts is frequent in the lower income ranges (below £1,000) and accumulation of bank balances is more common in the higher ranges (above £2,000). The data refer to the number of farmers spending money without reference to the amount spent.

Apart from the general guidance provided by the above information, more specific information was secured in reference to farm structural improvements by asking farmers for details of actual expenditure in 1952 and planned expenditure in 1953.

Farm Structures.

The expenditure in 1952 and 1953 for major items of structural improvements on the survey farms was as shown in Table XIII. The information refers to replacements or substantial improvements and not to normal maintenance and repairs.

TABLE XIII.

*Expenditure on Structural or Land Improvements.**

Nature of Expenditure.	1952.			1953.		
	Actual Total Expenditure.	Number of Farms.	Average per Farm Incurring Expenditure.	Planned Total Expenditure.	Number of Farms.	Average per Farm Incurring Expenditure.
	£		£	£		£
Fencing	16,935	54	314	24,460	76	322
Shearing sheds	3,350	7	479	4,555	15	305
Fodder storage sheds	410	2	205	2,870	8	359
General sheds	2,100	10	210	5,155	21	245
Employees' quarters	2,070	5	414	1,590	5	318
Silos	1,190	5	238	2,290	10	229
Sheep dips and yards	190	1	190	350	3	117
Water conservation	3,845	14	275	2,105	10	210

* The information refers to 96 farmers from whom information relating to farm expenditure was obtained. The data for fences, however, refer to 110 farmers.

This information reveals a widespread expansion of investment in farm buildings and particularly in shearing sheds on the farms included in the survey. The replacement or substantial repairs to seven shearing sheds in 1952 and fifteen in 1953 represents a new or renovated shearing shed on 24 per cent. of the farms in these two years.

These plans relating to shearing sheds are additional to those relating to other sheds in which a substantial increase in building during 1953 is contemplated. Even in 1952 the rate was high—twelve new units have been constructed (new sheds or garages) and twenty-nine more are planned for 1953. Similarly, ten farms intend to provide or have provided employee accommodation. Even allowing for overstatement of 1953 plans, it is evident that substantial building reconstruction is to be carried out. In many cases materials were already on hand for planned reconstructions.

All of this expenditure is important because it is a measure of investment in these items which has been made possible by the wool incomes experienced in recent years. The items are often regarded as postponable costs, but the age of present structures and the urgent need for replacement is such that further postponement may lead to inefficiencies in production, or to concentration on enterprises which require less substantial outlay of capital in lump sums. Here again is evidence of the need to appraise the position of the farmers in time. After many years of a low investment rate, either because of low incomes in the thirties or unavailability of materials and labour during the last decade, the farms now require an inflow of capital assets to maintain current production programmes. This capital is to be devoted to long-term investments such as buildings or fences. Much of this investment is necessary to eliminate the backlog which has developed over the last decade and which needs to be removed before expansion can occur. Many of the buildings being replaced are obsolete.

The interviewers sought from each farmer an estimate of the total miles of fences on the property, the proportion of the property netted, and the expenditure actually made on fences in 1952, and planned in 1953.

According to the farmers' estimates, which were necessarily approximate, the average length of fences per farm was 15.6 miles on the 110 farms for which information was available; 59 per cent. of the mileage of fences was wire, and 41 per cent. was netted.

The expenditure on fences on the same 110 farms in 1952 and 1953 reveals the investment which has been made and is expected to be made in fences. The expenditure per farm for all of these farms refers to major capital replacements of fences and it excludes normal repair and maintenance. If it is assumed that one mile of fencing, on an average costs £200, the expenditure actually made in 1952 amounts to the erection of .75 miles per farm, or 4.8 per cent. of the fences existing on the properties. However, some of this fencing would be new subdivisional fencing. Expenditure planned for 1953, which may not all be realized, would represent 1.12 miles per farm, or 7.8 per cent. of the existing fences. These rates of expenditure reveal some attempt on the part of farmers to increase the quality and quantity of farm fences, an attempt which is made possible by the additional purchasing power at their command arising from recent levels of wool prices, and the recent improvement in the supply of fencing materials.

Farm Houses and Employee Accommodation.

The survey revealed that seventy-two of the 128 farms in the survey had a single house on the farm, and thirty-nine had two houses per farm. The details are as presented in Table XIV.

TABLE XIV.
Houses Per Farm on Farms in Sample.

Number of Houses per Farm.	Number of Farms.	Percentage of Farms.
		Per cent.
0	2*	1.6
1	72	58.1
2	39	31.5
3	7	5.6
4	1	.8
5	1	.8
6	2	1.6
Information not available	4	...
Total ...	128	100

* Including sharefarmer who did not own land.

In addition to the houses, twenty-eight of the farms (22 per cent.) had employee accommodation, i.e., single men's quarters such as shearer's huts. The age of these quarters has not been included in the following analysis of the age of farm houses.

The age of the farm houses reveals not only one measure of the rate of investment in past years, but it also provides an indication of the probable investment required in the future to maintain or replace the existing houses. However, many of the older houses were substantially built and renovations have since kept them in good condition.

TABLE XV.
Age of Farm Houses.

Date of Construction.	Number of Houses.	Percentage of Houses.	Houses per 100 Farms per annum Constructed in Period Shown.
		Per cent.	
Pre 1900 ...	6	3.3	...
1901-1910 ...	34	18.8	2.74
1911-1920 ...	37	20.4	2.98
1921-1930 ...	40	22.1	3.23
1931-1940 ...	30	16.6	2.42
1941-1945 ...	7	3.9	1.13
1946-1950 ...	13	7.2	2.10
1951 ...	8	4.4	6.45
1952 ...	6	3.3	4.84
Information not available ...	11	...	
Total ...	192	100.0	

The age pattern indicates that forty of the 181 houses were built prior to 1911, and thirty-seven in the decade 1911-1920. Together these represent 40 per cent. of the farm houses which are now over thirty years old.

The lag in building during the war years is evident, and the increased rate of building in recent years, and particularly since materials have been available in 1951 and 1952 is also apparent from these results. The estimates of houses built per annum per 100 farms assume that all houses built since 1901 are still standing, whereas in fact some would be abandoned or destroyed by fire.

Farm Vehicles and Tractors.

The number of vehicles per farm and the age of vehicles was obtained during the survey. These results, presented in Table XVI, give some measure of the investment in power units and vehicles on the farms particularly when considered in relation to age of vehicles.

TABLE XVI.

*Number of Tractors and Farm Vehicles Per Farm.**

Number per Farm.	Tractors.		Cars.		Vehicles† (other than cars).	
	Number of Farms.	Percent- age of Farms.	Number of Farms.	Percent- age of Farms.	Number of Farms.	Percent- age of Farms.
0	15	12	18	17	15	12
1	70	57	71	68	89	71
2	32	26	11	10	15	12
3	5	4	4	4	2	2
4	...	...	...	...	2	2
5	...	...	1	1	1	1
6	1	1	...	...	...	...
No answer	5	...	23	...	4	...
Total	128	100	128	100	128	100
Average Number per Farm	1.26		1.05		1.11	

* The sharefarmer's vehicles have been included.

† Includes Trucks, Utilities, Jeeps, Land Rovers.

A substantial proportion—eighteen (17 per cent.) of the farms—had no car, but in twelve cases such farms had a utility, which is listed in the "other vehicles." All of the remaining six farms, had a truck. The bulk of the farms without tractors employed sharefarmers.

There were thirty-eight utilities in the "other vehicles" listed. Their age is shown separately in Table XVII which shows the age of the vehicles represented in Table XVI.

TABLE XVII.
Age of Farm Vehicles and Tractors.

Year of Manufacture.	Age in Years.	Cars.	Utilities.	Trucks.	Tractors.
		Number.			
Pre 1930	(say) 25	1	3	8	2
1931-1935	(say) 19	2	1	5	12
1936	16	4	...	6	9
1937	15	4	1	4	11
1938	14	4	2	5	5
1939	13	1	3	...	2
1940	12	2	1	5	6
1941	11	...	1	2	3
1942	10	2	1	10	5
1943	9	...	1	...	1
1944	8	...	1	2	5
1945	7	1	1	3	9
1946	6	3	1	2	9
1947	5	5	1	3	3
1948	4	9	2	10	11
1949	3	12	4	8	21
1950	2	30	7	12	15
1951	1	21	7	12	15
1952	...	5	...	2	3
Age not available	...	4	...	...	...
Total	...	110	38	99	147
Average age in years	...	4.7	7.5	8.7	8.0

The heavy concentration of purchases of motor cars in 1950 and 1951 is notable. On the other hand, the post-war increase in tractor purchases has been more evenly maintained since 1948. The reduced supplies of tractors during the war is also revealed, though there was an upsurge of demand after the war, particularly in 1949. Increased buyer resistance in 1952, as well as approaching saturation of the market for new demand (not replacement demand) is reflected in the small purchases in 1952. Ten months of 1952 had passed at the time of the interviews.

The age of existing vehicles does not necessarily reflect all of the expenditure in past years as is the case for houses, for example. There may have been a substantial turn-over of cars and other vehicles.

Present and Planned Farm Operations.

Pasture Improvement.

During the last decade many wheat-sheep farmers have introduced a major innovation into their farming programmes by carrying out pasture improvement. The greatest scope for pasture improvement exists in the better-rainfall areas of the southern districts, where permanent stands of subterranean clover can be established. It is in the south, too, that the greatest need for pasture improvement exists; many areas have

been overcropped and severely infested with skeleton weed. The most popular means of improving pastures there is the sowing of subterranean clover and Wimmera rye grass as a mixture, but sometimes only one or other of these species is sown. In the north, lucerne is the only improved pasture species used to any extent. It may be utilized either as a grazing or as a hay crop. Information concerning total areas of lucerne only was collected from the survey farms.

The survey provided convincing evidence of farmers' widespread and growing interest in pasture improvement. In 1952 improved pastures (including lucerne) had been sown on eighty (or 63 per cent.) of the survey farms. In addition, four farmers intended to sow improved pasture or lucerne in 1953 for the first time, and several farmers were only temporarily without any improved area. The majority of those farms on which no improved pastures had been sown were located in areas climatically less suitable for their establishment.

TABLE XVIII.

Number of Farms with Improved Pastures.

Region.	Area of Improved Pasture per Farm.				Total.
	None.	Less than 100 acres.	100-499 acres.	Over 500 acres.	
	Number of Farms.				
Northern	20	14 (12)*	4 (3)	...	38
Central	10	10 (4)	5 (1)	2	27
Southern	17	6 (1)	27	12	62
Whole Area	47	30 (17)	36 (4)	14	127

* Numbers in brackets indicate the number of farms where lucerne only has been sown.

Table XVIII reveals that improved pastures have been sown on a higher proportion of southern farms than in other districts, and that in the northern region lucerne is relied on almost exclusively. Some of the small areas of lucerne noted are probably hay rather than grazing stands.

Pasture improvement is a relatively new technique that has been widely adopted in recent years; the majority of the survey farmers practising it at present did not commence to do so until 1945 or later, and more than a third commenced in the last three years. As a result many farms have some improved pasture, but a large number of these have only small acreages. Thus there is considerable scope for expansion on those farms which have already commenced pasture improvement, quite apart from the adoption of the practice by more farmers.

Forty-nine farmers indicated that they intended to increase their pasture sowings in 1953. Another nine farmers said they had the same intention but their answers to other questions did not confirm this; it is likely, however, that at least some of these nine farmers *do* intend to sow more pastures. If all the intended increases are realized the total area of improved pasture on the survey farms will rise from

approximately 20,000 acres in 1952 to approximately 26,000 acres in 1953, an increase of about 30 per cent. The average intended increase in area on those farms where an increase is contemplated is 36 per cent. Although some over-statement of plans is to be expected, these figures indicate that a significant increase in acreage can be expected.

Almost as significant as the importance of pasture improvement in the pattern of land use is the prominent place that it is assuming in farmers' thinking. When farmers were asked "How do you consider that money could best be spent to increase your income?" the most frequent answer was "by pasture improvement" (see Table XXI). Increased subdivision of properties—an important aspect of the efficient management of improved pastures—was also high on the list of answers to this question.

Wheat Growing.

The area sown to wheat in New South Wales has fallen every season since 1947-48, and in 1952-53 it reached the lowest level for thirty years, with the exception of the 1943-44 season. The wheat area on the survey farms shows the same trend since 1950. Figures of wheat areas on survey farms for earlier years were not obtained because of expected memory bias and change in farm ownership. As shown in Table XIX the percentage decline in wheat areas on survey farms and in New South Wales as a whole differ somewhat. (The "actual" wheat acreage in 1952-53 used in the compilation of Table XIX is an estimate, and is subject to alteration.) The survey farmers were asked how much wheat they intended to sow in the following season and, as shown in Table XIX, existing plans were for a 36 per cent. increase in total wheat area. However, weather conditions, changes in plans, machinery breakages and other factors may be expected to reduce the actual area sown to wheat. On the basis of previous experience it seems likely that the increase in 1953-54 wheat sowings on survey farms will be nearer to 25 per cent.

TABLE XIX.

*Changes in Wheat Areas in New South Wales and on Survey Farms,
1952-53 = 100.*

	1950-51.	1951-52.	1952-53.	1953-54.
Survey Farms	125	112	100	136*
"Actual" N.S.W. Acreage	123	105	100	...

* Intended area.

The decline in the area of wheat in New South Wales in 1952-53 as compared with 1951-52 is probably largely the result of unfavourable weather conditions during the sowing period in the southern and central portions of the wheat belt. Many of the farmers interviewed in this area mentioned that wet weather had prevented them from sowing their intended areas. Ten farmers in southern areas did not succeed in planting any wheat because of the wet weather during the sowing period.

As shown in Table XX the survey suggests that the decline in wheat sowings in recent years has been mainly the result of a curtailment of wheat production on the smaller (less than 1,500-acre) farms. The high wool prices in recent years seem to have enabled many small farmers to adopt farming methods which are less exploitative of soil fertility. Wider rotations are becoming necessary in many parts of the wheat belt, and while many farmers have probably been aware of this for some time, they were unable to spell their land previously because of the resultant drop in income. High wool prices have enabled many small producers to adopt wheat rotations which are more desirable from the agronomic point of view.

TABLE XX.

Changes in Wheat Acreages by Size of Farm.

1952-53 = 100.

Farm Size.	1950-51.	1951-52.	1952-53.	1953-54.
Under 750 acres	144	133	100	179
751-1,500 acres	167	135	100	137
1,501-3,000 acres	110	105	100	117
Over 3,000 acres	100	92	100	135

Although it is intended to increase wheat acreages on farms in all four area groups in 1953-54, the intended proportionate increase is largest on farms of the under-750 acre size group.

Methods of Increasing Farm Income.

Table XXI lists farmers' answers to the question cited on page 34 as to how money could best be spent to increase farm income. The close similarity between farmers' assessments of the most profitable lines of development on their properties, as revealed by this question, and the actual developments now taking place, as discussed in earlier sections of this report, is noteworthy. *Expenditure on pasture improvements and on fencing are the two most popular types of investment being carried out on survey farms, and these are considered the most profitable by survey farmers.* In Table XXI, the item "fencing" would include, in many cases, subdivisional fencing. Specific references to additional subdivisional fencing have been classified separately, however. The frequency with which "clearing" was mentioned by farmers is of interest, particularly in view of the fact that more than a third of the total area of the survey farms is uncleared. Most of the farmers mentioning this item owned properties in the rougher, less developed country in some of the northern and central shires—particularly Coonabarabran and Namoi.

TABLE XXI.
Methods of Increasing Farm Income.

Suggested Method.	Number of Farmers Giving Suggested Method.		
	First Mention.	Other Mention.	Total.
Pasture improvement	44	8	52
Fencing	10	12	22
Water improvement	8	14	22
Clearing	11	7	18
Subdivision	5	11	16
Erosion control	3	8	11
More or larger plant	6	4	10
Additional buildings	6	4	10
More sheep	1	5	6
More land	4	1	5
Rabbit control	1	3	4
Fodder conservation ... ..	...	2	2
Other	6	2	8
No possible method	18	...	18
No answer	5	...	5
Total	128	...	...

An important group of eighteen farmers maintained that their properties were being run in such a way that there was no possibility of increasing farm income. An inspection of their schedules indicated that this might be true of nine farmers⁹. Of the remainder, six intended to increase their sowings of improved pasture (in most cases the increase was to be of the order of 50 to 100 acres), and two intended to increase (appreciably) the area of wheat sown in 1953.

Social and Family Characteristics.

As is shown in the discussion of the management pattern of each of the farms, the influence of family life and family responsibilities in the management of the farms is very great. Some recognition of these factors is required if an understanding of management problems is to be obtained, and to this end some of the information collected was centred on the family life and farming experience of each farmer. The case studies presented later in this report reveal the effect of family responsibilities on the individual farmers described there.

Marital Status.

Table XXII reveals that eleven of the 128 farmers were single, and that seven married farmers had no children.

⁹ For example, on one 1,600-acre property, of which 400 acres were suitable for grazing only, 600 acres of wheat and 200 acres of oats were grown and 1,100 breeding ewes, 500 dry sheep and 20 cattle were carried in 1952. In another 950-acre property 1,200 sheep were carried and 350 acres of crop were grown; while about 1,700 acres were cropped and 6,800 sheep and 300 cattle were carried on an 8,600-acre property, of which 5,600 acres were suitable for grazing only.

On the other hand, it may be possible for the operators of these properties to increase their incomes by reducing costs rather than by increasing production. It is significant that no farmers mentioned this method of increasing income.

TABLE XXII.
Family Position of Farmers in Survey.

Family Position.	Number of Farmers.	Percentage of Farmers.
		Per cent.
Farmer, single	11	9
Farmer, married (no children)	7	5
Farmer, married (with children)	110	86
Total	128	100

In the case of the 110 farmers with children, the average numbers of children were as follows:—

Adult ⁷ sons per farmer	1.03
Junior sons per farmer	0.72
Adult ⁷ daughters per farmer	0.75
Junior daughters per farmer	0.65

It is probable that some farmers omitted to mention adult married daughters among their children, leading to the unusually low numbers in this group. Many farmers were conscious of family responsibilities which influenced their attitudes particularly toward development and investment in the farm; frequently the need to conserve the soil was mentioned in relation to the desire to hand on a well-preserved farm to the farmer's sons.

Occupation of Farmers' Sons.

The present occupation of sons of farmers interviewed indicate the close ties which exist within rural families and the way in which these ties influence the occupation of the sons. Table XXIII shows the position regarding sons of the farmers interviewed and information collected enables the present occupation and status on the farm of the sons concerned to be described.

TABLE XXIII.
Sons of Farmers Interviewed.

Farmers' Sons.	Number of Farmers.
No sons	30
Young sons, not yet in occupation	44
Sons occupied	46
Both young sons and occupied sons	7
No answer	1
Total	128

When the present occupation of 116 sons of the fifty-three farmers in Table XXIII is examined, the occupations were as is shown in Table XXIV.

⁷ An adult was defined as a person of eighteen years or more.

TABLE XXIV.
Occupation of Farmers' Sons.

Occupation.	Number of Sons.
Farming	101
Labouring—	
In rural areas	3
In city	4
City—office or professional	8
Total	116

When the nine families which supplied the fifteen sons in non-farming occupations were examined, it was found that in every case the original family was large, in most cases with more than three sons.

Progress from Employee to Farm Operator.

Inquiries from the farmers also revealed the way in which they had progressed through different stages of independence, from employee to employer, as they gradually became established.

Each farmer was asked to indicate (a) when he started earning a living on a farm (working for wages, without a share of produce) and (b) when he was able to start farming on his own account as a share-farmer or on his own farm. A substantial proportion began on their own account from the outset (i.e., "0" years in Table XXV) in most cases presumably using savings or being assisted by relatives, or starting on an inherited farm.

TABLE XXV.
Duration of Time Between Farmer Earning Living on Farm and Farming on his Own Account.

Number of Years.	Number of Farmers.	Percentage of Farmers.
		Per cent.
0	22	19
1-5	18	16
6-10... ..	39	34
11-15... ..	19	16
Over 15	17	15
Total	115	100

The results did not reveal that the length of time required by the farmer to start farming on his own account varied significantly with the year of his establishment—that is, whether he started farming in the 'twenties, 'thirties, or 'forties. It is notable that if the farmer was not able to farm independently from the outset, then the commonest period required to become established was six to ten years. However, the impression given by this analysis is an over-optimistic one, since it necessarily does not take into account those farm employees who aspired to, but were unable to achieve, the status of farm operators.

Duration of Farming on Own Account.

The number of years spent by each farmer farming on his own account was recorded and this information is summarized in Table XXVI. The table shows that a great proportion of the farmers now on the farms were farming on their account during earlier periods when economic and physical hardships, rather than prosperity, were the common rule. However, an important group—one-quarter of the farmers—started farming on their own account after 1944.

TABLE XXVI.
Duration of Farming on Own Account.

Year of Original Occupancy.	Number of Farmers.	Percentage of Farmers.
		Per cent.
Pre 1915	18	14
1915-1919	6	5
1920-1924	25	19
1925-1929	9	7
1930-1934	14	11
1935-1939	12	9
1940-1944	10	8
1945-1949	26	21
1945	6	5
1946	6	5
1947	5	4
1948	5	4
1949	4	3
1950	3	2
1951	2	2
Not known	3	2
Total	128	100

Age of Farmers.

The age of the farmers was noted because it was desired to analyse the relationships between the age of the farmer and the attitudes and expectations expressed.

TABLE XXVII.
Age Distribution of Farmers in Sample.

Age of Farmer (Years).	Percentage in Each Group.
	Per cent.
Under 35	15
35-49	36
50-60	29
Over 60	20
Total	100

It is notable that 49 per cent. of the farmers interviewed were 50 years old, or older—a reflection of the common observation that the average age of wheatgrowers is increasing as the original settlers remain

on blocks settled earlier this century. Note was also taken of the education received by each farmer interviewed. The results showed that 66 per cent. of the farmers received a primary school education, 30 per cent. went to high school, and 4 per cent. went to an agricultural college or university

3. EXPECTATIONS AND ATTITUDES.

The information presented below is the result of inquiries designed to ascertain the prevailing viewpoint among farmers which may influence their response to the food production drive which is now gaining momentum in Australia.

Expectations.

Commodity Prices and Costs.

Farmers were asked to express their expectations regarding the trend of prices in the future and particularly the level they expected would prevail by the 1953 wheat harvest.

The question asked was: "How do you expect prices of the following to move in the next twelve months—i.e., by the 1953 wheat harvest?"

The answers were classified as expecting prices to "rise", "remain the same", or to "fall". In cases where a clear expectation of a trend was not expressed, the answer was regarded as "remain the same". In Table XXVIII the "majority opinion" for each commodity has been italicized.

TABLE XXVIII.
Farmers' Price Expectations.

Item.	Percentage of Farmers Expecting Price by 1953 Harvest to—			Number of Farmers Answering.
	Rise.	Remain about the Same.	Fall.	
	Per cent.	Per cent.	Per cent.	
Cost Items—				
Fuel... ..	<i>60</i>	26	14	78
Superphosphate	33	<i>57</i>	10	78
Freights	25	<i>57</i>	18	125
Wages	23	<i>50</i>	27	123
Tractors	12	<i>41</i>	<i>47</i>	120
Bags	9	24	<i>67</i>	117
Income Items—				
Wheat	<i>53</i>	37	10	119
Beef... ..	14	<i>52</i>	34	96
Wool	10	<i>62</i>	28	124
Lambs	9	<i>55</i>	36	111

Wool prices were expected to hold at current (October-November, 1952) levels by the majority of farmers. *Wages* and *freights* were generally expected to remain at their present levels. The most notable items for which a *rise* in price was expected were *wheat* prices and *fuel* prices, and to a less extent, *superphosphate*. The expectations regarding wheat were in strong contrast with those for other commodities, and

generally relied on the view that home consumption prices would rise. On the other hand, two-thirds of the farmers expected a *decline* in *bag* prices, and almost half expected *tractor* prices to fall.

The relatively large group expecting *lamb* and *beef* prices to decline is of some concern in view of the importance of meat in the food production programme. It may reflect an expected continuation of the decline in prices which occurred in the period preceding the survey. No attempt was made in this particular inquiry to ascertain the degree of rise or fall expected, if any, which would be necessary to induce the farmer to change the pattern of his operations. Nevertheless, as indicated below, some inquiries were made as to whether the price changes expected would be sufficient to induce a change in farm operations.

Some of the comments recorded by field interviewers indicate the reasons behind the opinions expressed by farmers. The comments should not necessarily be regarded as representative of those noted for each commodity but they do reveal some of the reasons for the attitude of farmers regarding future price trends. They reveal, for the most part, a clear understanding of some of the factors influencing price trends. The comments should be read *in toto* for general impressions, rather than as a means of attaching undue weight to any one opinion. The expected trend stated by each farmer is also shown:—

1. *Superphosphate*—

W7: Could well be subsidized. (Same).

W6: People are thinking before using. Too high. (No answer.)

2. *Wages*—

P2: Won't increase till people work harder. (Same.)

W7: Won't go up, due to bigger supply of labour. (Same.)

3. *Bags*—

K6: Bags will be lower in price; people are going out of wheat growing or adopting bulk handling.

P3: Down, have bought only 1952 requirements because they are going down.

T2: Down—is selling stocks at present high prices.

M1: Depends on what Government does. (Same.)

M3: Bulk handling will reduce demand. (Down.)

P2: Down due to bulk handling.

P5: Bulk handling—glut of bags. (Down.)

P7: Stable, new bulk sheds in town useful.

W6: Second-hand bags have come down—bulk handling, silos on farms. (Down.)

4. *Freight*—

K7: Down—too hot at present.

M1: A ——— disgrace. (Same.)

P2: Railways in deficit. Down—to carry the goods.

H1: Up, because they are up in Victoria.

T5: Can see no relief. (Same.)

W10. Have to be reduced to attract more business. (Down.)

5. *Tractors*—

W6: Will have to come down, otherwise they won't sell them.
(Down.)

W9: Won't come down for twelve months. (Same.)

H1: Australian and Continental makes same, United States.
(Up.)

W1: Are right at peak at present. (Down.)

6. *Fuel*—

P5: Will rise—service is increasing, and this will increase costs.

W3: If goes any higher will defeat purpose—people will use less. (Same.)

7. *Wool*—

P2: Have been expecting it to go down. May not go higher.
(Down.)

P3: Days of fantastic prices have gone. (Down.)

K8: Wool same; differential between price of quality and average wool is small at present which leads to belief market is stable.

J5: Japanese competition might hold price of wool, but as before, slight rise before fall. (Down.)

T5: Fine wools will hold, but crossbred will go down. (Down.)

W1: Might be stabilised around 100 pence. (Same.)

W3: A lot of talk about synthetics—don't think it will oust wool. (Same.)

W6: About the same—90 pence for average 64's.

W10: About present level, perhaps small fall after Christmas.
(Same.)

B2: Stay around fair price for two or three years, then might drop a little bit, say 20 per cent., but not more. (Same.)

B4: Same price for a year or two.

K6: About the same—one thing that will be all right. (Same.)

8. *Fat Lambs*—

M3: Down, due to increased production.

P5: Production lagging behind population. (Up.)

P11: Same; about normal now.

J5: Will hold at export parity—down slightly. (Down.)

V2: Fall a little—about 10 per cent. Depends on contracts and we don't seem to do very well with our contracts.

K6: Fifteen-years contract—will stay approximately the same (or go up by 6 per cent.). (Same.)

P3: Depends upon meat agreements. (Same.)

9. *Beef*—

P2: Have expected them to go up but they have gone down.
(Down.)

P5: Steep rise—terrific shortage of breeding stock. (Up.)

W3: Good market for beef for a long time. (Same.)

W1: Good for years. Possibly higher. (Up.)

10. *Wheat*—

- K6: Home consumption price may go up if you push them enough—overseas price will not. (Same.)
- M5: Big surplus in U.S. (Up.)
- P2: Depends on home consumption price—will have to get a higher price on home market while world prices ease up. (Up.)
- P3: I.W.A. price will be higher, also Home Consumption Price. (Up.)
- P5: Would rise if on open market by 10 per cent., say 2s. a bushel. (Up.)
- V3: Last three years we got about 10s. a bushel. I think it will go to 15s. by next year. (Up.)
- T1: No increase due to big overseas crops. (Same.)
- G4: World price down, home price the same.
- W2: Violent opinions of inequity of present price. (No answer.)
- W3: Will have to be prepared to pay more if they are to get it; price will go up.
- W4: If they want wheat, price must go up; but they will have their cheap loaf. (No answer.)
- W9: Hold as it is—will have to if more is to be grown. (Same.)

Except in the case of wheat there was a noticeable lack of comments regarding the effects of international marketing agreements on price levels; though the influence of government policies on costs and prices was recognized by frequent references throughout the interviews.

Farm Income Trends.

These commodity price expectations were followed by a question designed to find whether farmers expected prices to rise (or fall) more than costs. That is, if yields were to be identical with 1952, and the same quantities of labour and materials were used, would the farm income be higher or lower in 1953, compared with 1952? The question asked was based on the following:—

“On balance, which will rise more: costs of production or prices of goods sold by farmers?”

Table XXIX, which sets out the answers, shows a fairly even spread of the farmers between the three expectations listed. But the largest group expected incomes to decline.

TABLE XXIX.
Farmers' Income Expectations.

Income Expectation.	Farmers Expecting 1953 Incomes to Change Compared with 1952.	
	Number of Farmers.	Percentage of Farmers.
		Per cent.
Income rise	39	31
Income about the same ...	31	25
Income fall	55	44
Total	125	100

Of the fifty-five farmers who expected incomes to fall, sixteen expected wool prices to fall, six expected wheat prices to fall, and five expected both wheat and wool prices to fall. These expectations are in marked contrast to the majority opinion concerning these commodities. Comments recorded by field interviewers as farmers answered this question again reveal some of the reasons for opinions expressed by the farmers:—

- V1: Farmer mainly interested in wool, the price of which he thinks will drop more than costs.
- M1: Income down—tightening up by banks.
- M3: Expects a decline as production increases, just as after World War I.
- M6: Prices of goods sold by farmers will rise more. Increased population in Australia and in the world will increase demand.
- Y3: Better next year because of wet sowing period this year.
- P1: Farmer is no longer concerned with making maximum money income; is more interested in using property in accord with normal programme and setting his sons up well.
- P2: Better off because high prices were not good for anyone because everything went up and farmer did not know where he was. Costs will come down more than prices; could plan better if prices were more stable.
- P3: Slightly better off, the real hard times have passed.
- P4: Prices are high enough; the need now is to keep costs down. Things will get a little better because costs will fall more than prices.
- P5: Things now stabilizing. If anything, will get better.
- Z1: Expects inflation to continue. Farmers' position unchanged.
- T5: No cause for much pessimism. Can't expect further boom. Costs will not fall so rapidly as prices.
- V2: Costs of production up a bit, prices down. Not much in it either way.
- V3: On balance will become worse for farmer. Costs will rise more than prices, but there won't be much difference. Farming will be less profitably mainly because yields will be down.

As revealed by the comment of farmers V3 and Y3, it was not always feasible for the farmer to consider the future without considering his own personal position and trends in his own income. For example, a farmer who is gradually making progress, becoming more independent, and perhaps clearing additional land, may have been influenced by these changes in his own position in answering this question. The answers emphasize the difficulties involved in framing questions which encourage farmers to state the reasons which do in fact motivate them to make changes. While no major change is in progress as a result of price expectations on the farms concerned, the answers to this question should be considered in the light of other information which reveals that many of the farmers contemplate expansion of pasture improvement. While such expansion of pasture improvement is not a direct result of expectations regarding wool and sheep meat prices, in the farmer's expressed view, it may require as a prerequisite certain expectations as to the future level of prices of the products to be grown on the improved pasture.

It should be noted that the effects of family responsibilities or of plans to settle sons on the land, or to develop the property gradually, may all upset this response based purely on relative profitability of alternative farm programmes available to the farmer. Thus some farmers are proceeding with land clearing, pasture improvement or acquisition of land as a means of providing permanent employment for the number of men available in the farm family, or even for young sons not yet old enough to work on the farm. The proportion of land cropped also reflects the pressure to provide opportunities for the whole of the available labour force on some farms. In some cases the level of farm investment may be influenced by a desire to reduce *taxable* income, and this additional investment may encourage some change from one farm enterprise to another.

Attitudes.

Attitudes to Investment.

The farmer's attitude to investment reflects his appraisal of prevailing economic conditions, and his own ability and willingness to take advantage of them. The following question sought to find the farmer's opinion as to whether or not the present time is a favourable time to invest:

"Do you think the prospects are favourable at present to—

- (i) invest capital in farm improvements;
- (ii) borrow for the purpose, assuming the money could be borrowed?"

The answers to the two questions are set out in Table XXX. An answer expressed as "yes—yes" means that the farmer considered the prospects are favourable to invest his own capital and also to invest borrowed capital. If he considered the prospects to be favourable for investing his own capital, but not for borrowing, his answer is recorded as "yes—no." The effects of investment on taxable income by means of the twenty per cent. depreciation allowances, weighed heavily in the estimates of many farmers.

TABLE XXX.

Farmers' Attitudes to Farm Investment.

Prospects Favourable for Investment of—		Number of Farmers.	Percentage of Farmers.
Farmer's Own Capital.	Borrowed Capital.		
Yes	Yes	37	Per cent. 30
Yes	No	41	33
No	No	46	37
Total		124	100

Thirty per cent. of the farmers answering "yes—yes" may be assumed to be favourably disposed toward investment and to borrowing; an important group of thirty-three per cent. of the farmers considered the present opportunities to be favourable, but were not prepared to borrow

to invest. Eight of the forty-one farmers in this group made unsolicited reference to the twenty per cent. tax depreciation allowances as a major factor encouraging them to invest now. The largest proportion, thirty-seven per cent., considered that the present is a bad time to invest, whether it be owned or borrowed capital. Seventeen of these forty-six farmers referred to high costs at present as a deterrent, and this was the only deterrent mentioned by farmers in commenting on their answers. The personal position of each farmer would weigh heavily in his appraisal of the suitability of the present time for investment.

Comments recorded in relation to these items reveal not only attitudes toward investment, but also attitudes toward borrowing:—

1. *Favourably Disposed to Investment—*

- M2: May as well go in now.
- M5: Never wait. Things won't improve that much.
- M6: Farmer says he regards future as promising and good time to invest in good land, but bank has discouraged him from borrowing to buy land at present.
- W7: Would borrow "up to eyeballs" on anything to do with land. If you wait till things are cheap you will always be waiting.
- E2: No time like the present for improvements.
- J7: If Government pays it through income tax concession it is worth while.
- B7: Would invest, because deductible for taxation purposes.
- V5: Yes—because of fairly good prices to farmers and tax concessions.
- E5: Yes—tax reasons. Not a good time to buy land except irrigation land.
- H6: Son would like lots of improvements that father doesn't want. *e.g.*, Employee's house.

2. *Cautious Attitude to Investment—*

- P5: Depends on type of improvement. Would not invest in fencing, but would in a tractor, because of the importance of timing of operations.
- T2: For essential improvements only.
- T5: Would tend to invest from own point of view, but thinks a person contemplating farm purchase would be wise to hold off.
- J5: It would depend on interest rate, not if too high.
- W6: Rather hold off for a while. Would buy adjoining land if available.
- B2: Should invest all the time when materials available, but not all out spending now—costs are too high.
- B4: Yes, but not a good time to buy land; it got a bit too dear.
- Z1: Has always played a waiting game, but there are two sides to question.
- Q3: Yes, but not to over-capitalize. Would be cautious unless real necessity.
- Y6: Depends on type of improvement. Water, subdivision and fodder conservation, yes.

- E1: Must keep improving all the time. Not good time to buy land.
 P4: Idea is to keep on improving property, land values are going down. May be able to borrow at lower interest rate later.
 R1: Would only borrow for short periods. Think good times can't go on for much longer.

3. *Unfavourably Disposed to Investment*—

- M1: No, a bad time. Things now at peak and must fall, but is prepared to invest in good part of farm on fencing.
 M3: Land too dear—costs too high.
 M4: After twelve months costs will go down, so will prices, would not advise heavy borrowing.
 P2: Probably better in a year or two. Would not advise heavy borrowing, likes to be able to spit on the doormat of the bank as he walks in. Going steady on bulk handling till methods standardised.
 P11: Farmer who borrowed now would be in trouble.
 W1: Would rather hold off in anticipation of price fall.
 W2: Outlook not good.
 B3: Not a good time to buy or sell land.
 W4: Not a good time. Price of land and materials too high.
 Y7: Does not believe in borrowing.
 G5: Wouldn't borrow to make improvements at present because costs are falling hence wise to hold off and finance out of savings.
 H1: Wouldn't like to put his head in a noose.
 H4: If money borrowed it has to be paid back and may be hard to do when prices do fall.
 W10: Always possibility of prices coming back.
 H5: Being old, he doesn't want to get into debt.
 E4: Bad time to buy land with borrowed money or with cash.
 V3: Have to invest in improvements just to keep going, but not a good time for additional outlay.
 K7: Things are so dear; would rather hold off.

The effect of these opinions and judgments by farmers would be expected to vary according to the intensity of belief in the stated expectation and the farmer's individual financial position. The analysis does emphasize the broad categories into which farmers may be classified for purposes of analysis of attitudes toward investment. Any national policy or extension recommendation should recognize the importance of these individual attitudes held by farmers.

Attitudes to Borrowing.

Certain impressions regarding farmers' prevailing attitudes toward borrowing were gathered both from factual data obtained and from comments made by farmers and recorded by the interviewers. Results of the survey suggested that in general, although substantial investment in farm improvements is at present being planned, farmers *do not seek credit to carry out such improvements*. They prefer rather to finance investments of this sort from savings. Many seem to consider that bank credit should "normally" be used only for the purchase of

land or of properties as "going-concerns".⁸ The only other purpose for which credit is *regularly* sought, by some farmers, is for the purchase of sheep; short-term loans for this purpose are often obtained from wool-brokers. (Purchases of machinery are frequently financed under hire-purchase agreements. However, no information concerning the use of hire-purchase was obtained from survey farmers.) It was found that thirty-four (27 per cent.) of the survey farmers had approached credit institutions for loans in the twelve months prior to the survey. The purposes for which the loans were desired and the success of the approaches are shown in Table XXXI.

TABLE XXXI.
Farmers Seeking Loans and Purposes of Loans.

Purpose for which Loan Sought.	Number of Farmers Applying for Loans.		
	Successfully.	Unsuccessfully.	Total.
To Pay Provisional Tax	4	2	6
To Purchase Land	4	3	7
To Purchase Sheep	6	...	6
To Improve Property	2	...	2
To Purchase Sheep, a Truck, and for Soil Conservation	1	...	1
To Purchase Car (for Son)	1	...	1
Unstated	9	2	11
Total	27	7	34

In six cases where loans were successfully obtained for unstated purposes, the amounts involved were quite small—less than £500. The fact that most of these loans were sought by farmers who either had earned small incomes in 1952 or were newly-established suggests that they were for general working expenses and essential maintenance rather than for carrying out specific improvements. If they had been for the latter purpose, one would have expected the farmer to have stated this.

The lack of response on the part of farmers to the New South Wales Government's scheme whereby credit, for certain classes of farm improvements, can be obtained at concessional rates⁹, also provides evidence for the contention that farmers have not used credit for farm improvements. Farmers were questioned concerning their knowledge of this scheme, which is administered by the Government Agency Department of the Rural Bank of New South Wales.

Of the 117 farmers from whom this information was obtained, fifty (or 43 per cent.) had not heard of the scheme. Fifty-seven (or 48 per cent.) had heard of the scheme but had no knowledge of the facilities

⁸ This statement is not intended to imply that in practice bank credit is not used for other purposes, but that most farmers consider other uses to be exceptional, and to be avoided if possible.

⁹ For details of this scheme, see P. C. Druce, "Loans for Farm Development" *Agricultural Gazette of New South Wales*, Vol. LXIII Part 12 (December, 1952).

available (or of expenditure eligible for loans) ; nine farmers were quite familiar with the details of the scheme, but only one had actually made use of it. These figures reveal a widespread lack of interest in this form of credit, as the scheme has been widely publicized.

Comments made by the farmers throw considerable light on the reasons for their apathy. The two most frequent reasons given for not using the concessional credit were unwillingness to seek credit elsewhere than at the farmers' "own" bank (usually a trading bank) and unwillingness to borrow for the purpose of farm improvement. The farmers' comments, as recorded by the interviewers reveal their attitudes both to borrowing and to the use of Agency credit¹⁰.

1. *Unwillingness to Borrow.*

- M5: Had no occasion to use this. Has used own money.
- N1: Would be all right if he were short of money.
- E5: Against borrowing if he can do without it. Not sure if scheme is a good idea—it might stimulate over-borrowing.
- T5: Prefers to finance improvements out of profits.
- G3: Well-run farm should not have to borrow for fodder conservation, etc., under prosperous conditions.
- K6: Use credit to purchase land, but if you cannot afford to finance farm improvements out of income, there is something wrong with your method of farming.
- P4: Not in favour of borrowing too much. Would not borrow for buildings or improvements. Would build these only if money is in hand or in sight.
- P2: Have heard about concessional credit, but has financed from own money. All borrowings have to be repaid, anyway. Have had a lot of loans, and now determined to avoid them.
- Y6: Would use them, but wants to avoid borrowing.
- Y7: Not much good, as he doesn't like borrowing money.
- Y2: Not keen on borrowing.
- H5: Doing O.K. without worrying about borrowing.
- P3: Never been in debt since partnership formed in middle of 'thirties.
- C5: Has never borrowed money. Scheme is good.

2. *Loyalty to "own" bank.*

- M1: Not convenient when banking at another bank. Has never needed such assistance.
- P5: Would have to pay off loan to trading bank first. After that would feel obliged to stay with bank that started me off.
- Y4: Doesn't deal at Rural Bank.
- Y5: Vague knowledge, but will stick to his own bank.
- C3: Not in favour of dealing away from private bank.

¹⁰ Additional comments indicative of farmers' attitudes towards the use of credit in general, are listed in the section "Attitudes to Investment", page 46.

K8: Wanted to obtain concessional credit for soil conservation work. Was asked to transfer business to Rural Bank—nothing doing.

M6: Should be wonderful idea. Prefers to do all banking at one place. But would go to Rural Bank if a heavy loan and heavy interest payments were needed to finance one of the eligible improvements. (Note.—This farmer was recently refused a loan by his bank for the purchase of additional land.)

Some additional information concerning farmers' borrowing habits was obtained. When asked to state the source(s) of credit which they normally used in present circumstances, the farmers answered as in Table XXXII.

TABLE XXXII.

Sources of Credit Used by Farmers.

Source of Credit.	Number of Farmers.
Bank	110
Bank for long-term, wool firm for short-term credit, especially stock purchases	9
Department of Lands	1
No answer	8
Total	128

In addition to the farmer listed, four others also borrowed from the Department of Lands, but as they also made use of credit from other institutions, they are included in the table under the other headings. These five men were ex-servicemen settled under the War Service Land Settlement Scheme. Of the 118 farmers who dealt with the banks, eighty-four (or 71 per cent.) were customers of the trading banks, twenty-five (or 21 per cent.) of the Rural Bank of New South Wales, and eight (or 7 per cent.) of the Commonwealth Bank of Australia. One farmer dealt with both the Rural and Commonwealth Banks.

Attitudes to Taxation.

The question of income tax was raised during the survey as a guide to income levels and to determine the attitude of the farmer toward tax and the effect of this attitude on the general problem of increased agricultural production. Some enquiries were also made from the farmers regarding their knowledge of taxation depreciation allowances introduced during 1952.

Knowledge of Special Depreciation Allowances.

The introduction of the new 20 per cent. depreciation allowances for primary producers in 1952 provided new opportunities for farmers to develop their properties and purchase plant with accompanying savings in tax which reduce the net cost of the asset in question to the farmer taxpayer. The new rates applied as from 1st July, 1951.

Some of the items eligible for the increased depreciation rates—for example, buildings and fences—were previously eligible for low rates of depreciation only. Farmers were asked whether they were aware of this change in taxation policy, with the results shown in Table XXXIII. The results apply to the 123 farmers answering this question.

TABLE XXXIII.

Farmers' Knowledge of Taxation Depreciation Allowances.

Item.	Did Know 20 per cent. Rate Applied to this Item.	Did not Know 20 per cent. Rate Applied to this Item.
Percentage of Farmers Answering.		
	Per cent.	Per cent.
Employee's House	66	34
Machinery	61	39
Tractor	61	39
Building	57	43
Windmill	55	45
New Fencing	47	53

Included in the 123 farmers were forty-eight (39 per cent.) who knew that the new depreciation allowances applied to all of the items listed; thirty farmers (24 per cent.) had no knowledge at all of the new depreciation rates. The remaining forty-five farmers (37 per cent.) knew that the rates applied to some only of the items listed.

The high proportion of farmers who had remembered that the new rates applied to employees' houses and accommodation reflects in part the emphasis on these items in the publicity granted to the scheme. The comparative lack of knowledge of the position regarding fencing is worthy of note, especially in view of the plans to invest in fences in 1953. However, this is partly explained by the fact that many farmers find it difficult to distinguish "repairs and mainenance" from capital expenditure on fences; the twenty per cent. depreciation rate applies only to the latter. The knowledge of depreciation allowances for buildings and windmills was somewhat lower than for other items. Depreciation on these items was changed substantially by the 1952 decision regarding the 20 per cent. allowances.

Relationship of Attitudes to Tax and Taxable Income.

The knowledge of farmers regarding the 20 per cent. depreciation allowances might be expected to be related to the taxable income of the farmers concerned. Those farmers with higher incomes would be expected to make every effort to explore possibilities of reducing tax paid by purchases of assets to which the twenty per cent. rate applied. There is some evidence of this, particularly at taxable incomes above £5,000 and in the lower income groups below £2,000. Table XXXIV reveals the results of this analysis.

TABLE XXXIV.
*Relationship between Taxable Income and Knowledge of
Depreciation Allowances.*

Taxable Income.	Number of Farmers who Knew that 20 per cent. Depreciation Rates Applied to Farm Assets.			Total.
	Knew 20 per cent. Applied to All Items.	Knew 20 per cent. Applied to Some Items.	No knowledge of 20 per cent. Allowances.	
Under £2,001	18	25	20	63
£2,001-£3,000	10	9	2	21
£3,001-£5,000	9	6	7	22
Above £5,000	10	2	1	13
Total	47	42	30	119

More than 75 per cent. of the survey farmers with incomes exceeding £5,000 a year knew all the items to which the 20 per cent. taxation depreciation allowances applied as compared with less than 30 per cent. of the farmers with taxable incomes of less than £2,000 per year.

Certain of the farmers expressed the view that reduction of income tax was one of the two methods by which food production could be increased¹¹. For the purpose of the analysis in Table XXXV, the farmers were grouped into those who suggested "cut income tax" and those who did *not* make this suggestion. In Table XXXV the farmers are classified in this way, and also according to their taxable income.

TABLE XXXV.
*Relationship between Farmers' Suggestion to "Cut Income Tax" and
Their Taxable Income.*

Taxable Income.	Number of Farmers Suggesting "Cut Tax."	Number of Farmers not Mentioning Taxation.	Total.
Under £2,001	23	42	65
£2,001-£3,000	10	11	21
£3,001-£5,000	11	14	25
Above £5,000	6	7	13
Total	50	74	124

It is clear from the table that the group of farmers with *taxable* income of less than £2,001 were less concerned than other farmers with the effect of taxation on production. At an income of £2,000 an average tax rate of approximately 4s. 9d. in the pound is payable and £28 more tax is paid if an additional £100 is earned, assuming the average income is £2,000 when the actual income is £2,000. This

¹¹ See page 55 for details of this question. The question was, "How can food production be increased—give two major methods only?"

appears to be the income level below which farmers are less concerned with the effect of taxation on production—as measured by the question relating to food production on a national scale. This definition of £2,000 as the income level at which farmers begin to become concerned with the effect of taxation on their farm operations is thus suggested by two independent analyses in Tables XXXIV and XXXV. The precise effect of this greater consciousness of taxation at incomes above £2,000 remains a problem for further analysis.

Attitudes to Wheat Prices.

A series of question was included, in an effort to determine the reaction of farmers to present wheat prices and the effects of these prices on the attitude of growers toward wheat production. A slight majority of the farmers—sixty-seven of the 120 answering the question—were aware of the fact that the first advance on the 1952-53 wheat crop was to be 12s. per bushel (bulk basis). The remainder, when asked this question, were either unable to quote a figure, or gave a figure which indicated they did not know of the existing price arrangements. The announcement regarding wheat prices was made in March, 1952, in the course of an appeal by the Prime Minister for increased sowing of wheat in the 1952-53 season. Farmers were asked whether they remembered the announcement and whether they responded in any way by increasing the wheat acreage which they had previously planned to sow. Only five of the 124 farmers answering the question indicated that they had increased sowings in response to the publicity early in 1952 pointing out the need for additional wheat production.

Some indication was also sought of the reaction of farmers to the present system of wheat payments to growers. Farmers often mentioned that long delays in payments moved payments into different taxation years, but on balance the long-established grower received a regular series of payments for different crops which tended to even out any such fluctuations in tax payable. Many farmers stated that newly-established farmers needed the money as soon as possible, and delayed payments were an embarrassment to such farmers who were short of cash for operating expenses. Other farmers mentioned the fact that payments in small lumps tended to be “frittered away” whereas a large sum would enable a more substantial lump sum investment to be contemplated.

Some measure of the overall effect of all these factors was provided by answers to a purely hypothetical question, as follows:—

“Would you prefer a high first advance per bushel for wheat even if total pool realisations were less—

say 12s. od. first advance
and 16s. od. total payment } as one alternative;

or

14s. od. first advance
and 15s. 6d. total payment } as the other alternative?”

Of the 121 farmers answering, forty-eight (40 per cent.) stated they would prefer the higher first advance even if this meant a reduction in total payment. The time involved for ultimate total payment in each case was taken to be similar to that now in force—generally upwards of three years. Many farmers, answering the question, referred to the

importance of the individual farmer's position as it affects his response to the question. Those farmers in need of cash, or desirous of seeing the money safe in the bank, tended to prefer the higher first advance.

Effect of a Decline in Returns from Sheep.

When asked, "What change in your farm operations would you make if wool and sheep-meat prices fell by 50 per cent. by December, 1952?" the answers were as shown in Table XXXVI.

TABLE XXXVI.
Responses to a Decline in Wool Prices.

Suggested Change.	Farmers Answering.	
	Number.	Per cent.
No Change	85	68
More Wheat	26	21
More Cattle	5	4
Cut Expenses	4	3
More Sheep	2	2
Other	2	2
	124	100

There are several reasons for the "no change" attitude of 68 per cent. of the farmers when faced with a sudden fall in wool and sheep-meat prices. Some of the reasons revealed by the survey were:

- (a) Many considered that it would be only a temporary slump and in time the market would recover.
- (b) To change to a larger wheat acreage would deplete the soil fertility; it would entail more work or labour; additional plant may have to be purchased; or the costs of materials associated with wheat-growing are too high.
- (c) Some considered that even if the prices did fall by 50 per cent., woolgrowing would still be more profitable than cropping at present cost and price levels for wheat.

Nevertheless, 21 per cent. of the farmers stated they would increase the wheat acreage. One factor dominant in the farmers' minds when considering their response to a sudden fall in prices, is the suitability of the farm to a different farming programme. In the present circumstances, farmers have experienced physical benefits of expanded sheep-raising—less work and less intensive cropping. Discussions with farmers, and the details of their financial position which they revealed, showed that many of the farmers are now in a position to avoid undue depletion of soil fertility by maintaining present numbers of sheep even if wool prices did fall. Whether or not this attitude would persist if the wool-wheat price ratio proved to be less favourable than at present *over a long period of years* was not so clear. Similarly, if farmers' expectations were to change so that they reckoned on a permanent adjustment of the price relationship, their response to the position may be different. Some mentioned that as their land had now been rested they would contemplate a return to wheat if wheat prices became more favourable.

Generally, the survey revealed that farmers recognized the benefits of expanded sheep production, as compared with wheat-growing as usually practised on their farm land, and several mentioned that they would expect an increase in yields should they return to wheat. For the present, they were content to remain in sheep, as there was no reason evident why they should change. It was clear, however, that farmers recognized an ultimate competition for farm resources between the sheep and wheat enterprises which is influenced by the time period during which one or other enterprise has been dominant. The farmers who have not maintained their wheat plant, have dismissed labour, or have no longer any sharefarmers growing wheat are the ones who will require substantial incentives if they are to be induced to increase wheat production. They have little reason to change while present conditions persist.

Attitudes to Increased Production.

An effort was made to find from each farmer his opinions as to the methods by which food production on a national scale could be increased. To prevent too many all-inclusive answers being given, the farmers were asked to name *two most important* means by which food production could be increased. Some farmers could not provide any answer, and in some cases only one was given. No answers were suggested to the farmers, unless in a minority of cases under extreme pressure, the interviewer may have suggested several alternatives. The results are summarized in Table XXXVII.

TABLE XXXVII.
Methods of Increasing Food Production.

Suggested Method.	Farmers Suggesting Method Listed as a Means of Increasing Food Production.	
	Number.	Percentage of 118 Farmers Answering who mentioned this Method.
		Per cent.
Reduce Income Tax	53	45
Improve Wheat Price	35	30
Reduce Freight	25	21
Reduce Costs	24	20
Closer Settlement	13	11
Secondary Industries to Produce for Agriculture	5	4
Decentralization	4	3
Improve Credit	3	3
Soil Conservation	2	2
Harder Work	2	2
Better Labour	2	2
Other	20	17

Forty-five per cent. of the farmers indicated that a reduction in income tax would result in increased production. However, some of these farmers admitted that the present rate of taxation had not influenced production on their own farms. As indicated previously, farmers with

taxable incomes below £2,000 tended not to give the answer "cut income tax" as a means of increasing farm production. Thirty per cent. of the farmers suggested that a rise in the price of wheat would result in increased production; and 41 per cent. suggested that freights and production costs should be reduced. The emphasis on the importance of reducing costs—a measure which many farmers considered to be beyond their control—was notable in many of the answers. Although the question covered various forms of food production throughout Australia, these answers mainly apply to wheat and sheep farms and relate particularly to the production of wheat.

The lack of emphasis on improved credit facilities reflects the fact that the farmers interviewed were for the most part established on farms and not concerned with securing credit to begin business on their own. Some bias may have entered these answers because farmers were aware that their answers might well be used as a guide for agricultural and financial policy. Consequently, their answers might reflect their estimate of whatever action would in fact be in their own individual best interest.

Attitudes to "Reasonable Income."

An effort was made to explore and record the farmers' reaction to the idea that beyond a certain income farmers are not concerned with achieving increased production and are content with the income being received. The results necessarily relied on what the farmers said their reaction would be. Actual observation of responses would be needed to solve the problem. The question asked was designed partly to secure the estimate of the maximum income sought by the farmer; but more important, it provided a means of encouraging farmers to comment on the reality of the concept. The question was: "What is your idea of a reasonable, assured, income per year for you (*i.e.*, taxable income) such that you would not be inclined to work harder once you achieved it?" The farmers answering this question left no doubt as to their desire to increase their earnings above their present level. Table XXXVIII reveals that 43 per cent. of the ninety-four farmers answering, indicated a fixed income, generally far above their current level of earnings. The remainder had but a vague idea of such an income or else did not think of their activities in this way. Some thought the question "unrealistic"—the question having been framed in part deliberately to count the farmers answering in this way.

TABLE XXXVIII.

Farmers' Answers to "Reasonable Income" Question.

Type of Answer.	Number of Farmers.	Per Cent. of Farmers Answering.
		Per cent.
Farmer has no idea—doesn't think in these terms ...	25	27
Never satisfied—will always strive for more ...	24	25
Property has its potential—that is the limit ...	5	5
Stated fixed maximum income ...	40	43
No answer ...	34	...
Total ...	128	100

When the farmers stating fixed incomes as their "reasonable" income, were examined it was found that, on the average, the "reasonable" income was £3,346, whereas the average income which they actually achieved in 1951-52 was £2,612. Comments on the question by farmers who had no concept of a fixed income toward which they strive were particularly revealing:

1. *No Limit to Income Desired—*

- Y8: No limit.
- H1: Young farmer—wants to make a lot of money.
- M1: No. Out to get all I can.
- B1: Never be inclined to accept a given income and not work harder if I could see some return.
- Y7: Out to get full amount possible.
- Y3: Flat out to earn enough to buy a property.
- K8: Would set out to make as much as possible.
- C2: Chase it because of three growing sons.
- Y5: Has been farming all he could to finance sons.
- W1: Out for all he can get—has children.
- W3: Make as much as possible. Has children to be set up.
- C8: Out to get as much as possible irrespective of tax.
- C10: Never satisfied.
- T1: Out to get all he can, except that taxation discourages extra effort.
- B5: No upper limit.
- C3: Will never reach it.
- N3: Never sufficient.
- K4: Make as much as possible.
- B2: No income limit.
- M5: No such income in mind. Need to provide for children.

2. *Emphasis on Potential of the Property—*

- M6: No, don't think in this way, property has its potential.
- T2: Has concentrated on improving place to full capacity.
- W10: Thinks that everyone should use their land to maximum productivity in interests of nation.
- P5: £1,800—Would like to develop a permanent well-managed farm.

3. *Farmer Doesn't Think in These Terms.*

- E3: Wouldn't know.
- H6: Used to work; don't like doing nothing.
- H5: Never considered this.
- T5: Does not think in these terms.
- P2: No. Have seen it tried—it does not work, *e.g.*, drought cuts it down and good years increase it.
- N1: No idea without working it all out.
- E4: Amount of income makes no difference to amount of work we do.
- V5: Don't think it makes any difference from farmers' point of view—always do the same whatever the income.
- N6: No fixed ideas.
- H3: Couldn't reach it.
- P3: Everyone is ambitious, would try to maximize the high income because next season may be bad.

K2: Has not thought along these lines.

B3: Can't answer that.

X2: No idea.

B7: Would never stop work because that is my interest in life.

The answers reveal the idea of relaxation of effort on reaching a certain income to be quite an unrealistic interpretation of the majority of the farmers' position, more especially in the case of the younger farmer still establishing himself, and with family responsibilities existing in the present or likely to develop in the future. This conclusion might appear to be in direct contradiction to the fact that in recent years the great majority of farmers have concentrated on the relatively easy task of wool production at the expense of wheat growing, and consequently have not worked their properties anywhere near the *physical* capacity of themselves or their land.

The confusion leading to this apparent contradiction arises partly from the fact that wool prices have been such that by working less, farmers could earn more. This does not prove that they would not work harder to earn more, if the opportunity existed. For the older farmers, the position is dominated by the high incomes obtainable from wool production, the shortage of labour in the immediate past, and the desire of farmers to rest their land from cropping. The interpretation that farmers are farming their land at less than full capacity because they do not strive to maximize their income is not borne out by results of the survey—this interpretation ignores the agronomic benefits in the long run of resting the land, the high comparative income obtainable from wool production, and the additional risks and expenditure of cropping as compared with sheep production.

4. CASE STUDIES OF SELECTED FARMERS.

The foregoing analysis presents a cross section of the attitudes of wheat-sheep farmers included in the sample. The method followed has been to extract from the group of answers provided by each farmer all of the opinions and information relating to each subject such as fences, price expectations, or attitudes toward increased production. This has provided a convenient summary of information available on each subject, but it ignores the unity which exists within the group of answers provided by any one farmer.

In order to approach more nearly the ideal of complete description and interpretation of individual cases, the situation on a number of farms and their operators' attitudes and expectations have been described in detail. Each of the farmers chosen for inclusion in this section is, in some respects, representative of many other farmers: each case sharply illustrates some of the more important problems confronting a certain class of farmer or aptly describes the opinions and attitudes common to a class.

The first three studies illustrate the progression, which is not infrequently followed by young men without significant capital resources, from labourer, through share, and possibly tenant-farming, to farm ownership.

Particular thanks are recorded to the farmers concerned for their permission to publish these reports.

Case I.—A Sharefarmer¹².

This farmer rents a house and a small area of land from his father. He owns a few sheep, cattle and pigs. He used to run poultry on a commercial scale, but now earns the bulk of his income from share-farming on outside properties. He takes advantage of the slack period during the growth of the wheat crop to go shearing for approximately four months each year. Until 1946, when he commenced sharefarming, he was employed as a labourer. He is in his early thirties, is married, and has several young children.

The farmer owns all the essential items of a farming plant except a twin-disc plough, which he borrows from his father. He hopes to purchase a plough this year. Most of the plant was purchased second-hand, but is in good condition. He also owns a utility truck and a new car.

The area of wheat that he sows each year depends on the willingness of local landowners to enter into sharefarming agreements with him. He has had some difficulty in securing the use of land. The reluctance of local landowners to engage sharefarmers is reflected in the fact that, whereas in most districts where superphosphate is not used the share-farmer receives two-thirds of the crop, in this district he usually receives a half-share only. But in most years he has managed to sow between 200 and 300 acres; in 1952 he cropped 350 acres. His farming plans for 1953 are necessarily indefinite but he hopes to crop approximately the same area.

The farmer has not borrowed money at any stage, having financed his purchases of plant and machinery from savings. His net taxable income for each of the last three years has been slightly over £1,000. He thinks that in the near future wool prices will fall, meat prices will remain steady and the price of wheat will rise a little. Farmers, in his opinion, will be slightly worse off. Nevertheless, he thinks the present is a good time to invest money in plant and improvements and he indicated his willingness to borrow money to make such investments. He declared that if confronted with a situation in which he could "play safe" and make a steady income, or take the chance of making a considerably larger, or smaller, income, he would "take the chance". His stated willingness to take risks is consistent with the fact that he does not insure his crop against fire or hail damage.

In his plans for the future he gives first priority to acquiring a farm of his own. If this is not possible—and his prospects are not good as he is not an ex-serviceman nor can he count on much financial assistance from his father—he considers that his next most pressing need is for a bigger farming plant. His answer to the question, "how can the government encourage food production?" was "open up the land for closer settlement".

In his actions and attitudes, notably his willingness to work hard, take risks, and save a high proportion of his income, the farmer is typical of many other young, unestablished and newly-established farmers.

¹² These notes have been perused by the farmer concerned and his permission to publish them has been obtained.

Case II.—A Newly-established Farmer¹³.

The farmer is in his mid-thirties and is the son of a farmer. At the age of sixteen he went out to work as a shearer, rabbitier and in similar jobs. In the early 'forties he acquired a small block of land and an old farming plant. Since only a small portion of his land could be farmed, he was obliged to sharefarm on outside properties to supplement his income. In the immediate post-war years he sowed, on the average, 150 acres of wheat each year. He purchased an additional 1,000 acres of land two years ago. He is now operating a farm of 1,400 acres of rather poor country, of which only a little over 300 acres are cleared for cultivation; an additional 200 acres of arable land could be won by clearing, but the remainder, being hilly and stony, is unsuitable for cultivation. Scrub has been killed on the better grazing land but the poorer land is quite uncleared. The house and a small area of land are leased from a private owner. The only other buildings on the farm are two old machinery sheds and two old, uninhabited houses. The fences are for the most part over fifty years old and can be described as "merino sheep-proof" only.

The operator considers that his three most important tasks are fencing, rabbit-control, and clearing, in that order. In 1952 he spent £100 on fencing material, and paid £300 in wages to a man employed rabbiting, fencing and clearing. A dam costing £100 was sunk and a windmill worth £130 erected. In 1953 he plans to instal a sheep-dip, excavate another small dam, erect more fences—he estimates that another 5 miles of fencing are required—and continue with rabbit destruction and clearing work. The amount spent on these improvements will depend on income received.

The farmer's plant consists of a second-hand, medium-sized tractor, a header, combine, plough (with seed-box attached) and a new utility truck. Since taking delivery of the "Sunderseeder" two years ago he has sown over 100 acres of grazing oats each year. Between 100 and 200 acres of wheat have been sown annually, and he anticipates sowing approximately the same areas of wheat and oats in 1953. Some newly-cleared land will be brought into production, and some black oats-infested paddocks spelled.

The farmer has been gradually increasing the size of his Merino flock by breeding, and will continue to do so. In 1952 some 350 breeding ewes were carried; wethers and young sheep brought the total to over 600. He has not yet been able to afford to improve the quality of his flock, and considers that the provision of oats for grazing offers the best means of improving the feeding of his sheep.

The operator's gross and net taxable incomes in 1949-50 were £2,200 and £1,100 respectively; in 1950-51, £3,700 and £2,600; and in 1951-52, £2,200 and £350. The large gap between gross and net income in 1951-52 was due mainly to increased expenditure on development works—rabbit control, water conservation and wire netting—the total costs of which are deductible items for the purpose of assessing taxable income. An overdraft limit of £1,600 was secured last year, and £1,100 has been borrowed. The unexpectedly high income achieved in 1950-51 due to high wool prices, not only enabled the farmer to finance a considerable

¹³ These notes have been perused by the farmer concerned and his permission to publish them has been obtained.

amount of development expenditure and the purchase of a new motor vehicle, but also apparently emboldened him to borrow money for these and similar purposes. His explanation of his preference for a higher first advance for wheat, even if total pool payments were less, tends to confirm this. He said that handling a lump sum of money gives one the confidence to invest it intelligently in the farm, whereas one tends to be over-cautious and save a higher proportion of small payments, setting them aside against various contingencies. His attitude to credit was that the present was a good time to invest money in farm improvements, and he was willing to borrow for the purpose. But he would not like to borrow more than he could reasonably expect to repay in three years at current prices. He had few firm expectations as to the future course of prices, except that he thought wool prices were likely to remain stable at current levels. He said there was little he could do to modify the impact on his income of a fifty per cent. fall in wool prices—except perhaps to sharefarm on neighbouring properties—as he is growing as much wheat as possible on his farm at present.

He indicated that he was generally prepared to take risks in his business operations; for example, he said that if he had to choose between a reasonably assured income of £2,000 and the chance of making £3,000 or only £1,000, he would take the chance. He insures his wheat crop against fire and hail damage. He was unable to answer the question, "What is your idea of a reasonably assured income per year for such that you would not be inclined to work harder once you achieved it?", as he had never thought along these lines. He considered that the best way for the governments to encourage food production would be to offer a higher price for wheat and reduce taxation somewhat.

The study of this farmer provides a fitting sequel to the study of a sharefarmer presented above in that this is a case of an ex-sharefarmer whose initial aspirations (i.e., to have his own farm) have been realized. The comparison is enhanced by the fact that he has reached his present position with a minimum of parental assistance. He has had to be content to start with a rather poor and undeveloped property. Consequently the problems with which he is faced are not typical of the problems confronting those farmers who have recently taken over more highly-developed properties. Nevertheless his aspirations and attitudes seem to be largely typical of many newly-established farmers; he is willing to take risks, but only after careful deliberation; to borrow money, but "no more than he can hope to repay within three years at current prices"; he expresses guarded optimism concerning the future—he thinks wool prices will hold. These attitudes may be summed up as willingness to take risks tempered by the responsibilities of ownership and of family.

Case III.—A Well-established Farmer¹⁴.

This farmer operates a farm in northern New South Wales of approximately 650 acres, of which about two-thirds are cleared. The remainder is grazing land which could be cleared further; the value of additional clearing would be enhanced if it were combined with more effective control of rabbits. The farmer is conscious of the soil erosion

¹⁴These notes have been perused by the farmer concerned and his permission to publish them has been obtained.

danger in his locality, and has conducted some conservation work in co-operation with soil conservation authorities. Money is set aside each year for this purpose.

Farm History.

The farmer was born on the farm he now operates over fifty years ago. He originally sharefarmed with his father and later with his brother, having left school in 1910, at the end of the primary grade. He was in partnership with his brother until he bought his brother's interest in the farm in the late 'twenties. Since then the farm size has been gradually increased from its original area of less than 200 acres to its present size of approximately 650 acres, the major purchases being made late in the 1930's. The present farm was finally paid off in 1949, and the farmer now has no debts. Recently the farmer entered into partnership with his wife, and the farm is now operated by this partnership. He has three young children as dependants; each is receiving a high school education, and as yet no specific plans have been adopted for the establishment of his son on this or any other farm.

In pre-war times, the wheat area was generally about 250 acres, but in recent years it has been approximately 200 acres, together with small areas of grazing oats. Lucerne is now being used to control erosion, and paddocks are being left out of wheat to rest the soil from cereal cropping. The merino sheep carried have been gradually increased since 1950, with the farmer now aiming to maintain some 450 sheep, including 250 breeding ewes, the remainder being young ewes and wethers. A definite effort to increase sheep production has been made by increasing the acreage of oats. No pasture improvement has yet been introduced, but the farmer intends to do so in the near future. No hand feeding of sheep is practised. If more feed were available the farmer would aim to run additional sheep rather than improve the feeding of his present flock.

Plant and Structural Improvements.

The present farm dwelling was built in 1930, with some major extensions in 1950. There is also on the property a small forty-year-old house which provides accommodation for seasonal labour. The farm buildings consist of two machinery sheds, built in 1932 and 1952, wooden framed and built of galvanised iron. The wood and iron shearing shed, built in 1945, will require additions to cope with the increased sheep being carried. A grain shed, two hay sheds and three windmills and bores complete the structural improvements, except for fences. The eight miles of fences on the farm are in various states of repair; approximately two miles are about fifty years old, while the remainder vary in age, one mile of netted fencing having been constructed in 1952. Some subdivision fences are in bad repair and continued major reconstruction of fences is planned. The farmer owns an old truck, a 1950 model car, and a 1949 model tractor. Machinery on order includes a twin-disc plough, to replace a thirteen-year-old plough and a combine—the present machine being twenty-five years old. The remainder of the machinery is quite adequate; the header is seven years old.

Financial Progress.

The farmer's equity in property, plant and stock would be of the order of £17,500, and his off-farm assets comprise £1,000 in fixed deposit, and £1,000 in current account at the bank. The last two items are

regarded as savings by the farmer, and will not be used for farm operations unless an extreme emergency arises. Investments in the farm are to be financed from the farm earnings each year. At the time of the interview, the partnership current account showed a balance of approximately £1,000. The 1950-51 wool boom was regarded as quite exceptional by this farmer. He budgeted at the time for the lower prices which have since prevailed. The taxable income from the farm has fluctuated from £1,250 to £2,500 to £1,750 in the three years ended 1951-52. The major items of expenditure on capital goods in recent years have been a new refrigerator (replacement for an older model), a new car in 1950, a hot water service, fencing and a new cultivator.

The farmer, being free of debt, has not tried to borrow money in the last twelve months and could in fact use credit balances held to finance further investment without borrowing. He has overdraft rights for over £2,250, and is quite satisfied with the service provided by his branch of the Rural Bank. The bank assisted the farmer in earlier years and a sense of loyalty to the bank now exists in the farmer's mind.

Attitudes.

The attitudes of this farmer reveal his background as a farmer who has achieved financial security after many years of farming. He is acutely aware of the necessity to adopt soil conservation measures and to take advantages of improved farming techniques. Soil conservation work and pasture improvement are recognized as part of a long-term plan to be followed on the farm. He considers that the major scope for earning increased income on his farm is by soil conservation and perhaps by more intensive fallowing and cultivation of land left out of crop.

These plans are in accord with the farmer's expectation that, within the next twelve months, on balance, prices received will rise more than costs so that net farm incomes will rise. The farmer considers the present a favourable time to invest in farm improvements, and even to borrow for this purpose. He considers that any prospects of improved investment opportunities are not sufficient to justify postponement of any needed improvements. Rises in the price of wheat and fat lambs are expected, with a decline in wool prices. Wages, freights and tractor prices are not expected to move substantially. If the price of wool recedes, sheep numbers would be reduced, and some additional summer grains—maize or grain sorghum—would be grown. Wheat cropping could not be increased substantially owing to prevalence of weeds.

When asked questions regarding the first advance payable on the 1952-53 crop the farmer was not aware that a first advance of 12s. od. was to be paid. He considered that the announcement in March, 1952, regarding the suspension of the wheat tax and the need for additional wheat was too late to affect plantings, because land was already prepared for sowing.

The farmer's attitude toward risks indicated a faith in his own judgment to run calculated risks. He regarded himself as one who would run risks, though not if the assured risk free income were high. The crops, house, farm buildings and car were all insured, but fences, livestock and farm machinery were not.

The farmer was not aware of the details of the items eligible for the twenty per cent. taxation depreciation allowances, and was content to leave such problems to his taxation agent. He considered that reduced taxation would be one of the two most effective means of increasing food production. The other method would be to reduce freight—a common attitude in northern New South Wales where freight on wheat approximates 2s. od. per bushel.

These characteristics—freedom from debt, access to capital, but unwillingness to borrow—are representative of a group of older well-established farmers, operating farms without any permanently employed labour. Apart from his desire to earn as large an income as possible, this farmer is chiefly motivated by the desire to adopt sound agricultural practices and to conserve the soil on the farm. This latter attitude is no doubt influenced by the need to plan for the future of his young family.

Case IV.—A Family Partnership¹⁵.

This 800-acre property is managed by three brothers who are in partnership with their widowed mother. The mother is the owner of the farm, having inherited it from her husband. The farm was made freehold in 1930. As the business now has to support four adults it was found necessary in 1950 to lease a further 2,700 acres which may be purchased in 1953. The home farm has 400 acres of cultivation land, with possibly another 100 acres if it were cleared. On the leased land about 500 acres are cultivated.

The eldest of the three brothers first started farming in 1941 and as a partner of the home farm in 1943. A fourth brother is still at school and it is not anticipated that he will become a farmer. Only one of the brothers, whose ages range from eighteen to twenty-six years, is married. Three attended an agricultural high school.

Farm Buildings and Plant.

The partners have firm intentions of renovating the thirty-five-year-old house, but at the moment all available cash is being saved to buy the leased land. The two machinery sheds, which are over thirty years old, are to be replaced when money is available. Although the home farm has no shearing shed, facilities for shearing and shearers' accommodation are available on the leased property. The twelve miles of fencing was damaged by recent floods but it is expected to repair only two miles in 1953. A new utility provides transport for all partners. A five-year-old tractor is used with the necessary plant for the small acreage of wheat grown on the home farm. A combine and a second-hand header are the only implements purchased during recent years. The replacement of the older machinery will have to wait until the money is raised for the additional land. The partners thought that the twenty per cent. taxation depreciation allowance applied to the employee's house, fences and farm buildings only.

¹⁵ The notes have been perused by the farmers concerned and their permission to publish them has been obtained.

The Need for More Land.

Originally, about 250 acres of wheat were grown on the home farm. This was reduced to seventy acres when the additional area was leased, but a further 300 acres were cropped on the leased land. In 1953 it is expected that the total wheat acreage will be increased to 700 acres. It has been common practice to sow about 40 acres of oats for fattening wether lambs. Although there are three working partners the present plant is inadequate for the additional area, so that a sharefarmer is engaged to crop the leased land on the halves. The owners supply all the seed and fertilizer and provide half the harvesting labour. Seed is usually obtained from an experiment farm and re-sown for a few years. Superphosphate is used at the rate of half a bag per acre. The partnership was aware of the 12s. od. first advance for the 1952 wheat crop but did not prepare any additional land in response to the announcement in March. Actually wet weather at the time of sowing reduced the acreage intended to be sown in 1952. The partners do not anticipate that there will be a drought in 1953 but if this appears more likely at the time of sowing they may reduce the acreage. Plans are being made to implement a three-course rotation of wheat, oats and grazing fallow.

Livestock.

On the home farm about 750 head of Corriedale ewes were carried but with the additional land the flock is being built up to reach 2,500 in 1953. The wether lambs have been sold off as fats and the ewes retained for breeding purposes. There has been no change in the breed of sheep carried but the quality of the flock has been built up by classing and culling. The number of beef cattle has increased from twenty to forty head. The overall number of stock is considered to be well within the capacity of the farm and cropping programme. No major changes are to be made in the farm operations but the partners think that more subdivision would increase production. Experiments are to be conducted in 1953 with the topdressing of native pastures with superphosphate to increase the carrying capacity. The farmers consider that the rainfall distribution in the district is not suitable for subterranean clover.

Attitudes and Expectations.

The partners expect that, with the exception of bags which will fall in price and fuel which will rise, cost items will remain about the same over the next twelve months. Wool, sheep-meats and wheat are expected to remain about the same, and beef prices are expected to fall. Generally, they consider that farmers will be better off next year and that prospects are such as to justify an increase in the wheat acreage next year—though this is also necessary to make full use of the additional land. However, if the price of wool and sheep-meats fell suddenly they would not change their intended programme. In answer to the hypothetical question concerning wheat payments, these farmers favoured the 16s. od. total payment rather than the extra 2s. od. in the first advance and a total payment of 15s. 6d. per bushel.

Generally these three young partners avoid risk and favour sure incomes. They insure crops, farm buildings, the house, and the new truck. They were not aware of the concessional credit facilities available from the Government Agency Department of the Rural Bank. They had never conducted business with this Bank. They suggested that two

methods of increasing food production in Australia would be to make finance readily available for new settlers and to keep farmers better informed on policy matters.

The value of the home farm was estimated to be about £9,000, the stock £4,000 and the plant £2,000. They had no financial incumbrances or off-the-farm investments. The partners consider that they can now borrow more than £4,000. The net taxable income over the last two years has averaged about £4,500. This farm did not gain appreciably during the high wool sales in 1950-51 as the wool was auctioned at an early sale.

A feature of the farm is the comparative youth of the three working partners who are delaying the purchase of plant or repairs and the building of farm structures until sufficient cash can be raised to extend the area of the farm sufficiently to provide for three families. A gradual expansion of operations is necessary to enable all members of the partnership to secure a living consistent with their aspirations.

Case V.—A Farmer on Overcropped Land¹⁶.

This is a farm of 2,800 acres situated on the fringe of the wheat belt 1,000 acres are cleared and 700 acres are cultivated. It would only be possible to cultivate 500 acres of the remainder as the soil is not good enough for cropping. The farmer states that he has cropped the land so continuously that the soil fertility has been "flogged" and his salvation now rests in the establishment of lucerne on the better areas of his farm and subterranean clover wherever possible.

He first commenced farming in 1925 but moved on to this property two years later. The acreage has not changed during the period of occupancy. The education of the children, at a boarding school, costs about £600 per year. To provide this standard of education the farmer (who is now forty years of age) and his wife have made many sacrifices, and the farm has necessarily suffered in improvements.

The Farm.

Prior to the war about 300 acres of wheat were sown annually, but this year the tractor broke down at sowing time and only 180 acres were sown. With the land prepared but not used in 1952 and newly cleared land, the farmer expects to sow 360 acres to wheat in 1953. Part of this will be sown as a cover crop for pasture. During 1952 an area of fifteen acres sown to lucerne proved so successful that it is intended to plant another 100 acres in 1953. It is hoped that this will build up the soil fertility over the next six or seven years to such an extent that it will be profitable to grow several crops of wheat before resowing to pasture. This programme seems a most reasonable one considering the present soil fertility level.

Prior to 1950 the farm carried about 1,000 head of crossbred sheep and fifty head of cattle but next year the cattle numbers are expected to be 150, with 525 sheep. The farmer expects the value of beef cattle, sheep and wool to remain the same next year but he expects a rise in the price of wheat. However, because of the condition of the soil he

¹⁶ The notes have been perused by the farmer concerned and his permission to publish them has been obtained.

cannot take advantage of it. The farmer estimates that he has formed about thirty miles of contour drains to control the water run-off on the undulating areas of the property. The comfortable house was built about thirty years ago and the iron shearing shed and garage are in good condition. As no permanent labour is employed there is no employee accommodation on the farm. The fences are in fair order but the farmer expects to spend about £100 on repairs next year.

An old truck provides transport on the farm and a car bought two years ago is for business and private use. One tractor is fifteen years old and the other four years. The plant is old and requires about £250 in maintenance costs annually. The farmer leases his property from the Crown; his equity in the stock and plant would be about £5,000 but his debts would amount to about £2,500. The farmer considers that he has not improved his financial position over the last three years because his taxable income fell from over £2,000 in 1948-49 to less than £800 last year due to declining wheat yields. The farmer has been anything but rash in his spending over the last three years as the only item of value he has purchased is a new car to replace a much older one.

Expectations and Attitudes.

The farmer expects the price of goods sold will rise or stay the same, whereas he thinks that the only cost items likely to stay the same or rise are superphosphate and fuel. As a result of this the farmer considers that prospects are favourable enough to borrow to invest in farm improvements. Unfortunately, he is not able to borrow except on his life insurance policy. He has no intention of departing from his soil fertility building programme but if the price of wool dropped appreciably he would reduce sheep numbers and increase the beef herd. The farmer considers that he can best increase his income by further pasture improvement and by clearing more land.

This farmer is short of cash but he would take the lower first advance on his wheat crop to obtain the higher overall price. He was not aware of the 12s. od. first advance announced in March, 1952, and therefore it did not influence his sowing plans. The expectation of droughts does not influence the acreage sown as he is prepared to take the risk once the land is prepared. He does not insure either his crops, livestock or fences. Although the farmer was aware of the taxation depreciation allowances, he considers he is not in a financial position to take advantage of them. He also knew of the concessional credit facilities available from the Government Agency Department of the Rural Bank and considered the scheme a good one, but, here again he has not been in a position to make use of it. Although taxation was not of great consequence to him, he considers that the best way of increasing food production in Australia is by reducing income tax. To increase wheat production he suggested increasing the price of wheat.

This farmer is typical of many in his district in that he is very conscious of his declining soil fertility, while he has recently become aware of the value of improved pasture. While the price of stock and wool remains firm this is considered to be an ideal time to rest his wheat land so that in a few years' time he will be in a position to increase his crop acreage if wheat-growing becomes more profitable relatively to grazing.

5. APPENDIX.

Sampling Procedure.

The survey was designed to obtain from a number of farm operators residing in the wheat-growing districts of New South Wales a variety of information concerning both their farm operations and their attitudes and expectations. At the outset this involved several questions of definition—for example, of a *wheat growing district*, a *farm*, and a *farmer*—which had to be settled before appropriate sampling techniques could be devised. Or rather, since the feasibility of the various possible sampling methods must influence the choice of definitions used, the related questions of definition and sampling method had to be solved in a mutually consistent fashion.

The Area Sampled.

The first problem was to define the “wheat-growing districts.” The criterion adopted was “those shires in which more than 25,000 acres of wheat were sown for grain production in 1948-49.” There are forty-two such shires, and if they are mapped they are found to cover an area which corresponds fairly closely to the wheat belt geographically defined. In order to reduce the “scatter” of the sample and thereby reduce travelling, it was decided to restrict the survey to one riding of each of eighteen of these shires. Both shires and ridings were selected at random.

Sampling Method.

Since the survey sought information concerning both farms and farm operators, a choice had to be made between sampling from a population of farms or a population of farm operators. One obvious and convenient method of sampling farms, viz., area sampling of “clusters” of a number of contiguous holdings, was rejected on account of the high risk of contact between interviewed and yet-to-be-interviewed farmers, in which the former might communicate to the latter their knowledge of the survey. Experience during the field work suggested that this source of bias would not have been as important as was thought in the earlier stages.

It proved to be convenient to draw a sample of farm operators because—

- (i) shire electoral rolls, in which persons' occupations are listed, provide a reasonably accurate and up-to-date list of the population;
- (ii) the rolls are made out by ridings, and
- (iii) sampling by systematic¹⁷ or random selection from the rolls has the advantage of simplicity and freedom from interviewer-bias since the sample is predetermined before field-work commences.

¹⁷ Systematic sampling from lists consists of selecting every n th name for inclusion in the sample. Providing the list is randomly arranged, the sample so obtained is a random one. For the purposes of the survey, the alphabetical arrangement of the electoral rolls is equivalent to a random arrangement, so that a systematic sample drawn from the rolls is equivalent to a random sample.

No attempt was made to restrict the population to "wheat farmers" (*e.g.*, by consulting the Wheat Electoral Roll in conjunction with the shire rolls). The sample was restricted to wheat shires, in which the majority of farmers are wheat growers or potential wheat growers". However, it was decided that field interviewers should not visit dairy farmers or horticulturalists (orchardists or market gardeners) and should not proceed with interviews where the respondent operated a farm of less than 300 acres. Graziers were to be interviewed, if possible, as they are usually potential wheat growers. In practice some graziers who had never engaged in wheat growing were excluded from the final sample.

In each interview the respondent farmer's own financial position, attitudes and expectations were recorded, while agronomic data relating to the farm with which the farmer interviewed was associated, were also recorded. The sample of farm operators was thus treated, to a large extent, as a means of selecting a sample of farms. Furthermore, when a selected person was found to be a junior partner in a farm business, the senior partner (frequently his father) was sometimes interviewed. The method of sampling thus tended to increase the numbers of farms under multiple management which were included in the sample, since a farm's chances of inclusion in the sample were in proportion to the number of operators employed on it. For example, two- or three-man farms would have two or three times the chance of inclusion as would one-man farms, providing each member of the two or three-man farm listed his occupation in the electoral roll as a farmer, grazier or other classification eligible for inclusion in the population.

A fairly high degree of non-response was anticipated since the sample included a number of persons ineligible for interview. To make provision against this contingency, two "replacement" samples were drawn in addition to, and approximately the same size as, the "original" sample. All three samples were obtained by systematic selection from the rolls. The order in which replacements were to be substituted in the original sample was determined by random numbers. Further provision against non-response on the part of selected farmers was made in the rule that where a person was discovered to be ineligible or unwilling to be interviewed *after* a visit to the farm, the nearest neighbouring farm could be chosen as a replacement. This procedure was designed to reduce travelling time, but in most cases the eligibility could be determined from public records in the shire offices or from inquiries in the nearest town.

The sampling procedure may be summarized as follows:—

- (i) A "population" of forty-two wheat-growing shires was defined.
- (ii) A sample of eighteen of these was selected at random.
- (iii) One riding in each shire was selected at random.

¹⁸ This policy was adopted with an eye to the future. Surveys, similar in nature to the present survey, may be carried out in other rural industries. If it is wished to aggregate the results of the different surveys they must be derived from a "total rural sample" rather than from piecemeal overlapping samples of various rural industries. [The passing of time may make such aggregation difficult if surveys are conducted in other industries, as some data (*e.g.*, attitudes) would not be comparable if obtained at widely different times.]

- (iv) The "population" of 3,745 farm operators, which included all farm operators and not only wheat farmers, residing in each selected riding was obtained from the electoral rolls.
- (v) A sample of farm operators was selected from the population of each riding by taking every n th name, so as to obtain a sample of 125 names.
- (vi) Provision for replacing non-respondents by other randomly selected persons was made by (a) drawing two "replacement" samples in addition to the original sample, and (b) specifying that next-door neighbours of non-respondents could be interviewed where the non-respondent's farm had been visited.

The shires and ridings in which the survey was carried out, their "populations" of farm operators, and the size of the theoretical and actual sample of persons interviewed are shown in table XXXIX.

TABLE XXXIX.

Number of Farmers Interviewed, Compared with the Number Residing in each Selected Riding.

Shires.	Riding.	No. of Enrolled Farmers.*	Theoretical Sample.	Actual Sample.
Northern—				
Macintyre	C	187	6	6
Namoi	D	213	7	7
Cockburn	A	235	8	9
Liverpool Plains	A	361	12	12
Tamarang	B	143	5	5
Total ... ..	...	1,139	38	39
Central—				
Coonabarabran	C	309	10	10
Coolah	C	58	2	2
Gilgandra	A	60	2	2
Gulgong	C	152	5	5
Jemalong	A	238	8	8
Total ... ..	...	817	27	27
Southern—				
Weddin	B	303	10	10
Burrangong	A	255	9	9
Narraburra	B	231	8	8
Jindalee	D	63	2	2
Yanko	A	240	8	8
Lockhart... ..	C	345	12	12
Culcairn	B	170	5	7
Coreen	A	182	6	6
Total ... ..	...	1,789	60	62
Total, all Shires ... ..	...	3,745	125	128

* For the purpose of the sample, "farmers" included persons whose occupations were listed as farmer, grazier, sharefarmer, station-manager or farmer-and-grazier.

Degree of Non-Response.

Of the persons listed and/or contacted, 106 were for various reasons, listed as non-respondents. The reasons given for the rejection of persons from the sample are set out below. It is noteworthy that more than half of the non-respondents were rejected from the sample by the interviewing officers on the grounds of ineligibility or unsuitability, and that only nine refusals to co-operate were encountered.

Persons—

(i) Ineligible or unsuitable for interview—					
Area of farm less than 300 acres	..	..	..	..	24
Grazing properties only	.	..	..	..	7
Vegetable grower	..	..	..	..	1
Employee	.	..	..	..	2
New settler	..	..	..	..	1
Operator no longer farming	..	..	..	..	4
Farm recently changed hands	..	..	..	..	13
Farm in another shire	..	..	..	..	3
					—
Total	..	..	..	..	55
(ii) Unavailable for interview—					
Operator absent	..	..	..	..	19
Operator ill	..	..	..	..	2
Operator deceased	..	..	..	..	1
Operator left district	..	..	..	..	1
Operator not known in district	..	..	..	..	7
Unable to contact	..	..	..	..	9
					—
Total	..	..	..	..	39
					—
(iii) Unwilling to be interviewed	..	..	..	..	9
(iv) Other reasons	..	..	..	..	3
					—
TOTAL	..	..	..	..	106
					—

To these non-responses should be added a certain amount of non-co-operation evident in answers to questions relating to more personal matters such as financial position, debts and expenditure. However, as is evident from the main body of the report, the bulk of farmers co-operated most willingly, and the response and interest in the survey displayed by farmers was encouraging and gratifying.

Comparison of the Sample with Published Data.

Since the method of selection of *farms* could be expected to result in the over-representation of farms operated by more than one farmer, due to the fact that the chances of a farm's selection were proportional to its number of operators, it would be desirable to compare the sample with the population in respect of the proportion of one-, two-, three-, etc.. man farms. However, statistics classifying the population of farms according to the number of operators are not available, so that such a comparison is not possible. But since there is an association between *size of farm* and the number of persons employed on it, it is possible to secure a rough measure of bias from this source by comparing the sample with the population in respect of farm size.

Size of holding statistics are available for the year 1947-48 on a divisional basis¹⁹. Most of the survey shires fell within the divisions of North, Central and South-western Slopes, North Central Plain and Riverina. The proportion of "small," "large" and "very large" holdings in these divisions is compared, in Table XL, with the proportion in the sample. Seven farms located in the Central Tablelands Division have been excluded from the sample, in calculating the figures shown in Table XL, and the size of survey farms taken is for the year 1948, so as to make the two sets of data more comparable.

TABLE XL.

Distribution of Farms, According to Size, in the "Population" and the Sample.

	Size of Holding (Acres).		
	300-999.	1,000-1,999.	2,000-10,000.
	Per cent.	Per cent.	Per cent.
"Population"	46	25	29
Sample	37	37	26

Statistical analysis reveals that the sample differs significantly from the "population" in respect to the distribution of farms by size. It is to be noted, however, that this "population" corresponds only roughly with the actual population, since the forty-two "wheat growing shires" by no means comprised all the shires in the four statistical divisions used in the calculation of Table XL. The sample is biased in favour of farms between 1,000 and 2,000 acres, and is deficient in the "small" and "very large" classes of farms.

The bias in favour of larger farms has already been partially explained by their greater chances of selection. For the slight deficiency of very large holdings, the two most probable reasons are that—

- (i) the method of selection favoured the large family or partnership-operated farm, where the several operators each have a chance of selection, rather than the grazing property where only the "grazier" or "station-manager" had a chance of selection, the rest of the employees being listed as "station hands," etc.; and
- (ii) field interviewers were somewhat biased against interviewing graziers who had no interest in wheat growing; of the 106 selected persons who were excluded from the final sample, seven were rejected because they were purely graziers. One of these owned a property of 64,000 acres. The final sample contained the names of eighteen graziers, whereas the original sample had contained the names of twenty-four. If these twenty-four had all been included, the sample would probably have contained almost the same proportion of larger properties as the population.

¹⁹ *New South Wales Statistical Register for 1947-48*, pp. 82-83.