

MANAGEMENT STYLES OF CANTERBURY FARMERS

**A STUDY OF GOALS AND SUCCESS
FROM THE FARMERS' POINT OF VIEW**

John R. Fairweather

and

Norah C. Keating

Research Report No.205

November, 1990

Agribusiness and Economics Research Unit
PO Box 84
Lincoln University
CANTERBURY

Telephone No: (64) (3) 252-811
Fax No: (64) (3) 252-099

ISSN 0069-3790



The Agribusiness and Economics Research Unit (AERU) operates from Lincoln University providing research expertise for a wide range of organisations concerned with production, processing, distribution, finance and marketing.

The AERU operates as a semi-commercial research agency. Research contracts are carried out for clients on a commercial basis and University research is supported by the AERU through sponsorship of postgraduate research programmes. Research clients include Government Departments, both within New Zealand and from other countries, international agencies, New Zealand companies and organisations, individuals and farmers. Research results are presented through private client reports, where this is required, and through the publication system operated by the AERU. Two publication series are supported: Research Reports and Discussion Papers.

The AERU operates as a research co-ordinating body for the Economics and Marketing Department and the Department of Farm Management and Accounting and Valuation. This means that a total staff of approximately 50 professional people is potentially available to work on research projects. A wide diversity of expertise is therefore available for the AERU.

The major research areas supported by the AERU include trade policy, marketing (both institutional and consumer), accounting, finance, management, agricultural economics and rural sociology. In addition to the research activities, the AERU supports conferences and seminars on topical issues and AERU staff are involved in a wide range of professional and University related extension activities.

Founded as the Agricultural Economics Research Unit in 1962 from an annual grant provided by the Department of Scientific and Industrial Research (DSIR), the AERU has grown to become an independent, major source of business and economic research expertise. DSIR funding was discontinued in 1986 and from April 1987, in recognition of the development of a wider research activity in the agribusiness sector, the name of the organisation was changed to the Agribusiness and Economics Research Unit. An AERU Management Committee comprised of the Principal, the Professors of the three associate departments, and the AERU Director and Assistant Director administers the general Unit policy.

AERU MANAGEMENT COMMITTEE 1990

Professor A C Bywater, B.Sc., Ph.D.

(Professor of Farm Management)

Professor R H Juchau, B.Com., B.Ed., M.A.

(Professor of Accounting and Finance)

Professor A C Zwart, B.Agr.Sc., M.Sc., Ph.D.

(Professor of Marketing)

R L Sheppard, B.Agr.Sc. (Hons), B.B.S.

(Assistant Director, AERU)

AERU STAFF 1990

Director

Professor AC Zwart, B.Agr.Sc., M.Sc., Ph.D.

Assistant Director

R L Sheppard, B.Agr.Sc. (Hons), B.B.S.

Research Officers

G Greer, B.Agr.Sc. (Hons)

T P Grundy, B.Sc. (Hons), M.Com.

Research Officers

L. M. Urquhart, B.Com.(Ag), Dip.Com.

J R Fairweather, B.Agr.Sc., B.A., M.A., Ph.D.

Visiting Research Fellow

N C Keating, Ph.D.

Secretary

J Clark

CONTENTS

	PAGE
LIST OF TABLES	(i)
LIST OF FIGURES	(iii)
PREFACE	(v)
ACKNOWLEDGEMENTS	(vii)
SUMMARY	(ix)
CHAPTER 1 DIMENSIONS OF FARM MANAGEMENT	1
1.1 Introduction	1
1.2 Success and Goals in Management	1
1.3 Styles and Dimensions of Farm Management	2
1.4 Management Style from a Subjective Point of View	5
1.5 Conclusion	7
CHAPTER 2 METHOD	9
2.1 Introduction	9
2.2 Q and R Methods	9
2.3 Q Sorting	11
2.4 Q and Subjectivity	11
2.5 Limitations of Q Method	12
2.6 Statement and Subject Selection	12
2.7 Structured Interviews	16
2.8 Conclusion	17
CHAPTER 3 RESULTS	19
3.1 Introduction	19
3.2 A Three Factor Solution and Associated Descriptive Data	19

3.3	Factor Interpretations	21
3.3.1	Type A: the Dedicated Producer	21
3.3.2	Type B: the Flexible Strategist	24
3.3.3	Type C: the Lifestyler	27
3.3.4	Consensus Statements	31
3.4	Analysis of Interview Transcripts	32
3.4.1	Type A: Being the Best Farmer I Can Be	32
3.4.2	Type B: Finding a Balance	38
3.4.3	Type C: Having a Good Lifestyle	42
3.5	Conclusion	45
CHAPTER 4	CONCLUSION	47
4.1	Introduction	47
4.2	General Discussion	47
4.3	Future Research	50
LIST OF REFERENCES		53
APPENDIX 1	Original Statements and First Selection of Statements	57
APPENDIX 2	List of Q Sort Statements and Scores for Each Type	73

LIST OF TABLES

TABLE NO.		Page
1.	Five Examples of Two General Management Styles.	3
2.	Original Sources of Goal Statements.	13
3.	Type of Statements and Number at Various Selection Points.	14
4.	List of Goals and Values Used by Gasson (1974).	15
5.	Frequency of Rotated Factor Loadings.	19
6.	Basic Descriptive Data by Factor Types for all Subjects.	20
7.	Top-Ranked Statements for Type A.	22
8.	Discriminating, Lower-Ranked Statements for Type A.	23
9.	Top-Ranked Statements for Type B.	25
10.	Discriminating, Lower-Ranked Statements for Type B.	26
11.	Top-Ranked Statements for Type C.	28
12.	Discriminating, Lower-Ranked Statements for Type C.	30
13.	Consensus Statements.	31

LIST OF FIGURES

FIGURE NO.		Page
1	Subjects by Traits Data Matrix	10

PREFACE

The nature of farm management has long been a topic of research. The disciplines of Farm Management, Accountancy, and Agricultural Economics each approach farm management from a distinctive viewpoint and each devotes considerable attention to understanding the farm manager. In the past the AERU has contributed to this endeavour with reports on specific management issues and by regularly surveying farmer opinion. As time goes by, and with economic restructuring and drought having major impacts on farmers, this topic remains an important focus of attention.

Despite the attention given to the farmer it remains true that some important aspects of farm management are poorly understood. The human side to the farm manager often eludes analysis. In this report Drs. Fairweather and Keating address this issue by examining the subjective aspects of farm management and study a variety of farm managers in Canterbury. The report describes different styles of management and thereby improves our understanding of the farmer and how and why management varies.

Tony Zwart
DIRECTOR

ACKNOWLEDGEMENTS

The authors are grateful for financial support from the Ministry of Agriculture and Fisheries, Rural Policy Unit, and for the assistance provided by those farmers who kindly gave an interview. In developing the method, advice was received from Dr Peter Nuttal, Neil Gow, and Peter Fleming, Farm Management, Lincoln University; Pita Alexander, Accountant, Christchurch; and Gerald Scales and Geoff Mavromatis, MAF, Lincoln. Other staff from Lincoln University kindly helped with pre-test Q sorts. Special thanks to Jan Clark who did a fine job of transcribing 60 interviews.

SUMMARY

A review of literature on success and goals in farm management shows that farmers seek to achieve a number of goals and have different management styles. Since farmers combine both business and way-of-life goals in complex and personal ways we use methods which focus on the subjective aspects of the farmer in order to describe styles of farm management. The Q method, along with interview transcripts, provide a detailed account of three distinctive management styles in a non-random sample of Canterbury farmers.

The goals of the Dedicated Producer are to be the best farmer, to achieve top-quality product, and to develop the farm. Their strategy is to work hard, plan carefully, and focus on the farm itself. The goals of the Flexible Strategist are to achieve a balance and a decreased workload, to market their farm products well, and to enjoy their family. Their strategy is to market effectively, use information, and keep in touch with off-farm events. The goals of the Lifestyler are to have a good lifestyle, to enjoy their family, and to improve the environment. Their strategy is to employ family members, cut back when necessary, and nurture the environment.

The results show that when farmers are given free rein to indicate what goals are important to them, they generate three distinct styles of management. Within each style there are different ways of achieving goals and different meanings given to apparently similar goals. The management styles have some similarities with the results of other studies but in this study the types are not described in terms of a single dimension and each type contains successful farmers.

CHAPTER 1

DIMENSIONS OF FARM MANAGEMENT

1.1 Introduction

This chapter reviews the literature on the goals and success of farmers, and examines different types of management styles. The case is made that attention needs to be given to the subjective features of farm management and how farmers actively integrate multiple goals in different ways.

1.2 Success and Goals in Management

One measure of success in any undertaking is whether or not goals are achieved. Goals are ends or states which an individual desires (Gasson, 1973) and include economic, lifestyle, status, social, and other components. It is important to learn what goals farmers have, for without understanding farmer's goals, we may be unable to fully understand the styles of management used by farmers.

Several researchers have identified types of farmers who have economic and business goals. Both Olsson (1988) and Salamon (1987) discuss the entrepreneur whose major goal is to manage and run a business-oriented enterprise that optimizes financial returns. Accumulators (Pomeroy, 1987) and financial managers (Fairweather, 1987) are focused on goals of expansion and profit accumulation, and instrumental farmers (Gasson, 1973) on obtaining income and economic security. However, other researchers suggest that there continues to be another group of farmers whose major goals include preserving independence, being personally fulfilled, and doing work which is valued in its own right (Brown and Larson, 1979; Gasson, 1973). It appears that farmers have a wide variety of goals.

Research conducted by Gasson illustrates the diversity of farmer goals. Gasson (1973) described instrumental (income), social (relationships), expressive (personal fulfilment), and intrinsic (activity) goals in a pilot study of 134 small farm businesses. She found that independence was very important. In a related study of 99 farmers in East Anglia, Gasson (1974) found that socioeconomic status influenced goals. High-status farmers were concerned with progress, challenge, and the economics of farming, while medium-status farmers emphasised social values, and low-status farmers valued independence. Gasson concluded that orientation to work reflects experience on the job: low-status farmers may once have valued economic goals but now value independence to convince themselves they are not failures. The relationship between goals and achievement suggested by Gasson is supported by Pemberton and Craddock (1979) in a study of 103 Canadian farmers. Like Gasson, they found that high income farmers were more oriented to monetary goals while low income farmers were oriented to economic survival. Thus, goals are varied among farmers and are not necessarily enduring. They may

change to reflect or suit the particular circumstance of the farmer.

Gasson's approach to farm management research is useful and it has formed the basis of Kerridge's (1978) study of 71 Australian farmers. He found that intrinsic and instrumental goals were rated highest, and in particular, farmers valued independence, challenge, and satisfactory income. Coughenour and Swanson (1988) obtained similar results in finding that intrinsic and non-economic rewards were valued more than economic achievement in a sample of 1,171 Kentucky farmers. Factor analysis showed non-economic and economic dimensions to rewards in farming. Clearly, farmers in a wide variety of situations farm to make sufficient economic return to ensure survival but value both non-economic and economic rewards.

These general findings about farmers goals have their counterpart in New Zealand research. Scales (1990) found in a study of 42 farmers that those judged by accountants to be top performers emphasised maximum profit as important for success, while average income farmers emphasised average standard of living. In each group the farmers set different goals and achieved them. Not all farmers aspire to be top producers.

Other researchers provide support for the idea that farming goals are not exclusively business or way of life. For example, in a study of agricultural goals of farmers, Harper and Eastman (1980) found that the highest-ranked goals reflected a combination of lifestyle and economic goals. The three most important goals were quality of life, income, and net worth. Similarly, in a study of Kentucky farmers, Coughenour and Swanson (1988) found two types of farming rewards: those that come from non-economic aspects of farming such as freedom of decision making and pleasant surroundings; and economic rewards such as good income and financial success. They say that their findings reflect a simultaneous value placed by farmers on both kinds of goals. In a study of farm success in Western Canada, Grudnizki, Passmore, and Keating (1988) found that farmers' business goals were moderated by lifestyle goals such as independence and being close to the land. Clearly, both business and way-of-life goals are important to farmers. However, we have yet to determine how business and lifestyle goals co-exist in different degrees among farmers in varying situations. For the New Zealand situation there is little relevant material and few studies of farmers and their management styles. One way to address the complexity of farmer goals is to examine how they are integrated into distinct management styles.

1.3 Styles and Dimensions of Farm Management

Clearly, farming involves both business and way-of-life goals. The numerous goals that any farmer has are amalgamated into a management style, and there are patterns among farmers in the ways goals are amalgamated. Studies by several researchers suggest that there are, at least, two major management styles (Table 1).

Table 1
Five Examples of Two General Management Styles

<u>Names</u>		<u>Source</u>	<u>Country</u>
Entrepreneur*	Cautious Strategist	Olsson, 1988	Sweden
Accumulator*	Sufficer	Pomeroy, 1988	N.Z.
Entrepreneur	Yeoman*	Salamon & Davis- Brown, 1986	U.S.
Financial Manager Productivity Increaser	Individualist Worker Lifestyler	Fairweather, 1987	N.Z.
Extensifier*	Intensifier*	Ploeg, 1985	Italy

A common theme of all five studies in the left-hand column is captured by the style which we have labelled 'Entrepreneur'. Results from all these studies indicate that these farmers use advanced management techniques, are flexible and responsive, spend time planning, are tuned into markets and actively participate in them, are business-like, likely to borrow, and likely to invest off-farm. The common theme of all five styles in the right hand column is captured by the label 'Cautious Producer'. These farmers are motivated by profit but way-of-life considerations are ranked highly. They are cautious, avoiding risk and integration into markets and maintain a more self-sufficient operation, seeking production increases via the craft of husbandry.

The relationship between management style and long-term survival is indicated by the above authors but not in a uniform way. The table shows an asterisk next to the style the author considers most likely to survive an economic downturn. Olsson and Pomeroy both see the Entrepreneur as best suited to adapting to changes in primary production. Salamon and Davis-Brown see that cautious production best suits economic downturn. Fairweather leaves open the issue of which strategy is best for survival, and Ploeg notes that each strategy can be economically successful. Thus there is no consensus on which management style best equips a farmer to survive an economic downturn.

An important theme in the five studies summarized in Table 1 is the connection between farming as a business and farming as a way of life. While Entrepreneurs tend to act in a business-like manner, they still attach value to the farming life. Cautious Producers still have to run a business. Further, the business versus way-of-life tension is reflected in debates about changes in farming as societies develop and modernise. A common view is that family or lifestyle considerations in farming typically have

to give way to business considerations. Certainly, Olsson (1988), Pomeroy (1986), and Ploeg (1985) note that there is a growing pressure for farmers to become more businesslike in their management. Other researchers note the same pressures on contemporary farmers. Whatmore et al. (1987a:1987b) have developed a typology of U.K. farms based on degree of integration into markets. It is likely that those units deeply integrated into markets have to operate with well-developed business skills. In addition, the management literature also assumes that farmers' goals have changed dramatically in the last century (Keating and Munro, 1991). Traditional goals in farming are seen as primarily non-economic, with emphasis on community involvement, egalitarian relationships, mutual self-help, and neighbourliness. In contrast, the economically proficient farm is seen as the essence of modernity.

Despite the argument that the trend in farming is toward a strong business orientation, Gasson et al. (1988) emphasises that nearly all U.K. farms are run as family businesses and that many larger-scale family operations have flourished. In this case the family farm appears to have adapted successfully to changes in the economy. Extending this view is Hedley (1988) who argues that farmers in both New Zealand and Canada, while they espouse a business approach and emphasise economics and science, are motivated primarily by way-of-life considerations. Hedley lived with farm families and found that the initial explanation of their management practice was framed in business terms but that over the time of undertaking ethnographic research, the rationale changed to emphasise that farming was a way of life. In this case farmers not only adapt to the business environment, they are able to use it to support a way of life. Clearly, there is recognition of both business and way of life factors in management styles, but as yet no clear account of how and in what ways this tension is resolved by farmers.

Within any management style the literature also shows that there are a number of important dimensions. These dimensions are control, risk, and activity. As well, both gender and stage in life cycle may influence the preferred management style. In the methods that we will use all these dimensions are incorporated. Our objective here is to review briefly the relevant literature and make explicit the dimensions of each item.

Greer (1982) in a detailed study of Oxford farmers found that farmers adjust orientation to work as they learn the extent to which they can control farm performance. This finding is similar to Gasson's (1974) point that farmers' goals correspond with the outcome of their farming. An important point is that some farmers are fatalistic about their farm, are more risk averse, and have lower aspirations than others. One would expect that the sense of control a farmer has would manifest in management style. Thus, the entrepreneur must believe in his own ability to influence his/her farm. Alternatively, other farmers accept the limitations of themselves and their farm, and manage accordingly. It is this management style that Perrin (1983) has in mind when he advises farmers to farm badly. According to

Perrin the key is to accept limits because exceeding them will lead to trouble. In this view moderate yields, modest improvements, slow change, and old equipment are the keys to success. The perceived degree of control is an important dimension of farm management.

Olsson (1988) stresses risk as a key dimension for differentiating management style. The entrepreneur takes risks but emerges successfully while the gambler fails and frequently ends up in serious trouble. Low risk approaches include the cautious strategist who is the fundamental agricultural producer, and the defensive strategist who would rather wind down the operation than risk anything. Clearly, attitude to risk is a major dimension to management style and has a number of expressions. In general, we expect farmers to exhibit a range of responses to the notion of risk. Bennett (1980) also notes the importance of risk in his typology of management styles when he describes how some farmers are "gamblers". Risk is an important dimension of management and is related to the control dimension.

Bennett (1980) also finds that level of activity is another important dimension to management style. Thus, some farmers actively develop their farms while others sit tight and have low activity, either because they do not need to or because they believe it is hopeless to try. Again this dimension of activity is relevant to management style.

An important influence on management style is the apparent change in the role of farm women. Of relevance here is the recognition that women have increased their level of activity in farm management in recent years. These changes are occurring in an occupation in which men have been dominant in the past. The role of women in farm management is an important issue and must be included in our study.

Finally, it is likely that age of farmer, or stage in life-cycle, will influence management style. Moran (1988) points out that at different ages there are different levels of equity in the farm and that under similar circumstances farmers in different equity situations may respond quite differently. He notes that farmers with high equity tend to adopt less labour-intensive systems. In addition, stage in life cycle relates to the issue of succession, and it is likely that farmers' attitudes to passing their farm on to the next generation will have a major influence on farm management.

1.4 Management Style From a Subjective Point of View

The issues underlying the business/way of life theme are not easily resolved. However, focusing on styles promises to allow integration of multiple goals. In particular, we need to examine in detail how and in what ways multiple goals can be integrated. To do this we must recognise that farmers are not passive but take active steps to reach their goals and to react to the pressures on the farm business. Farmers' style or general

approach to farm management influences the way in which they run their businesses. For example, farmers responses to market pressure may be to participate in the markets or to try to avoid them, as Ploeg (1958) found, and these two responses are directly related to the two general types of management style described earlier. Research in this area must be oriented to the active role that farmers take in forging their own management style and recognise that a variety of goals can be pursued within a particular style of management. To date, there has been little attempt in any study of farmers' goals to improve our understanding of how farmers integrate multiple goals.

In line with this view is Olsson's (1988) distinction between normative and subjective success. To the agricultural economist and the farm management consultant, for example, a successful farmer is one who achieves selected criteria of economic performance. Successful management occurs when economic and business goals are achieved. This is normative success because it is a judgement made by observers who are external to the farm. Yet farmers also have a set of goals for their own operations and these may or may not correspond to the goals of diverse external experts. Subjective success (Olsson, 1988) is the achievement of goals identified by the farmer whatever these may be. Cary and Holmes (1982) argue that farmers' management styles reflect not only adaptation to the economic environment but also the enduring attempts of individuals to reconcile and satisfy individually-valued goals. They assume that farming strategies will always be adjusted to satisfy the personal goals of the farm operator.

The subjective point of view, with its emphasis on farmers' determination of success in achieving farmer goals, is gaining support in other research literature. Gladwin (1989) advocates the development of knowledge about farming systems from ethnographic studies of farmers who are acknowledged from the outset as being experts, regardless of what external judges think. This approach provides a more valid description than the traditional normative approach in which the researcher develops decision criteria and creates a formal, testable model of the farmers' decision process.

Focusing on the subjective aspects of farmers' decision making promises to improve our understanding of how farmers reconcile conflicting goals and create a management style to achieve what is important to them. The subjective response of farmers can be examined to illustrate their personal style of management, incorporating the variety of goals they have and what they define as success. In this study we adopt this approach and examine farmers goals from a subjective point of view. We seek to describe the distinctive combinations of goals, and how these are integrated into a distinctive management style, or orientation to farming.

1.5 Conclusion

The above review of literature suggests that farmers' management styles can be understood by focusing on the farmer as the expert on his/her farming goals. Research on farm management can usefully expand our knowledge if it focuses on subjectivity. Often in the past, researchers have developed methods or done studies which bring to light particular dimensions of management such as activity, viability, or risk. Not needed now is yet another typology. We propose to allow our subjects exposure to all relevant dimensions of farm management and use a method which allows the subjects to inform us how and in what ways they combine different goals. This method is the subject of the next chapter.

CHAPTER 2

METHOD

2.1 Introduction

In Chapter 1 we reviewed the literature on farmers goals and management styles and made the case for studying the subjective dimension of farm management. In this chapter we outline our choice of the two related methods to examine farmers' management styles. The two methods are the Q method, which is a statistical technique, and a structured interview. The Q method is described in general terms, and in relation to R methods, before describing Q sorting. We emphasise how the Q method allows for the subjectivity of the subjects to be expressed in the data generated by the Q sort, and we identify the method's limitations. The chapter describes the origin of the Q sort statements and the selection of the non-random sample of people who did the Q sorts. The general points of the Q method have been described by one of the authors in an earlier report (Fairweather, 1990), and the main sources are Stephenson (1975), Brown (1980), and McKeown and Thomas (1988). The purpose and technique of the structured interview are also described.

2.2 Q and R Methods

In July 1935 the British factorist Sir Godfrey Thompson advanced the idea of computing correlations between subjects and not between test scores, and described the approach as Q in order to distinguish it from Pearson's r and R analysis. In August 1935, in a letter to Nature, William Stephenson described a new technique of factor analysis in which the scores of subjects were factored. These two events illustrate parallel developments of an innovation. The Q method had its origins in the statistical and factor analysis development of that time.

The Q method involves subjects placing a selection of objects in a significant order. Typically, statements of opinion are rank-ordered according to a condition of instruction, such as 'most agree' to 'most disagree'. The array of statements is a Q sort. The Q sorts from several people are correlated and factor analyzed to yield groups of people who have ordered the statements in a similar way. The order of statements of all the people loading on a factor is used to produce an array typical of all those subjects. Finally, each factor and its corresponding array of statements is examined to advance an interpretation that is consistent with the array.

The Q method emphasises the concept of 'operant subjectivity'. This concept entails the assumption that all subjective phenomena (i.e., what people value or feel about something) are manifest and reducible to factor structure and that there is no right or wrong way to sort the statements. The Q sort is an individual's picture of reality. The Q sort reflects the subject's viewpoint and indicates what is important to the subject. The act of Q

sorting makes manifest the subjectivity of the subject, hence the subjectivity is operant, or measurable.

Typically, scientific measurement involves comparing the item to be measured with a known standard. When measurement is applied to people, the researcher establishes criteria (e.g., low income is less than x dollars), takes a measurement (income level) and interprets the results (description of income data). When undertaking this kind of measurement no attention is paid to what the subject thinks or feels about his or her particular income level. In contrast, with Q method attention is focused on the subject and the Q sort provides a way for subjects to express their thoughts and feelings about an issue.

The Q method is different to the typical quantitative approach or the R method as outlined in the above description of scientific measurement. The contrast between the two approaches is important and the fundamentals of the differences between Q and R methods are contained in Figure 1.

FIGURE 1

Subjects by Traits Data Matrix

		Traits				
		T1	T2	T3	Tn	
Subjects	S1	S1T1	S1T2	S1T3	. . .	S1
	S2	S2T1	S2T2	S2T3	. . .	S2
	S3	S3T1	S3T2	S3T3	. . .	S3

	Sn					Sn
		$\bar{T}1$	$\bar{T}2$	$\bar{T}3$		$\bar{T}n$

Source : Brown, (1980) p.12.

Figure 1 shows the scores, S_xT_x , for subjects and traits that can be produced from a research study. For a Q sort, the T_s represent statements and the row of scores, $S1 T1$ to $S_n T_n$, is the Q sort for $S1$. In R analysis each trait (or variable) is correlated with each other or used to produce factors linking

selected traits to each other. The analysis is based on differences between all subjects for each trait, and there is no interaction between subjects. R analysis typically would examine each trait or variable and use these data to describe the subjects or sub-groups in terms of selected traits or variables. In Q analysis subjects are correlated with each other to produce factors which link together subjects who have similar scores. The analysis is based on differences within subjects for each trait, and there are interactions between traits by virtue of the subjectivity of the subject.

2.3 Q Sorting

Subjects can rank order statements or objects, such as photographs, according to what they like/dislike or agree/disagree with. Typically, statements are placed in a number of piles to which a score is given, ranging from negative to positive. Each pile has a different frequency of statements so that those at the extreme, with a high score, have few statements and those in the middle, with a low score, have many statements. In this way the Q sort takes the form of a normal curve. The normal curve is used only for convenience because generally there are many statements about which most subjects have no strong opinion. There is no technical reason for using the normal curve and the shape of the curve has been found to have little bearing on the results.

The statements placed in the middle of the distribution receive a score of zero. Each Q sort is similar in that a number of statements have a zero score and are seen by the subjects as insignificant or irrelevant. Statements at the extremes are then measured by their score and are important because they have meaning compared to the middle or neutral statements. Thus, all Q sorts have a common base of a neutral score for neutral statements.

2.4 Q and Subjectivity

The relationships inherent in a Q sort are a product of the subject alone. The meaning of statements derives not from the individual appearance of each statement but from their relationships among each other. Precise meanings and nuances of statements derive from the position of the statement in the array.

There are many ways that statements can be sorted. For example, if there are 60 statements in an array of nine piles, with a minimum number of three and a maximum number of ten piles, there are 2.28×10^{75} ways of sorting. In practice, the factor analysis produces a limited number of common ways of sorting. Usually there are between three and seven factors. Not discussed in this report is the rotation process by which loadings on factors are refined.

The interpretation of each factor requires the development of an explanation which must fit the known facts for that factor. In

particular, attention is given to the relationships between statements, and the interpretation proceeds by continuously putting up possible explanations for the factor array until the best explanation is developed. In this way Q method integrates both deductive logic, in the selection of statements, and inductive logic, in the formulation of plausible explanations. Most importantly, in developing plausible explanations the researcher is bringing to light the values of the subjects under study. Subjectivity, made operant by the Q sort, is the quality that is the focus of the research.

2.5 Limitations of Q Method

Q method does not provide information on the proportion of types in the population. Further, it is oriented to psychological and social psychological phenomena, and not well-suited to social phenomena, in particular structural and historical processes. It is well-suited to studies of non-interacting individuals. At the technical level, sometimes subjects do not form a distinctive type because their Q sort is idiosyncratic, and sometimes subjects load on more than one factor because they have non-distinctive Q sorts. These cases raise the issue of the distinctiveness of the factors. Finally, the factor analysis entails a rotation phase which introduces both advantages and disadvantages. Centroid factor solutions followed by hand rotation best fits Stephenson's original use of Q method (Stricklin, 1987). However, hand rotation allows the researcher to produce more than one final factor solution, and the different factor solutions yield variations in interpretations. Such indeterminateness is best handled when the researcher has clear theoretical hunches to pursue and can therefore justify the selection of a particular rotation.

Despite these limitations the Q method is well-suited to an examination of the subjective dimension of farm management. In particular, it can allow farmers to show us how they rank their goals, what they define as success, and how they attempt to combine their goals into management styles.

2.6 Statement and Subject Selection

The Q method uses a sample of 30 to 60 statements selected from the population of all possible statements. Typically, the sample of statements is stratified or structured to insure that it represents all relevant dimensions of the population of statements. Relevance is derived from available theory about the subject matter in question. Occasionally, factorial designs are used. At the stage of selecting a structured sample of statements the researcher is making explicit his or her expectations about what is important. Finally, statements which have maximum diversity are selected and they are expressed in language relevant to the subject.

In this study of farmers' goals and management styles we obtained a list of 300 goal and other statements from five sources listed below in Table 2.

Table 2
Original Sources of Goal Statements

	Material	Topic	Country	Source
1.	Interview transcripts	Succession	NZ	Keating, 1990
2.	Interview notes	Goals	NZ	3 Farm Management Staff
3.	Report	Farmers'	NZ	Fairweather, 1987
4.	Interview transcripts	Success	Canada	Keating, 1989
5.	Themes from literature	Various	Various	

Statements were taken from the original sources and listed in their original form. A content analysis was conducted by sorting statements into themes. This process resulted in 20 topics. Each set of statements was typed and given a topic name. We then scrutinised each set of statements and selected, or developed, 64 statements that best represented the main themes in each topic. The complete list of original statements and the initially-selected statements is recorded in Appendix 1, along with the source of each statement. From the 64 selected statements, we made a final selection of 45 items. The outcome of the above process is recorded in Table 3. The topics fitted under three main categories of business, family, and lifestyle.

Our selection process involved pre-testing the set of 48 statements derived after the second selection. Initial Q sorts showed that some statements were ambiguous and too many were phrased in a positive sense to which most farmers would agree. We pared the statements down to one key idea to remove ambiguity, and re-cast some statements in a negative sense so that Q sorting would give a rough balance between agree and disagree statements. We also added on the additional category of urban/rural to the lifestyle groups, bringing the total number of categories to 21. The two statements in the urban/rural category were designed to appeal to part-time farmers. Some statements were expressed as general issues relevant to all farmers in order to make the issue relevant to a wide group of subjects. For example, someone may feel strongly about inheriting farms even though they have no children: a statement written as a personal issue makes it difficult for such a person to express their view.

Table 3

Type of Statements and Number at Various Selection Points

Category	Topic	Original Number	First Selection	Second Selection	Third Selection	Final Selection
BUSINESS						
	Easy Care	10	2	2	2	2
	Marketing	6	2	2	2	2
	Independence	11	3	2	2	2
	Financial Security	12	3	2	2	2
	Risk/Control	11	4	2	3	3
	Development	13	5	1	1	1
	Debt	8	1	1	2	2
	Business	<u>20</u>	<u>7</u>	<u>5</u>	<u>6</u>	<u>6</u>
		91	27	17	20	20
FAMILY						
	Intergenerational Relationships	4	1	1	1	1
	Succession	31	5	4	4	2
	Independence from Parents	8	2	2	1	1
	Goals for Children	13	4	2	2	1
	Roles for Men & Women	<u>28</u>	<u>5</u>	<u>3</u>	<u>3</u>	<u>3</u>
		84	17	12	11	8
LIFESTYLE						
	Outside interests	23	2	2	2	2
	Balance/Lifestyle	33	6	5	3	2
	Country Living	18	5	2	2	2
	Status	7	1	1	1	1
	Later Life	17	4	2	1	1
	Purpose/Challenge	18	5	3	3	3
	Aesthetics/Modesty/Con- spicuous/Conservation	15	5	4	5	4
	Urban/Rural	-	-	-	-	<u>2</u>
		<u>125</u>	<u>28</u>	<u>19</u>	<u>17</u>	<u>17</u>
	Totals	300	64	48	48	45

The selection of statements always attempted to cover every important goal or issue, and we believe that our objective was met. Evidence in support of this can be seen when our categories are compared with the list of goals that Gasson (1974) used, (Table 4). There is considerable overlap even though our list was derived independently of Gasson's study. The only differences relate to Gasson's topic of relationship to employees and this topic did not emerge in the content analysis. It appears that this issue is or was important in England but not

in other countries. In the New Zealand context there is less use of hired farm labour living on farms since the dramatic changes to primary production in 1984.

TABLE 4

List of Goals and Values Used by Gasson (1974)

	Topics in this Study
INSTRUMENTAL	
making maximum income	Business
making a satisfactory income	Balance
safeguarding income for the future	Security
expanding the business	Development
providing congenial working conditions	-
SOCIAL	
Gaining recognition	Status
Belonging to the farming community	Status
Continuing the family tradition	Succession
Working with other members of family	Balance
Maintaining good relations with workers	-
EXPRESSION	
Feeling pride of ownership	Debt
Gaining self-respect for doing a worthwhile job	Purpose/Challenge
Exercising special abilities and aptitudes	Purpose/Challenge
Meeting a challenge	Purpose/Challenge
INTRINSIC	
Enjoyment of farm tasks	Country Living
Preference for health outdoor farming life	Country Living
Purposeful activity, value in hard work	Purpose/Challenge
Independence	Independence
Control in a variety of situations	Risk/Control

Our list covers topics additional to Gasson's list and the 45 statements promise to yield interesting data on farmers' goals and management styles. While it is important to select and edit statements, it must be emphasised that the same set of words may have different meanings for different people, so it is impossible to achieve perfect 'clarity' with each statement. The aim is to provide reasonably clear units of belief with which subjects can create their own picture of reality, as they see it, using all 45 statements. It is the relationships between statements and the relative position of a statement amongst them all, that are the important structures to subjectivity.

The selection process required considerable revision and pre-testing. It is likely that some of the originality of the statements was lost in this revision process. However, the pre-testing insured that the final set of 45 statements were meaningful and unambiguous to farmers. Reducing the number to 45 meant that some good statements were discarded. However, the longer list took up to one hour to sort, and was time-consuming and taxing for some pre-test subjects.

The condition of instruction to all subjects was to sort the statements into agree, neutral, and disagree piles first. Subsequently they selected the statements they agreed with the most, then disagreed with the most etc. Subjects alternated from agree to disagree to agree, and sorted the 45 statements into the following distribution:

	Disagree			Neutral				Agree			
Score	-5	-4	-3	-2	-1	0	1	2	3	4	5
Frequency	1	3	4	5	6	7	6	5	4	3	1

Subjects were encouraged to change the position of any statement during the Q sort.

Subject selection with Q method does not follow standard random sampling procedures. The frequency of different types of people in the population is not emphasised. Rather, enough people are used in order to establish a factor, so that when a minimum of about four people do Q sorts in a similar and distinctive way their sorts can be expressed as one factor. Since the full range of factors is sought it is important to select subjects who are as diverse as possible. Typically, from 20 to 50 subjects are used for Q sorting, and by selecting diverse subjects it is possible to map out the range of distinctive ways that the statements are given meaning.

To insure a diverse, non-random sample, subjects were selected on the following dimensions:

1. gender (male, female)
2. stage of life cycle (entry, development, exit)
3. intensity (full time, part-time)
4. farm type (dairy, sheep-beef, cropping, horticultural).

2.7 Structured Interviews

In addition to the Q sort, all subjects provided a structured interview. The purpose of the interview was to allow subjects to expand on the statements and provide additional comments on them. These interviews provided an additional data set to parallel the Q sort data and with which we can insure that our interpretations of the factors are relevant to what the subjects were thinking.

The interview is structured in that all subjects were asked to comment on their Q sorts. Subjects were asked to begin with the

statements with which they very strongly agree or disagree and to work towards the centre of the distribution. In the final phase of the interview, subjects were asked to summarise their management style.

Interviews were tape recorded and transcribed. A content analysis of the transcribed interviews was undertaken independently of the factor analysis. Interview data are presented to add validity to the interpretation of the factor analysis.

2.8 Conclusion

In Chapter 2 we describe the Q method and the structured interview. With the Q method it is possible to generate quantitative data and factors that represent subjectivity and these data can be interpreted along with an analysis of interview transcripts.

CHAPTER 3

RESULTS

3.1 Introduction

This chapter presents the results from the analysis of Q sorts and the analysis of interview transcripts. We find that both sources of data support the view that there are three basic approaches to farm management. Initially, the chapter covers the factor analysis component of the research and describes the attributes of the final factor solution. Then the detailed descriptions of the factor types are provided, followed by analysis of interview transcripts.

3.2 A Three Factor Solution and Associated Descriptive Data

The Q sorts from the 50 subjects were entered into a personal computer programme called p.c.q. (Stricklin, 1990). The programme correlated all Q sorts and produced nine centroid factors, each with an eigenvalue of more than 1.0. These factors were subjected to Varimax rotation to produce eight rotated factors accounting for 63 per cent of the total variance. Table 5 shows the number of people loading on each factor.

Table 5

Frequency of Rotated Factor Loadings

Factor	Number of Subjects	
A	11	
B	6	
C	10	
D	1	
E	1	
F	2	
G	1	
H	<u>3</u>	
	35	35
Confounded sorts	9	
Not significant	<u>6</u>	
	15	<u>15</u>
		50

The significant level was set at the standard 0.45, and six subjects did not load significantly on any factor. Another nine subjects loaded significantly on more than one factor, so these subjects were not used to contribute to the data making up the arrays of statements for the three main factors. Following

standard conventions in factor analysis, those factors with only one significant loading were discarded from the analysis. Factors F and H, with two and three loadings respectively, were examined but found to be idiosyncratic and each was lacking in common themes. These two minor factors were excluded from interpretation. The three major factors were based on 36 (72 percent) of the 50 subjects and accounted for 42 per cent of the total variance.

Table 6 shows the descriptive data for the 50 subjects.

Table 6

Basic Descriptive Data by Factor Type for All Subjects

	Factor Type						Total
	A	B	C	Other	Confounded	No Loads	
1. Gender:							
Male	8	3	5	5	5	2	28
Female	<u>3</u>	<u>3</u>	<u>5</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>22</u>
	11	6	10	8	9	6	50
2. Average Age (Years)	34	42	44	47	40	41	41
3. Average Years farming	11	20	19	26	12	15	17
4. Farm Type:							
Sheep/Beef	3	1	3	2	3	-	12
Mixed	6	2	1	2	1	3	15
Horticulture	1	1	4	2	3	1	12
Dairy	-	1	1	-	1	-	3
Cropping	-	-	-	2	-	-	2
Other (e.g. deer/horses)	1	1	1	-	1	2	6
5. Average Farm Size (hectares)	310	126	108	148	346	117	192
6. Intensity:							
Full-time	10	4	6	8	8	3	34
Part-time	1	2	4	-	1	3	13
7. Average Number of Children	1.73	2.33	2.80	3.00	3.00	3.00	2.64

There were 28 men and 22 women, with an average age of 41 years. Most of the farms were either sheep/beef, mixed (cropping/stock), or horticulture, while there were few dairy, cropping, or other farms. The average farm size was 192 hectares. About two-thirds of the subjects were full-time farmers. Ages ranged from 24 years to 56 years and there was an even spread among young, established, and mature farmers. The size of farms ranged from

1 to 1,907 hectares. The non-random sample is diverse and covers the full range of dimensions thought to be relevant to farmers' goals and orientation to farming.

3.3 Factor Interpretations

As outlined in the methods chapter, each factor or type comprises a number of subjects who sorted the statements in a similar way. For each factor the computer programme generates an array of statements that best represents the group of people forming that factor. The array matches the distribution of an individual Q sort. Each statement thus receives a score, ranging from -5 to +5, indicating what is salient to each type. A score of +5 indicates strong agreement, a score near 0 indicates no significant meaning or importance, and a score of -5 indicates strong disagreement.

3.3.1 Type A: the Dedicated Producer

Type A expresses keen interest in the goal of achieving the best quality product and strongly disagrees with the idea that there is no joy in farm work. This type thrives on farm work and achieving quality product. In addition to the goal of quality product, type A emphasises planning and financial management, contributing to the farm and achieving something, and the goal of being the best farmer he/she can be. Type A is keen on producing top-quality product via careful planning and financial management, and at the personal level needs to contribute to the farm and achieve. In this way type A can become the best farmer he/she can. It follows from such an emphasis on excellence that this type is not satisfied with the current level of development. He/she is committed to hard work and, compared to the other two types, finds most joy in farm work.

Finally, type A believes that farm work, decision-making, and ownership of the business should be shared between both partners. While all types disagree with statements 26 and 27, type A is uniformly and strongly in disagreement. Those in type A value the combined efforts of the couple in achieving the goals of top-quality product and being the best farmer.

Type A personifies the values of quality production, joy in farm work, planning, contribution, ambition, development, and equality (Table 7). If we look back to Table 6 which gives a basic description of who has gone into each of the types we see that type A comprises mostly men, on average younger than all other types, and nearly all full-time farmers. These values found by factor analysis are supported by the descriptive data.

Table 7

Top-ranked Statements for Type A

	Type		
	A	B	C
18. My goal is to have the best quality livestock/fruit/crops.	+5	0	0
15. Planning and financial management are the most important parts of running the farm.	+4	+3	+1
37. I need to feel that I am contributing to the farm and achieving something.	+4	+2	+2
39. I want to be the best farmer I can be.	+4	+2	-2
12. I am satisfied with the present level of development on my farm and I do not intend to develop it further.	-4	-3	-3
26. Farm couples should not be equal partners in farm work and decision-making.	-4	-2	-4
27. Farm couples should not be legal partners in the farm business.	-4	-4	-3
33. Farm work needs to be done but there's no great joy in it.	-5	-1	-3

Themes: quality product, joy in farm work, planning, contribution, ambition, development, and equality.

Table 8 shows eight statements which discriminate type A from types B and C. Of all types, statement 13 shows that type A agrees that today's farmer has to accept debt and work with it. Since type A subjects are younger and keen on production it is likely that they have debts and see that hard work and producing good quality product can ultimately overcome debt. Type A wants to be seen as a good farmer in the community (statement 35). Presumably, a good farmer is one who achieves the more-traditional goals of good quality livestock by working hard, which are type A's main goals, and success with these will be obvious on the farm and will be visible to the farm community. Type A is not necessarily showy, but life is centred on the farm and he/she is aware of and sensitive to community perception.

Type A will make sacrifices today for the future (statement 7), fitting with the fact that this type is younger than the others. Statement 43 shows that type A acknowledges that farmers today

Table 8

Discriminating, Lower-ranked Statements for Type A

	A	B	C
13. Today's farmer has to accept debt and work with it.	+2	-2	0
35. I want to be seen as a good farmer in my community.	+2	0	-1
7. I will make great sacrifices today in order to have enough money for a comfortable retirement.	+1	-1	-3
43. Farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their farms.	+1	+3	+5
23. Farmers shouldn't feel obliged to give their children the opportunity to go farming.	-1	+3	+1
28. I like to have an easy-care household that requires as few hours of work as possible.	-1	+1	+1
2. My goal is to reduce my workload and improve my quality of life.	-2	+4	0
29. A good farmer concentrates her/his energies on the farm and isn't sidetracked by interests or activities outside the farm.	-2	-5	-4

Note: discriminating statements selected for a difference in score of two points, compared to the other two types, and not including the top-ranked statements.

must reduce their use of agricultural chemicals. However their agreement is low especially when compared to types B and C. Presumably, type A knows that chemicals are an issue but cannot contemplate immediate reductions in use because the main goal is production of top-quality product and, to his/her mind at least, it is not possible to achieve top production without using chemicals.

By slightly disagreeing with statement 23 type A is acknowledging his/her parents' role in helping them into farming, and see that since this applied to them they should help their children go farming. Statements 28 and 2 show that type A is not keen on an

easy-care household or in reducing workload. These sentiments fit our interpretation thus far which emphasises that people of this orientation are keen on hard work and production. Their enthusiasm for farm production does not mean that they will take short-cuts in the household nor will they reduce their workload. Finally, statement 29 indicates that type A acknowledges that off-farm interests are important. This type does balance farm and off-farm activities but probably not to the same degree as the other types.

3.3.2 Type B: the Flexible Strategist

Table 9 shows the top-ranked statements for type B. In this case marketing is given most strong agreement and it is seen as the key to the success of the farm. There is very strong disagreement with the idea that the good farmer concentrates her/his energies on the farm and is not sidetracked by off-farm events. Type B is tuned into the wider context of the farm for both effective marketing and for pursuing off-farm activities. In addition to this external orientation, type B seeks to reduce workload, and diversify assets while recognising that decisions affect both farm and family (statements 2, 17, and 20). There is strong disagreement with the idea that farmers are at the mercy of outside forces and that they have to adjust to the situation (statement 11). This disagreement links back the external orientation: type B chooses to act in response to his/her environment with understanding rather than fear. Production, work, and development are not the keys to success as is the case for type A, but careful marketing combined with family and lifestyle. Type B integrates family into the farm operation by acknowledging that decisions affect both farm and family. She/he disagrees with the idea that farm tasks must come before family time (statement 30). As for all main types, type B emphasises equality and legal partnership in the farm business (statement 27).

Type B personifies the values of marketing, external orientation, quality of life, diversification off-farm, family, and equality. Table 6 shows that type B comprises an equal balance of men and women, with an average age similar to the overall average. Most (four out of six) are full-time farmers.

Table 9

Top-ranked Statements for Type B

	Type		
	A	B	C
3. Attention to marketing is crucially important to the success of my farm.	+2	+5	+3
2. My goal is to reduce my work load and improve the quality of my life.	-2	+4	0
17. My goal is to diversify my assets by having on-farm and off-farm investments.	0	+4	0
20. As a farmer I always have to bear in mind how any decision I make will affect my farm and my family.	+3	+4	+4
11. Today's farmer is at the mercy of outside forces so the best you can do is to adjust to the situation.	+1	-4	+2
27. Farm couples should not be legal partners in the farm business.	-4	-4	-3
30. Farm tasks must come before family time.	-3	-4	-4
29. A good farmer concentrates her/his energies on the farm and isn't sidetracked by interests or activities outside the farm.	-2	-5	-4

Themes: marketing, external orientation, quality of life, diversification off farm, family, and equality.

Table 10 shows 15 statements which discriminate type B from types A and C. Statement 4 confirms type B's keen interest in marketing, hence the interest in information on which to base decisions. On the issue of farm inheritance, statements 23 and 22 show that type B is not in favour of helping children go farming, nor that children should get an equal share of family assets. Perhaps type B did not have an assisted beginning in farming, and his/her external orientation suggests that he/she may have come from a non-farm background. Statement 43 shows that type B is concerned with the environment, more so than type A, but not as much as type C. Type B's external orientation makes him/her aware of environment issues, but the concern is possibly not a concern for the environment per se but a concern derived from interest in marketing. Perhaps type B knows what consumers want and this makes them sensitive to environmental awareness.

Table 10

Discriminating Lower-ranked Statements for Type B

	A	B	C
4. I need up-to-the minute and reliable information in order to make informed decisions.	+1	+3	+1
23. Farmers shouldn't feel obliged to give their children the opportunity to go farming.	-1	+3	+1
43. Farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their farms.	+1	+3	+5
39. I want to be the best farmer I can be.	+4	+2	-2
44. I want to live near enough to the city to take advantage of theatres, libraries, shopping, education etc.	-2	+2	-1
8. Severely cutting back on personal expenses to keep the farm going is just not worth it. I want to live comfortably now.	-3	+1	-1
36. I won't always be a farmer and I look forward to a change in activity later in my life.	-3	0	-2
7. I will make great sacrifices today in order to have enough money for a comfortable retirement.	+1	-1	-3
22. When the time comes I want all my children to get an equal share of the family assets.	+2	-1	+3
32. The best part of farming is having your family working alongside you.	+3	-1	+4
33. Farm work needs to be done but there's no great joy in it.	-5	-1	-3
6. A farmer must maintain control over farm work. I run my farm with minimal outside help.	0	-2	0
13. Today's farmer has to accept debt and work with it.	+2	-2	0
26. Farm couples should not be equal partners in farm work and decision-making.	-4	-2	-
5. Being self-employed doesn't really give me much freedom.	-1	-3	-1

Note: discriminating statements selected for a difference in score of two points, compared to the other two types, and not including the top-ranked statements.

Statement 39 shows that type B is modestly ambitious in being the best farmer, but the criterion of success is not production of quality product but effective marketing, for which success probably is measured in financial and lifestyle terms. Statement 44 confirms the external orientation of type B. Of all types, this person wants contact with the city. Statement 8 indicates that type B will not choose to sacrifice living standards. Perhaps type B does not have to adopt this survival strategy because he/she values marketing strategies, or perhaps type B seeks to maintain a standard of living close to that of non farmers. In a similar vein, type B slightly disagrees with statement 7 showing that he/she is not interested in sacrifice.

Type B is ambivalent about being a farmer indefinitely (statement 36), while types A and C plan to continue as farmers. The fact that type B does not deny the sentiment of statement 36 suggests that he/she could pursue a different activity later in life.

Unlike types A and C, type B is slightly negative about having family working alongside on the farm (statement 32). Type B subjects do have children but it seems that their orientation is akin to non-farm businesses in which family labour is not obligatory. Statement 33 confirms type B's relative lack of enthusiasm for farm work. Types A and C strongly reject that there is no joy in farm work, while type B gives slight disagreement to this idea. Disagreement with statement 6 illustrates type B's flexibility and lack of concern over running the farm with outside help. To type B, using contractors can make good business sense and he/she is not worried about managing hired labour. For type A, having someone else do the farm work may be a direct threat to achieving the status of being a good farmer.

Statements 13 and 5 reflect type B's flexibility: he/she seeks to react to debt, not accept it, and he/she values the freedom of self-employment and illustrates many entrepreneurial qualities. Finally, statement 26 shows that type B only moderately disagrees with the idea that farm couples should not be partners. Perhaps this issue is passé to this externally-oriented type, and therefore only generates mild disagreement.

3.3.3 Type C: the Lifestyler

Table 11 shows the top-ranked statements for type C. Environmental awareness is of major concern, and type C is keen on reducing the use of agricultural chemicals on his/her farm. There is strong disagreement with the idea that working close to nature is difficult and unrewarding (statement 34). Type C values nature and seeks to promote nature by reducing chemical use. Statement 42 also receives strong agreement indicating that type C is doing everything he/she can to be environmentally aware and conserve the land he/she farms. In addition, type C strongly agrees that decisions affect both farm and family (statement 43), and that there is enjoyment in working with family (statement 32).

Table 11
Top-ranked Statements for Type C

	A	B	C
43. Farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their farms.	+1	+3	+5
20. As a farmer I always have to bear in mind how any decision I make will affect my farm and my family.	+3	+4	+4
32. The best part of farming is having your family working alongside you.	+3	-1	+4
42. I am doing everything I can to be environmentally aware and conserve the land I farm.	0	0	+4
26. Farm couples should not be equal partners in farm work and decision-making.	-4	-2	-4
29. A good farmer concentrates her/his energies on the farm and isn't sidetracked by interests or activities outside the farm.	-2	-5	-4
30. Farm tasks must come before family time.	-3	-4	-4
34. Working close to nature is difficult and unrewarding.	-3	-3	-5

Themes: environment, nature, family, equality, and external orientation.

There is strong disagreement with the idea of not having equality in work and decision-making (statement 26), concentrating energies on the farm (statement 29), and putting farm tasks ahead of family time (statement 30). The importance of family and equality to type C emerges as they did for type B but in this case having family working alongside is valued. Type C has an external orientation like type B and it is possible that in this case it is motivated by concern about the environment rather than marketing farm produce. In summary, type C is trying to achieve a farm operation which has lowered use of chemicals, on which family and lifestyle can be enjoyed.

Type C personifies the values of environment, nature, family, equality, and external orientation. Table 6 shows that type C comprises both men and women in equal number, slightly older than the overall average. There are four horticulturalists in this

group, while types A and B had only one in each. There are six (60 per cent) full-time farmers in this group.

Table 12 shows 14 statements which discriminate type C from types A and B. Statement 21 illustrates type C's family orientation and indicates that this type probably has members of the family actively working on the farm. Statement 31 shows that type C values the lifestyle component of farming. He/she gives moderate approval to this idea while types A and B disagree with it. Type C enjoys family farming because of its lifestyle. Type C does not need new equipment to achieve better productivity (statement 40). While type C agrees with the importance of planning and financial management (statement 15), these do not attract keen interest. Statement 23 shows that type C is not adamant that children should be helped to go farming. Perhaps the idea of providing opportunities is seen as a imposition on children of a lifestyle valued by parents.

Lifestyle is a key component of type C's orientation to farming. For type C, farm work is a stress reliever (statement 45) but for types A and B it is not. Similarly, only type C rejects the ambitious goal of being the best farmer possible (statement 39). Further, type C is not farming to make money, as statement 16 indicates. One would expect type C to perhaps agree with the sentiment of statement 2 which emphasises reducing workload and improving quality of life. However, this statement receives a neutral score because for type C the reduced workload is not a goal to be attained but a reality now. Similarly, type C is ambivalent about reducing debt (statement 13) probably because he/she does not have a significant debt level, and is free to enjoy the farming lifestyle.

Statement 8 shows type C slightly disagreeing with the idea of cutting personal expenses to live comfortably now. While type A disagrees because he/she needs to get established and overcome debts, type C disagrees because cutting expenses is one way of sustaining his/her valued lifestyle. Type C does not turn to production to ease financial pressures, as does type A, and hence farm work is not considered to be the most important part of running the farm (statement 19). Finally, type C is not keen on sacrifice for retirement (statement 7) because retirement implies a transition from work to the retirement phase. But for type C farm life is enjoyable as it is presently experienced and he/she sees no benefit in changing to a different activity in retirement. Type C is keen on farm work (statement 33) not because of its production implication, but because it is an enjoyable part of the lifestyle.

Table 12

Discriminating, Lower-ranked Statements for Type C

	A	B	C
21. Parents and children farming together must develop good working relationships in order to manage the farm well.	+1	0	+3
31. A lot of people put too much emphasis on the business end of farming: it's a lifestyle as much as a business.	-1	-2	+3
40. There's no need to have the latest gear. Old equipment suits me fine.	0	0	+2
15. Planning and financial management are the most important parts of running the farm.	+4	+3	+1
23. Farmers shouldn't feel obliged to give children the opportunity to go farming.	-1	+3	+1
45. Working on my farm is a great stress reliever.	-2	-3	+1
2. My goal is to reduce my workload and improve my quality of life.	-2	+4	0
13. Today's farmer has to accept debt and work with it.	+2	-2	0
8. Severely cutting back on personal expenses to keep the farm going is just not worth it. I want to live comfortably now.	-3	+1	-1
19. Efficient and properly executed farm work out on the farm is the most important part of running the farm.	+3	+2	-1
16. I farm to make money.	+1	+1	-2
39. I want to be the best farmer I can be.	+4	+2	-2
7. I will make great sacrifices today in order to have enough money for a comfortable retirement.	+1	-1	-3
33. Farm work needs to be done but there's no great joy in it.	-5	-3	-3

Note: discriminating statements selected for a difference in score of two points compared with the other two types, and not including the top-ranked statements.

3.3.4 Consensus Statements

Table 13 shows the statements receiving a similar score for each of the three types and these data provide a base to describe common features to all three types. The data in Table 13 shows that subjects are very aware that business decisions affect both farm and family. They agree also that it is important to enjoy farm work. Three statements (41, 24, and 25) are uniformly of little importance: having a nice house, making independent decisions, and not sending children to boarding school. All show moderate attitudes toward risk (statements 10, 9), but there is disagreement with the idea of taking risk on things that will make the most money (statement 10) and with the idea of avoiding risk (statement 9). Farmers recognise that their business is inherently risky and presumably they believe it is futile to

Table 13

Consensus Statements

	Type		
	A	B	C
20. As a farmer I always have to bear in mind how any decision I make will affect my farm and my family.	+3	+4	+4
38. The key to enjoying farming is to get a buzz out of your work.	+2	+2	+2
41. If you have done well, why not have a nice house?	0	+1	+1
24. It is important to be free of parents' influence and be able to make my own decisions on the farm.	0	+1	0
25. There is no need to spend a lot of money sending children to boarding school.	0	-1	0
10. I'll take a risk on the things that will make the most money.	-1	-2	-1
9. The secret to success is to avoid taking risk.	-2	-1	-2
12. I am satisfied with the present level of my farm and do not intend to develop it further.	-4	-4	-3
27. Farm couples should not be legal partners in the farm business.	-4	-4	-3
30. Farm tasks must come before family time.	-3	-4	-4

avoid risk. Stronger disagreement is registered against being satisfied with the level of development, against not being legal partners, and against putting farm work ahead of family time.

The top and bottom-ranked consensus statements show that for these three types there is recognition given to the farm as a family business. The other statements show that subjects value being equal legal partners and that they will work hard to continue developing their farm, recognising that it is a risky business. Little significance is attached to having a nice house, independence from parents' influence, and the issue of boarding schools.

3.4 Analysis of Interview Transcripts

The foregoing interpretations have focused on the factor types and used statements and their scores as the basis of analysis. In addition to the Q sort, each subject provided an interview, and these interviews were tape recorded and transcribed. In all cases the subjects gave some comment or reaction to the strongly agree and strongly disagree statements. For the less-eloquent subjects some of the comments repeated the sentiments of the statements and did not give any elaboration. But even this process was valuable because it confirmed that the statements were understood and were in the right place for the subject. Other subjects spoke eloquently about the statements, giving elaborate explanations and illustrations to back up the position of the statement. A few subjects wove the statements into a seamless speech about their approach to farming.

The task of examining nearly 200 pages of single-spaced transcripts is particularly daunting. However, the objective was not to undertake a separate analysis of all transcripts but to use the transcripts to illustrate the main points of the foregoing interpretations. To do this only those transcripts corresponding to subjects who loaded significantly on only type A, B, or C were used. The group of transcripts for each type was examined in order to see if obvious themes emerged. This process was done independently by one author while the other developed the foregoing interpretations. The following text presents the results of the transcript analysis and provides, first, a general goal for the type and then a summary of the central themes that were present in the transcripts. Each of the main themes is then illustrated with specific quotes. The notation indicates the subject number and gender.

3.4.1 Type A: Being the Best Farmer I Can Be

The central theme for this type is that of being the best farmer possible. Being the best means having good stock and being financially viable. It requires a focus on planning, and sacrificing of time and material possessions in order to have a better life in the future. Family time is not taken away from the farm but family members are involved in the business. There is a high commitment to farming, to farm work, and to the farming life. Farmers in this category can not imagine doing anything

other than farming.

Being the best farmer means knowing you have done your best as well as being seen to be the best.

14M I think it's important to be, as well as to be a good farmer, to be seen to be one.

27M I wouldn't want people to look over the fence and see a bad farm.

15F That's natural. Number one thing is you want to be the best that you can. And show people that you are going to be the best.

15F The main thing is to be good at farming.

16M As far as farming goes, I want to be the best I can be at farming.

30M I think if I just wanted to be an average farmer and just coast along I wouldn't push myself so hard.

41F Naturally you want to be the best if you can be. Second best isn't good enough for me I'm afraid. I'm a bit of a perfectionist.

44M I think everybody wants to be the best they can be at what they're doing.

One indication of being the best is to have good quality stock.

1F I started the pigs up with my husband and I'm going to have the best damned stock I can get.

2M You've got to have the best. You can always sell good quality stuff but if you've got rubbish you can't. Even when times are tough you always get rid of the best quality stuff.

14M Achieving good stock is a lot more important in terms of managing the farm well than the fact that I get on well with my family.

15F To get good stock and improve in cropping.

16M But I want to have people say he's got good sheep. As long as I'm doing all right that's fine by me. That's all I want. I want to have good healthy stock and I want to look after them. They might look after me hopefully.

46M I like to have top stock and good crops.

16M I want to get the stock better. I'm not really happy with the way they are at the moment. I really want to get on and improve my stock.

Another indication of being the best is to make a reasonable amount of money. These farmers are in business to make money.

2M Even though we might be living off little income now we still are farming to make money.

14M To be a good farmer and to make as much money as I can at the same time.

16M Yeah I just want to make a success of what I'm doing. that doesn't necessarily mean I want to make thousands of dollars.

27M I farm to make money.

30M Well that's probably the main thing we're doing

really. that's what farming's for in my situation. If you're not making any money you're not doing well. Well we all aim to make plenty of money but as long as you get enough to complete the cycle and start again next year.

44M Not necessarily something that's going to make a great fortune to retire in town on. But something that's going to give us a happy and hopefully secure future.

46M My goals in farming to first of all get things onto a more secure keel than they have been over the last few years and hope that there's a bit of financial security for the farm and family.

14M I've got to make the amount of money to achieve all these things of reduced workload and quality of life.

Being the best is a long-term goal. Farmers enjoyed the sense of achievement in working toward that goal but felt that they would never be entirely satisfied.

15F Get the most out of the farm that I can. Like do as many things as I can to improve the farm. I mean we've had good years and bad years as far as cropping goes. I want to get better in that, learn how to improve on things like that. I think the farm that we've got is big enough at the moment but basically just to do your very best. Do the very best that you can. Get the place as good as I can.

30M Setting your goals pretty high at my age then it's going to keep my interest up in the farm. Something to work towards because I think a lot of farmers don't set these goals.

30M Development is one of the main things. As a young fellow I'll keep on working as many hours as I can.

41F Well if you're satisfied with what it is and you don't intend to develop it any more well you stagnate. You might as well give up if you've got that attitude I feel.

44M You wouldn't be doing it if you didn't feel you were achieving something and that you're improving the place. If it's going down hill you're not achieving anything.

44M I don't think anybody's satisfied with the level of development.

16M It is really because I've only been farming here on my own probably a year. There's a lot of things to be done like shelter. I want to get a lot more shelter in and fencing. Just generally get the farm running better.

16M As far as farming goes, I just want to improve the farm as much as I can. I want to keep up with modern ideas too.

27M I think achievement is important. that's what I want to do. I want to achieve something and see something growing or see something developing. Doing something and doing it well.

27M I think my general approach is that it's helping me achieve something which I always enjoy doing. Which is creating something. Creating in terms of plants and growing things. It's very important. Having said that, one must be cognisant of the business side of it. And it's very easy to ignore that if you're a lifestyle person. The

other side of it you might lose your lifestyle which you want so much.

30M I get a great boost out of breeding my own replacement hoggets. You lamb them, you rear them, see them do well. Then they lamb the next year and you get a good percentage. A sign you are achieving something.

Being the best also requires careful planning.

1F The planning and financial management they're very important we've just been taught how to keep books and everything for ourselves and we sort of realise now how important all that really is.

2M You've always got to be planning ahead and thinking what you are doing and looking after your money. Or you'll go down the gurgler.

16M You've got to plan about three years ahead really because of the rotation of crops and stock goes and everything it's very important that you plan. While the financial side's always important because the way money is you've really got to know what you're spending on before you can go ahead with what you're going to do.

30M Well you have to have in your mind your year plan. And you've got to be doing the right things in the right months. So that's where the planning comes into it. Planning your work.

44M I've always like to know exactly what's going on. It makes it easier for the decisions that you make because today it is so important that you do make the right choice.

44M If you haven't got track of what you're planning to do or how the finances are going you're charging on in the dark a bit.

A good planner is well organised and business oriented.

41F You've got to plan and be organised or you are in a complete muddle all the time.

41F One of the things I struggle with most I think is well organised planning in advance. Budgeting for the season, that sort of thing.

46M The days of lifestyle are gone. If it's not run like a business well you are out.

20M You have to be very well organised so I really think that's a major part in running your farm.

20M I just think that comes down to being well organised.

Planning also includes financial planning and coping with debt. Farmers saw themselves as taking only moderate financial risks.

30M The financial thing, well you've got to keep up with your cash flow. Well I work to a cash flow budget. I've got it up on the wall in the bedroom. I see it when I go out the door everyday. And when the bank statement comes in I can look at that and see oh yes, I'm going alright. The main things I work on the cashflow, keeping in line with that, sticking to that budget and the planning is

keeping up to date with the work.

2M I won't risk too much. I won't put everything up just to be rich.

14M You've got to take some risks otherwise you might as well put your money in the POSB and not make anything.

30M You have to have debt and you've got to cope with expenses. Number 1 priority is to keep those debt payments up and keep that farm running.

Financial sacrifices are seen as necessary in order to become the best farmer, to have the best farm and to have a secure farming future.

1F We live off the skin of our teeth at the moment. If I wanted to I could dip into the farm account and just get everything I wanted really but no. We've got more important things yet. I can do it. Make the cuts now so later on when we're retired I'd like to think I can go out and get whatever I want at a supermarket or something like that.

2M Live hard now, get your goals later on.

15F If you don't sacrifice something you're not going to get anywhere.

14M I've got to go without things now to be able to realise the advantage later on. So I can't spend now. That would be fatal.

16M We haven't got much money and if I was going to do that well I wouldn't be in farming long. If I was just going to buy all the flash gear and keep things.

30M Well since I left school my main aim was to save up enough for my deposit for my farm so I sort of went without all these things like stereos, flash cars and all that sort of thing. And saved my guts out really. Earned as much as I could and that's now I got in the position I am now. So I've always sort of gone without those personal-high personal expenditures. And probably now that I've got the farm it hasn't really changed much. I've still got low personal expenditure. I'm used to that way and it doesn't really worry me.

One aspect of this factor is the great love of farming and farm work and the expectation that they will farm forever. Farm work is often done to the exclusion of outside activities. The focus of personal and family activity is on the farm.

2M I don't see farm work as work.

27M I wouldn't be here if I didn't think there was some joy in it.

30M Farm work is not work. It's so enjoyable I don't feel I'm working.

2M I think farming is only for people that have got it in their blood. They happen to be able to really get out on the land and get filthy dirty and cold. Still be able to keep going because I think there's a lot of people who haven't got that in them.

16M It's good when things go right. It's a real kick when

things do go right I find.

16M If you're not enjoying your work well you know you're defeating the whole purpose really. You might as well not be in the job you're in. That's really why I stuck that one quite high.

1F Well I disagree with I won't be a farmer one day. That's basically saying I don't care enough about farming now so one day I'm going to shove it aside and do something else. That's not me. Oh I can see me going round my pigs when I'm 90.

20M I'll still be training horses when I'm 200. Hopefully. It's what I like doing.

30M My aim is to farm the rest of my days.

44M I don't plan to do any other activity at this stage. I've other interests that I'd like to spend more time with in the future but for now the mainstay will be farming.

27M I haven't got any joy in looking forward to not being a partner. Getting out of it in other words.

30M Well the farm's got to come first I believe. Like if I joined a whole lot of organisations and was only home two days a week the farm would go backwards pretty quick. It's alright to do outside things as long as you can keep your farmwork up.

16M I find that if you stay on your farm you get to the stage where you get a bit anti-social I suppose. A bit stagnant.

20M Although the farm does take 90 per cent of the time I think you have to have outside interests. Otherwise you just end up a zombie.

2M I'd probably work on the farm all day rather than going out and doing something, going to town.

1F Our family time is farm work isn't it. We take the kids out on the truck round the lambs as much as possible. they go down the back with the pigs and everything.

2M It's always nice sometimes you don't have the time to go out and do family things. You are able to do things round the farm instead.

16M It's one of the few jobs that you can actually have your family working beside you and I find it really enjoyable taking the kids out with my wife out there.

Respondents placed a high value on having working and legal partnerships with their spouses.

1F I'd like to think that I'm on an equal with my husband. We run the pigs together and we run them he's not allowed to do anything without me saying, agreeing with it, and I'm not allowed to do anything.

2M We work at our best together.

2M They should be equal partners and they should be legal partners as well. If they're going to work together and do everything together well they should have it legal together.

15F It's got to be a joint thing. If it's not I don't think it's fair because you're both putting work into it. Why can't it be half and half.

16M You've got to be 50/50. It gives your wife a bit of interest if she's got a stake in it. Otherwise she just feels that she's working for you.

20M I think that they should be legal partners. I feel very strong about it really. I think like years ago a lot of the ladies just got pushed in the background didn't they?

16M If you don't have your wife involved you're just going to make the job doubly as hard I reckon.

44M It's both their livelihoods so both of them should have an equal say. If they are working together then if they are both financially involved, legally involved as well. That's something that's been commented on to me by having not been married that long that we've both got our name on the cheque book. Somebody commented that I was game. That was from somebody who hadn't had a particularly successful marriage. And I thought well I have a lot of faith that it's going to be more than a six month wonder.

30M Well if you can get your family, wife involved I feel it's a family thing. You've got unpaid labour there. And also you've got the support from the family. And you will aim for the same goals.

44M I enjoy being on the farm and having the family involved and see it as a bright future.

In summary, the analysis of transcripts for type A shows importance given to the following themes:

- do your best and be seen to be the best
- good quality stock
- reasonable amount of money
- careful planning
- well organised and business-oriented
- financial planning, coping with debt, and few risks
- financial sacrifices
- love of work
- working and legal relationship with spouse.

These themes were an integral part of the type A interpretations and so the analysis of transcripts improves the likelihood that the interpretations are well-founded. But more than this the quotes from transcripts adds richness to our understanding of the type A management style.

3.4.2 Type B: Finding a Balance

Unlike farmers in type A who were focused on farming and farm production, respondents in type B were most interested in finding a balance in their lives. There were several elements to this balance: finding a balance between business and family life, between time spent on and off farm, between city activities and country life and finally, between periods in life when the person was farming and periods when they were doing other things. Balancing was undertaken with an understanding that farming was a competitive business which required difficult decisions. Good financial management and sound business practices were important

to these farmers as they were to those in type A.

The business is a means to a desirable life with many facets.

37F Well, if your financial management isn't right well the farm isn't going to make money so you're wasting your time. You have to farm to make money because otherwise today there's not much point in it.

49F I think that we have to see farming in the context now of our total lifestyle and how we can use farming to get enjoyment for today but also ensure that we've got long term satisfaction out of life and that we're planning for the future.

22M You must derive enough income to sustain your family and yourself.

22M I think any business if it's worth preserving should show a good profit. So I don't think a farmer should accept a big debt load.

The best balance is achieved by focusing on trends outside the farm gate. Farmers felt that they could influence their own lives by decisions they made.

49F The attitude that we're at the mercy of anything outside is the biggest destroyer of farming motivation and it's such a fallacy because the one thing that farmers have control of is their attitudes. And if they feel that they are victims that is actually going to predetermine their other management decisions.

10M You have a bigger influence on what is outside by doing your best. Your success or failure depends on you being as good if not better than your fellow round about. And that has nothing to do with the outside influences on your farm. They are always the same.

22M It's important to have a broad spectrum of interests to be a good farmer. You can't isolate yourself down on the farm because you'll miss what's going on in the market place.

Balancing of business and family life meant moderation in effort put into the business and a willingness to take time for family activities as a priority.

10M How do you define the best farmer you can be? Does that mean you have the prettiest animals or does it mean you have the fanciest or nicest looking crops? Does it mean you have the best equipment around the place? Does it mean you have the best profit margin or does it mean you have a reasonable profit margin and a nice family lifestyle? If that's it, then I want to be the best farmer I can be.

10M I guess I'm a moderate. I'm not out on a limb in terms of new technology. Likewise, I'm probably not out in all the high risk crops if you like. I am looking at surviving first and the profitability second and I guess this also comes back into the quality of life. You have to

consider the family side of your life. I guess that the balances that come into your resource allocation decisions of how much time you spend doing what and how much risk you have. That all comes into it.

47F The importance of family life away from the farm as well as to get a balance.

22M I think a family comes first before the farm. Yet the farm is a means of income so it's very important to the family.

22M You are in control of the whole situation. Sacrifices should be made for the members of your family and your friends.

37F I know farm tasks are important but they shouldn't come to the detriment of family time.

47F Any decision you do make does affect the farm in as far as if Dad wants to stay home and just milk cows morning and night he's not going to have time for his family outside the farm.

47F Even if you give your family ten minutes in the morning it's not going to change the state of your farm is it. For example, for a long time my husband did not see the children in the mornings because he was milking. They would get up and I would take them to school. And the same at night time. We weren't having any meals together because they were at school for their lunch and for the evening meal he'd be outside. So we talked about it and he decided to come in from milking and take them to school because no school bus comes past here. He used to take them to school and for five or ten minutes he would be talking with them and have contact and we've done that for many many years since we started.

47F I think the danger is that the farm can take over and destroy everything else. You know, your family life.

49 F One of the advantages of being a farmer is that you've got control over your whole day's programme and if you don't plan in family time then really what are you doing?

Balancing also included on and off-farm activities. A shared goal was that of reducing work to improve quality of life. Farmers organised their work so that there would be time for other things.

37F I think everyone's goal should be to reduce their work load and improve quality of life.

10M Many farmers would use outside contractors. It's a matter of efficiencies and labour resources and a whole lot of other things.

37F You've got to look at the ways you're running or managing your farm. Then you don't have to work so hard if you manage so that other people do the work or get contractors in etc.

37F It's important to me to have an easy-care household.

37F No I don't think a farmer should maintain control over the farm if he can get more efficient outside help.

47F But I also do see farming life as quite stressful and

farmers tend to sometimes take on a work load that overrides other qualities of life. If the quality of life is to be high, outside interests have to be taken up.

37F I think a farmer would be a very boring narrow person if he didn't have some outside interests.

49F If somebody just concentrates their energies on the farm they are not only boring but they are not necessarily the rounded people that you have to be to philosophically cope with all the challenges that farming brings.

Unlike those in type A, farmers in type B saw farming as one phase in their lives. They expected to do other things later on, especially during retirement years.

10M No, I don't intend to be farming when I'm 83. So in that case I'm going to retire at some stage. But at some stage I will be retiring from farming and at that stage there will be another activity later in my life.

49F We're not always going to be farmers and we have to make financial arrangements so that we are going to enjoy retirement.

Another area of balance was between city and country pursuits and investments.

22M I want to live near the city because there are advantages but the country lifestyle I want to maintain too. In fact, I want the best of both worlds. So that's why I'm close to the main centre for marketing produce and also for all other facilities that go with city living as well.

37F To have a balance in your life. And I like living where we are because we are close to Christchurch. I can work and do all those things, go to town.

47F I can see other things outside. My interests are more in the art world, so I can see another whole world out there that I want my family and children to experience as well.

47F The city offers a different way of life and the communities are now getting so small that they're not offering that opportunity any more.

1F I think it's good to have off farm investments if you can as a balance. Especially with what we've been through in the last 6 years.

47F I have always tried to have money outside the farm personally.

47F There's many ways you can diversify.

In summary, the analysis of transcripts for type B shows importance given to the following themes:

Business is a means to a desirable life with many facets
Balance is achieved by focusing on trends outside the farm gate
Balance of business and family goals
Balance of on and off farm activities

Farming as one phase in life
Balance between city and country pursuits, and investments

3.4.3 Type C: Having a Good Lifestyle

In sharp contrast to type A, subjects in type C see farming as part of a country lifestyle. The country is a good place to raise children, learn from nature, and be away from the stresses of city life.

Enjoying farming means enjoying the lifestyle.

7F It is lifestyle. Getting something out of it for ourselves.

8M The rural environment gives us quality of life.

8M The good life syndrome as we call it.

11F And for me it's a lifestyle. It's very definitely lifestyle.

12M The lifestyle thing comes first.

19F I'd hate to have any other lifestyle than this.

25F It's a way of life we enjoy.

25F The thing I enjoy most is the lifestyle.

36M It is a way of life.

12M A lot of people put too much emphasis on the business end of farming. It's a lifestyle as much as a business. that's definitely our case.

8M Lifestyle, security, superannuation. Subsistence, where if they turn the oil off tomorrow, I won't starve. Neither will I go cold. I won't go hungry so there's an element of insurance. There is also an element of recreation. Because that's built in. There's that element of achievement. Space to breathe. And it's a lifestyle thing. I don't want to be the richest man in the world, I just want to be reasonably comfortable and be in a position where I can provide for my family.

19F Well it definitely is a lifestyle. It's rewarding in all sorts of ways really. Just being outside watching the horses grow and watching the kids play outside and see the horses.

Also in contrast to those in type A, making money is not an indication of success for life-style farmers. Making money is a means to an end which is having a good quality of life.

12M A means to an end basically. It's not farming to make money. Farming I guess out of necessity to control the area of land we have which is a nice place to live.

8M The rural environment gives us a quality of life. We didn't come out here to make money so we didn't come out as business people.

8M We opted for the less money and to come back here and go for the lifestyle really. And we're not sorry that we did that. Not sorry at all.

8M There's no point in being the richest man in the graveyard.

19F Well it is a good life. I mean you'd always like more

money and to be able to finish everything. But as a lot of people have said, well if you go into a house that's completely finished you don't appreciate any of the things along the way.

21D I think making great sacrifices doesn't set you off on the right foot really. Just for the sake of money, because you may not live to retire anyway.

36M We wouldn't be here today farming if it was totally financial.

36M You've got to feel as though you're achieving something which is perhaps not so financial.

36M I would say that if you wanted to make money you certainly wouldn't be a farmer. But as a family unit and a way of life it's pretty good set-up really most of the time. Certainly not a good investment financially speaking in today's situation.

36M My approach is to get on with it and enjoy what we're doing and if there's a dollar to be made we make it. If there's a few losses we've got to get round it somehow and we try and run the farm in the most efficient manner that we can stay here as a family unit and carry on.

8M Depends on what you measure success by. I mean if it's the biggest car and the biggest amount of what I have, then that doesn't necessarily mean success to me. But if it's personal satisfaction with what you do and what you achieve and what you are then maybe that's success.

While farmers in type A enjoyed their work, many also found it stressful. For farmers in type C, farm work is both enjoyable and a way to reduce stress.

8M We find that being here alleviates the need for a holiday because in actual fact for me it is a holiday.

7F It's the type of work that you feel satisfied with at the end of the day.

7F His work is mental so when he comes home here it's physical so it sort of balances itself out.

8M Why should you work 70 hours a week and take risk for a return if one is able to enjoy a lifestyle.

8M So I like it and that's why it relieves stress for me.

12M Sure I'd like to reduce my workload and improve my quality of life but part of the quality of life is doing this work.

19F Our whole life is what we do.

26M Next year we will be totally all gate selling. And we enjoy attracting clientele into our shop and presenting our produce well.

36M If there was no joy in it I wouldn't be here and I wouldn't carry on because you have to have something you enjoy doing.

48M Work is a great stress reliever, I believe it is.

48M Well I think if you haven't got job satisfaction then you know the rest of the things aren't going to be worthwhile.

26M I think if there's no great joy in it I'd be looking around for some other activity.

8M I find it is rewarding. I find a joy in it. I like to lean on the fence and look at my stock and think yes well, that's good. I find a joy in that.

11F I have to enjoy what I'm doing or I can't do it. And mentally switch off if I'm not enjoying what I'm doing and it becomes a real drudge as I've got older I become aware of the fact that I'll use any excuse to actually not do what I'm doing. And sure I very definitely am not a fan of housework.

A central concern of lifestyle farmers is that the farming life be good for their families. When it comes to a choice, family comes before farm.

7F The whole reason we came out here was the family lifestyle. Having the children with you and doing things with you as a family.

7F For bringing children up in a very pleasant environment.

11F I don't really see farm tasks as coming before family. Family comes before farming tasks totally.

21F I think you always have to consider your livelihood but you haven't got the children around that long and so you've got to make decisions that do go with the family as well.

21F I feel my family comes first.

25F Everything we decide on is the family because our family and business are combined. Because we run it as a family business so if the family aren't happy, there's not much point in it anyhow as far as I'm concerned.

26M I think the greatest joy is being able to do something that the rest of the family enjoys. They enjoy the way of life but that's not everything. If we were making a meagre income we would need to look at what we're doing. But making a reasonable income plus the family enjoyment the two go hand in hand.

36M We are a family unit and to run a farm successfully the family unit has to fit into the situation well. My wife and children all help on the farm. If it wasn't for them it wouldn't work in today's financial situation.

48M I think there's times when you have to be careful not to let your farm dominate too much at the expense of other things particularly if your family's not totally involved in the farm.

48M Because that's what I like doing. That's my main interest. You know it's a family thing as well.

48M I'd say that if you aren't able to live with yourself and your family and enjoy it with the problems that result from the operation affecting everybody too much then you're better off out of it.

Farmers in this factor are conscious about the environment and are actively trying to farm in environmentally friendly ways.

7F You've got to look after the land for it to look after you. You've got to put the time into it to get

satisfaction out of it.

7F You learn from nature. It's very rewarding.

7F We've got lots and lots of plans. They don't necessarily revolve around farming. Improving the environment yes.

8M I get satisfaction from work with my hands as well. This enables me to work with my hands in so many areas. I built the house. Everything here I built. In our case we created an environment. There were no trees, no fences, nothing. So that's satisfaction that also returns me something.

36M We are certainly becoming more aware of the environment and chemicals and plastics.

In summary, the analysis of interview transcripts for type C shows importance given to the following themes:

Enjoying farming means enjoying the lifestyle
Money is not an indication of success
Farm work is enjoyable and a reliever of stress
Family comes before farm
Conscious of the environment.

3.5 Conclusion

The data presented in this chapter derive from two sources. The Q sorts and their factor analyses provided data to form the basis of a description of three distinct styles of management. The interview transcripts provided data which confirmed and extended the three descriptions. Since much material has been presented in this chapter we provide a summary of the main points and provide appropriate labels for each type.

Type A values quality product, joy in farm work, planning, contribution, development, and equality. This type comprises mostly younger men who are full-time farmers. They tend to accept debt, want to be seen as good farmers, and do not want to reduce their workload. They want to do their best, have good quality stock, make a reasonable return, plan carefully, will sacrifice and work hard in an equal relationship with their spouse. Their main goals are to be the best farmer, to achieve top-quality product, and to develop their farm. Their strategy is to work hard, plan carefully, and focus on the farm itself. Their style of management can be described by the label "Dedicated Producer".

Type B values marketing, diversification off-farm, family, and equality. This type comprises men and women, including some part-time farmers. They value decision-making information, they want to live near to the city, and they are aware of environmental issues. They do not intend to be farmers indefinitely, they do not try and run their farm without outside help, and they do not want family members to feel obliged to work with them. These subjects pursue business to achieve a desirable life, and they focus on off-farm trends. They balance business and family goals, on and off-farm activities, and city

and country pursuits and investments. Farming is one phase in their life. Their main goals are to achieve a balance and a decreased workload, to market their farm products well, and to enjoy their family. Their strategy is to market effectively, use information, and keep in touch with off-farm events. Their style of management can be described by the label "Flexible Strategist".

Type C values the environment, nature, family, equality, and external orientation. This type comprises men and women who are slightly older than the average, and includes most horticulturalists. They value working with family, the lifestyle of farming, and do not require the latest equipment. They see farming as a stress reliever, they do not need to be a top farmer. They are not farming strictly to make money. These subjects enjoy the lifestyle of farming where money is not an indication of success, and farm work is enjoyable and relieves stress. Their family comes before the farm and they are conscious of the environment. Their main goals are to have a good lifestyle, to enjoy family, and to improve the environment. Their strategy is to employ family members, cut back when necessary, and nurture the environment. Their style of management can be described by the label "Lifestyler".

All subjects give recognition and value to the farm as a family business. They all value being equal legal partners and they will work hard to develop their farm, recognising that farming is a risky business.

CHAPTER 4

CONCLUSION

4.1 Introduction

This short chapter examines our research results in the light of other research on farmers goals and argues that the trichotomy developed here is a better reflection of management styles both generally and in New Zealand. Attention is given future research needs.

4.2 General Discussion

The literature review in Chapter 1 noted that farmers have many goals and that they have different styles of management. A number of studies described two main management styles which we labelled Entrepreneur and Cautious Strategist. We argued that it is necessary to focus on management styles because these reflected a combination of goals. Further, we found that while the literature recognised the presence of, and tension between, business and way-of-life goals, there was no account of how farmers might resolve this tension in distinctive ways. We proposed to examine management styles using methods which responded to how farmers react to their circumstances.

It is appropriate now to compare the results of this study with the results of earlier studies, both overseas and in New Zealand.

Olsson (1988) contrasted the Entrepreneur and the Cautious Strategist. The Entrepreneur is an economic manager with clearly-formulated business goals, taking calculated risks based on carefully-assessed information. He has a wide range of contacts both within and outside his own field of interest. The Cautious Strategist sees himself as an agricultural producer, pursuing a way of life with roots in rural areas, and does not take unnecessary risks. The two types are distinguished in terms of their attitude to risk. Neither of these types corresponds exactly with our types. The Entrepreneur has some similarities with the Flexible Strategist in that he is not wedded to the farm. The Cautious Strategist has some similarities with the Dedicated Producer in that both identify with rural areas and emphasise production. But each of our types has important differences. Our Flexible Strategist has some Entrepreneurial qualities but these are balanced by family goals. Our Dedicated Producer does not shy away from risks. The lack of correspondence of our results with Olsson's is not surprising since Olsson's data came from Swedish farmers and did not include the breadth of goals in our study. Despite the difference in context, some similarities do occur.

Salamon and Davis-Brown (1986) contrast the Entrepreneur and the Yeoman. The Entrepreneur is the farmer with a well-run business enterprise who focuses on the challenge and business of farming. There is little concern with passing on the farm to the next

generation, and each generation is responsible for making its own way in farming or pursuing education in other occupations. In contrast, the Yeoman gives priority to continuing farming and family ownership of land. Children are obliged to help ensure that the farm passes intact to the next generation. Farms typically are smaller and all (male) children continue in farming. In essence, these authors partition their dichotomy mainly on attitude to farmland transfer and do not focus on the details of management style. Our results do not partition according to inter-generational transfer and do focus on management style. The Entrepreneur has some similarities with our Dedicated Producer. Both like the challenge of producing and both see their farms as business activities. None of our three types put heavy emphasis on inter-generational transfer.

Van der Ploeg (1983) links Italian farmers goals to a general strategy, or logic of operation, which manifest in two different styles of management. The extensifier farmer delegates farm tasks via market relations and organises the farm operation in response to market prices. This entrepreneur adapts the farm to the market and focuses not just on production but price/cost ratios, so that cost reduction is important. In contrast, the intensifier farmer seeks to minimise dependence on markets and maximise control over the production process. Product price is relevant, but not highly significant to this type of farmer, while integrating cycles of production and inputs is highly significant. Van der Ploeg accounts for contrasting management styles in which the orientation to the market is the decisive factor. Our results show some parallels. The extensifier has some similarities with the Flexible Strategist in that both respond to markets and will quickly modify production areas to suit the market realities. However, it is not correct to see the intensifier as corresponding with the Dedicated Producer. Both the Dedicated Producer and the Flexible Strategist are tuned into markets but to a different degree. Further, there is some similarity between the extensifier and the Lifestyler. Both are farm oriented but the intensifier is concerned about production levels and income in its own right whereas the Lifestyler accords this a low priority and pursues income for lifestyle purposes.

The New Zealand literature on management styles includes Pomeroy (1988) and Fairweather (1987). Pomeroy describes the Accumulators as an entrepreneur oriented to expansion and profit, planning, diversification, and in particular, controlling their marketing. In times of downturn they will invest off-farm. Sufficers were less cost conscious and put social and family goals ahead of business goals and preferred to avoid risk. This group is considered by Pomeroy to be less well-equipped to survive the rigours of falling economic returns. The distinction in types is based on the extent of rigorous business practice. Accumulators have much in common with Flexible Strategists in that both types are externally-oriented and quickly adjust to market signals. But the distinction implies that Accumulators do not have, or do not value highly, family goals and on this point the similarities to the results here do not apply. The Flexible Strategist is responsive to markets but is pursuing

family goals. The Sufficers are similar to the Lifestylers. In general, there are some strong similarities between Pomeroy's types and those found in this study.

The results of this study show some compatibility with Fairweather (1987) who described farmers as "Financial Managers", "Productivity Increaseers", "Individualistic Workers", or "Lifestyle Farmers". Clearly, there is a correspondence between the Financial Manager and the Flexible Strategist. Both put emphasis on market signals and adjusting production. There is a correspondence between the Productivity Increaseer and the Dedicated Farmer: both want to increase production per unit area. There is an obvious similarity in the Lifestyle Farmer. The earlier study had an additional type in the Individualistic Worker, and although this type has some common sentiments with the Dedicated Producer, was not evident in this study.

The above discussion compares management styles in five studies with the styles found in this study. Two general points can be made. First, some of the studies use a single criterion (e.g., risk, inter-generational transfer, or orientation to market) to demarcate their type. It is unlikely that identical results would be found since this study avoids using a single dimension. However, despite the difference in approach there were some results which were similar to existing studies. Further, the presence of different criteria in the literature vindicate our use of a wide range of statements incorporating all criteria and dimensions. Studies that use a single criterion have a tendency to emphasise arbitrary distinctions between types. For example, entrepreneurs are seen as not emphasising family goals and some opposing type does emphasise family goals. This conclusion is likely to be a result of the method rather than an accurate reflection of farmers' management styles. We have found that all farmers value family goals, but they emphasise them, and give meaning to them, in different ways. It is not useful to say that one type is business-oriented and the other types are not. As our results show there are at least two ways, and possibly three, of pursuing business goals. Further, it is possible, but not demonstrated in the data in this report, that all three types can have top producers. Reflection on the field work showed that farmers with large, modern and well-run farms, along with new homes, occurred in each of the three types. Describing some farmers as efficient or business-like in contrast to those who are not, as some in the literature do, obscures how farmers with family and lifestyle goals can still be top producers. In our way of seeing farmers, there are three styles of management, each of which has successful and less-successful exponents in economic terms.

A final general point is that some studies of management style describe one type who is best equipped to survive in the long run. Our results suggest that more than one management style is capable of adapting to change and surviving in the long term. Any of our three types might survive or not depending on the circumstances. Both the Dedicated Producer and the Flexible Strategist have the same goal of making money, which is valued

equally, but each has distinct ways of achieving this goal. (Even the Lifestyler type may have a useful strategy for surviving into the future, because he/she values the environment and may be able to sell a desirable product.) Although we do not know from our data how successful each management style is, it is possible that each is successful in achieving monetary goals.

In Chapter 1 we argued that because of the complexity of goals and the presence of business and way-of-life considerations, it was appropriate to use a method that was sensitive to how the subjects respond to their situation. This choice of approach was vindicated by the results because the three types show three distinct management responses. Each management style has distinct goals, distinct strategies, and their own criteria of assessing (subjective) success. By using a method that allowed subjects to be experts and portray to the researcher their approach to farming it was possible to describe three management styles that accurately represent the farmers' viewpoints.

One advantage of the method is that it allowed for equal input from both farm men and women. The results of this study go further than others in this area because they include the goals of farm women. The three types each have female constituents and are not the formulations of men only. Our results show this fact in the Flexible Strategist type, on which a number of women loaded with high scores. This type illustrates balance between home and family and on and off-farm activity in ways that must be typical for many farm women. But this is not just a "women's type" because men loaded significantly on the factor too.

Another important element of the results is the finding that for each type, common words have subtle distinctions in meaning. For example, it is likely that all subjects would say that their family was important to their farming. But for the Dedicated Producer this is more likely to mean the family should be involved on the farm. For the Flexible Strategist it would mean enjoying off-farm pursuits with family, and for the Lifestyler, it would mean working on the farm to enjoy the lifestyle. Hard work to the Dedicated Producer means production-oriented activity to achieve quality product and status; to the Flexible Strategist it means careful planning and marketing; to the Lifestyler it means farm work as an enjoyable pastime.

4.3 Future Research

There are two main directions for future research. The first is to consider the validity of the three types for other areas in New Zealand. Q studies using the same 45 statements could be undertaken in other places where one would expect different farming styles to exist. Results would help build confidence that if similar results were obtained the three management styles were fundamental to New Zealand primary production. The second main direction is to turn to quantitative survey research and assess the relative proportions of the types in the farming population. The key contrasting and high-scoring statements could be used to develop instruments for classifying people into

general types. Such survey research could also collect data on practices and attitudes not examined in this study in order to extend our understanding of each type. For example, data on financial practices could illustrate how farm business was done, or data on family goals could show what involvement family members had in the business and social life of farms. Further, farmers could be asked for their opinions about management style in order to see if farmers had a uniform view of the "good" farmer.

Another area of research is further analyses of the existing data base. It would be possible to break our group of respondents into different sub groups to examine, for example, what affect gender has on management style. In this study both men and women constitute each factor or type. It is possible that all men in one type may emphasise different features of that type and these distinctions are obscured in the combined factor. Separate analyses would show how men and women, while fitting a given factor, each emphasise different aspects. Finally, it would be useful to gather further data on the existing subjects in this study in order to evaluate our suggestion that top farmers occur in each of the three types. Interviews could yield data to describe the farm and farm performance in order to gauge the performance of the farmer in normative terms.

REFERENCES

- Barque, M.B. 1988), "The Division of Labour and Decision-Making in Farming Couples : Power and Negotiation". *Sociologia Ruralis* 28(4):271-292.
- Bennett, J.W. (1980) "Agricultural Decision Making: Anthropological Contributions to Rural Development". P. Bartlett (ed.) New York: Academic Press.
- Brown, M.; Larson, O. (1979) "Successful Black Farmers' Factors in their Achievement". *Rural Sociology* 44(1), 153-175.
- Brown, S.R. (1980) "Political Subjectivity: Applications of Q Methodology in Political Science". New Haven : Yale University Press.
- Cary, J.W.; Holmes, W.E. (1982) "Relationships Among Farmers Goals and Farm Adjustment Strategies: Some Empirics of a Multidimensional Approach. *Australian Journal of Agricultural Economics* 26:114-130.
- Coughenour, C. Milton; Swanson, Louis E. (1988) "Rewards, Values and Satisfaction with Farm Work". *Rural Sociology*: 53(4):442-459.
- Crump, D.K. (1966) "Studies in the Economic Behaviour of Farm Families". Lincoln College, M.Agr. Sci. Thesis: 152pp.
- Fairweather, John (1987) "Farmers' Responses to Economic Restructuring; Preliminary Analysis of Survey Data". A.E.R.U. Research Report No. 187, Lincoln University.
- Fairweather, J.R. (1990), "The Q Method and Subjective Perception of Food in the 1990s". A.E.R.U. Research Report No.204, Lincoln University.
- Gasson, Ruth (1973) "Goals and Values of Farmers". *Journal of Agricultural Economics* 24(3):521-542.
- Gasson, Ruth (1974) "Socioeconomic Status and Orientation to Work: The Case of Farmers". *Sociologia Ruralis* 14(3):127-141.
- Gasson, R.; Crow, G.; Errington, A.; Hutson, J. Marsden, T.; Winter, D.M. (1988) "The Farm as a Family Business: A Review". *Journal of Agricultural Economics* 39(1):1-41.
- Gasson, Ruth (1988) "The Economics of Part-Time Farming". Harlow, Essex: Longman Scientific and Technical.
- Gladwin, C.H. (1989) "Ethnographic Decision Tree Modelling". Newbury Park: Sage.

- Gladwin, C.H. (1989) "Indigenous Knowledge Systems, The Cognitive Revolution, Decision Making, and Agriculture". *Agriculture and Human Values* 6(3):32-41.
- Greer, J.P. (1982) "Motivation and Other Factors Influencing the Adoption of Practices by Sheep Farmers in Oxford County, New Zealand". Unpublished M.Agr.Sci. Thesis, Lincoln College.
- Grudnizki, B.; Passmore, E. & Keating, N. (1988) "Making it in Tough Times". A research report on the continuity of the farm business in times of economic downturn. Alberta Agriculture. Region III.
- Harper, Wilmer; Eastman, Clyde (1980) "An Evaluation of Goal Hierarchies for Small Farm Operators". *American Journal of Agricultural Economics*. November:742-747.
- Hedley, M.J. (1988) "The Peasant Within: Agrarian Life in New Zealand and Canada". *Canadian Review of Sociology and Anthropology* 25(1):67-83.
- Keating, Norah (1989) "Making It in Tough Times: A Profile of the Successful Farm Operation". Paper presented to the Annual Meeting of Women of Unifarm, Red Deer, Alberta, March 16.
- Keating, N.C. (1990), "Generations in Farm Families : Transfer of the Family Farm in New Zealand" A.E.R.U. Research Report (in press) Lincoln University.
- Keating, N. & Munro, B. (Publication date 1991) "No Way to Make a Living". Chapter 5, *Farm Success*. Edmonton, Canada.
- Kerridge, K.W. (1978) "Value Orientations and Farmer Behaviour - An Exploratory Study". *Quarterly Review of Agricultural Economics* 31(1):61-72.
- Lockhart, J.C. (1989) "Results of a Survey of Planning and Financial Management on Three Farm Types in New Zealand". Paper presented at the Fourteenth Annual Conference of the New Zealand Branch of the Australian Agricultural Economics Society.
- McKeown, B., Thomas, D. (1988) "Q Methodology". Newbury Park: Sage Publications.
- Mooney, Patrick, H. (1986) "Farming, Rationality and Craftship: Beyond X-Efficiency". *Agriculture and Human Values* 54-58.
- Moran, W. (1988) "The Farm Equity Cycle and Enterprise Choice". *Geographical Analysis* 20(1):84-91.
- Olsson, Rolf (1988) "Management for Success in Modern Agriculture". *European Review of Agricultural Economics* 15 (2.3):239-259.

- Pemberton, C.A.; Craddock, W.J. (1979) "Goals and Aspirations: Effects on Income Levels of Farmers in the Carmen Region of Manitoba". *Canadian Journal of Agricultural Economics* 27(1):23-32.
- Perrin, Noel (1983) "Third Person Rural: Further Essays of a Sometime Farmer". David R. Godine Publisher Inc: Boston.
- Ploeg, van der; Jan Douwe, van der (1985) "Patterns of Farming Logic, Structuration of Labour and Impact of Externalization: Changing Dairy Farming in Northern Italy". *Sociologia Ruralis* 25(3/4):5-25.
- Pomeroy, Ann (1986) "A Sociological Analysis of Structural Change in Pastoral Farming in New Zealand". Unpublished Ph.D. Thesis, Department of Sociology, University of Essex.
- Pomeroy, Ann (1987) "The 'Rural Crisis' in Perspective: Family Farming in Australia and New Zealand". Paper presented at SAANZ Conference, University of New South Wales, Sydney, 14-17 July.
- Rhodes, R. "Farm: A Year in the Life of an American Farmer." Simon and Schuster.
- Salamon, S. (1987) "Ethnic Determinants of Farm Community Character". In M. Chibnik (ed.) *Farmwork and Fieldwork: American Agriculture in Anthropological Perspective*. Ithaca N.Y. Cornell University Press.
- Salamon, Sonya; Davis-Brown, Karen (1986) "Middle-Range Farmers Persisting Through the Agricultural Crisis". *Rural Sociology* 54(4):503-512.
- Scales, G.H. (1990) "Dryland Farm Survey: A Survey of Financial Performance and Brought Management Strategies Used by South Island East Coast Farmers". MAF, Rural Policy Unit, Wellington.
- Stricklin, M. (1990), "p.c.q. version 2.0 Factor Analysis Programmes for Q-Technique". c/- Michael Stricklin, 3234 South 17th Street, Lincoln, Nebraska 68502, U.S.A.
- Thornton, D.S. (1962) "Techniques of Inquiry in the Field of Decision Making". *The Farm Economist* 10(2):71-86.
- Whatmore, Sarah; Munton, Richard; Little, Jo; Marsden, Terry (1987a) "Towards a Typology of Farm Businesses in Contemporary British Agriculture". *Sociologia Ruralis* 27(1)21-37.
- Whatmore, Sarah; Munton, Richard, Little, Jo; Marsden, Terry (1987b) "Interpreting a Relational Tupology of Farm Businesses in Southern England". *Sociologia Ruralis* 27(2/3)101-122.

APPENDIX 1

ORIGINAL STATEMENTS AND FIRST SELECTION OF STATEMENTS

- Notes:
1. The statements marked with an asterisk at the bottom of each set are the selected statements.
 2. The number in parenthesis after each statement indicates its source as follows:
 - (1) Keating and Little, 1990
 - (2) Farm Management Group
 - (3) Fairweather, 1987
 - (4) Keating, 1989
 - (5) Themes from literature.

Business Goals

Easy Care Farm

1. Have an 'easy-care' farm. (1)
 2. To simplify the farm. (2)
 3. Have a well organized farm so you can take time off. (1)
 4. Develop the farm so it runs itself. (1)
 5. Not to have to work all the time. (1)
 6. To reduce my work load and improve my quality of life. (2)
 7. Reduce work load.
 8. Some opportunity for leisure. (3)
 9. Get out of farming while you're still young enough to do something else. (1)
 10. Retire at 55. (1)
- *1. My goal is to have an easy care farm that runs itself.
- *2. My goal is to reduce my workload and improve my quality of life.

Marketing

1. You can exploit the advantages - market your own products. (4)
2. I have taken steps to control the marketing of my produce because I want to insure I receive the est possible return from my produce. (5)
3. Proper marketing of farm products is important but there is a limit to the amount of fiddling one can do to improve returns. (5)

4. It is important to pay close attention to market prices. (3)
 5. Farmers do not have a lot of control over input and output prices, and this is something that needs to be changed. (5)
 6. Farmers do not have a lot of control over input and output prices, so I will try as hard as I can to work with the situation. (5)
-
- *1. It is important to me to have as much personal control as possible over the marketing of my farm produce.
 - *2. It is important to pay close attention to market prices.

Independence

1. As a farmer I try to minimise my dependence on other businesses. (3)
 2. To enjoy the freedom of being self-employed. (2)
 3. Be self employed. (1)
 4. A job as one's own boss. (3)
 5. Be the boss. (1)
 6. Run the farm without outside help. (1)
 7. Manage without hired help. (1)
 8. There are times when it pays to get work done by expert contractors. (3)
 9. A farmer must try to maintain personal control over all work. (3)
 10. To get a job. (1)
 11. Have your own income. (1)
-
- *1. To enjoy the freedom of being self-employed.
 - *2. A farmer must try to maintain control over farm work. I try to run my farm with minimal outside help.
 - *3. As a farmer I try to minimise my dependence on other businesses.

Financial Security

1. To make ends meet. (1)
2. Have some money for personal expenditures. (1)
3. To have a comfortable life on the farm. (1)
4. Have a comfortable life. (1)
5. To live comfortably. (1)
6. Accumulate money for the future. (1)
7. To provide for your retirement. (1)
8. Have enough money for a comfortable retirement. (1)

9. To have a comfortable retirement living. (2)
 10. Farm management group to increase the net worth of the farm. (2).
 11. A means of accumulating capital. (3)
 12. Like it's important to us that we own our land. (Okay so that would be like a personal indicator of success). Yes, that's what makes me feel secure anyway.
-
- *1. An important goal to me is to have enough money for a comfortable retirement.
 - *2. Severely cutting back on personal expenses to keep the farm going is just not worth it - we want to live comfortably.
 - *3. Freehold ownership of land is an important goal.

Risk Control

1. Taking a business risk is justified so long as you have thought it through very carefully and have a good business plan. I will try something new if it is good for my business. (5)
 2. I will take a risk if the potential benefit to the farm is there. There are times when it is necessary to innovate in order to do well. (5)
 3. To protect the farm from financial risk. (2)
 4. You'd have to know whether you're going to make a dollar at that before you even get into it. (4)
 5. My farm and business is good just the way it is. The secret to success is to avoid taking any risk. (5)
 6. You can't always control farm performance so I adapt to the situation and don't take too many risks. (5)
 7. There is no point in experimenting with every new idea or taking on new methods if you do not have the experience. I am an expert in my area and 'a bird in the hand is worth two in the bush'. (5)
 8. To survive the long term in farming requires that you keep control over all of the key factors of production: land, labour and capital. (5)
 9. Most of my farming goals I will achieve or have already achieved. (5)
 10. I can control the performance of my farm and intend to do so to the best of my ability - even if it means taking a few risks. (5)
 11. Some farming goals are hard to attain ... (5)
-
- *1. I will take a risk if the potential benefit to the farm is there - there are times when I will take a chance in order to do well.

- *2. My farming business is good just the way it is - the secret to success is to avoid taking any risk.
- *3. Farm management is really the process of adjusting to many changing circumstances that are often difficult to control.
- *4. A good farm manager has control over his farm and is not at the mercy of outside forces.

Development Activity

- 1. It is important to me to increase the size of my farm operation. (3)
 - 2. Increasing production on my existing farm area is an important goal. (3)
 - 3. I guess I've enjoyed it and I guess I've seen some progress as well, farm progress. It hasn't been a dead end street where we kind of had to hold our own and stayed dormant for a period of time but we've seen some progress. (4)
 - 4. To work hard developing the farm. (2)
 - 5. Improve the farm. (1)
 - 6. Hand over farm in better condition than when you got it. (1)
 - 7. (Would a balance sheet tell you if a farm was successful?) Not entirely. No. I could inherit this whole thing and have a totally clear balance sheet, but that doesn't mean that I might not drive it into the ground. (4)
 - 8. Our farm is a marginal unit and there is no point developing it. (5)
 - 9. Expanding the farm operation is very important. I will look to buying land or a related business or diversify if I can in order to accumulate profit and reinvest in the business. (5)
 - 10. Our farm is well established now and doesn't need a lot of new investment to keep it going. (5)
 - 11. Our farm is established now but we are developing it further and reinvesting in significant or new activities. (5)
 - 12. Diversify. (1)
 - 13. Our farm is a marginal unit and we are busy diversifying in order to build up and pay off debts. (5)
-
- *1. My goal is to hand over the farm in better condition than when I got it.
 - *2. It is important to me to keep on developing my farm.
 - *3. I'm satisfied with the present level of development of my farm and do not intend to develop it further.
 - *4. Increasing production on my existing farm area is an important goal.
 - *5. It is important to me to increase the size of my farm operation.

Debt

1. Success is lack of debt or small debt. (4)
 2. To have little or no debt. (4)
 3. Reduce debt.
 4. Economic sufficiency where you don't have an awful lot of loans. People know if they are paying any amount of debts they are going to be in big trouble. They have to be because there's just not the dollars there to support a big debt load. (4)
 5. Indicators of success. I guess if you really came down to the crunch right now, an indicator of success would be, in today's agricultural climate a lack of debt. The people that are carrying a debt load, aren't able to maintain their present or even their past performance, they're just going down and down and down. (4)
 6. (Well then, let's look at debt as an indicator of success. Do you feel that a lack of debt indicates success?) Yes, definitely. Or very small debt. But anybody that is currently really in debt is really in trouble. Because there certainly isn't the income right now to offset it. (So in terms of the business, just a lack of debt would be one sign). Yes, that's one. (4)
 7. Well, it's a pretty good feeling when you can go and buy something and know you don't owe anything for it after you bring it home. (4)
 8. To own land. (1)
- *1. My goal is to have few debts, and to have my land mortgage free.

Farm is a Business

1. Farm income is best improved by decreasing total cost of production and responding to changed economic conditions. (3)
2. Planning and financial management are the most significant parts of running a farm. (3)
3. Farming is essentially a business operation. (3)
4. To have a successful business. (1)
5. Run a good business. (1)
6. At any time I have a good idea of the state of farm. (2)
7. Successful farming requires clear economic goals, not merely getting by. (5)
8. Today's farm manager is an entrepreneur who plans, formulates goals, and runs the farm as a business. (5)
9. To maximise off-farm assets. (1)
10. To have the best quality stock. (1)
11. To have high quality stock. (1)

12. Farm income is best improved by improving production per labour unit and by skilful and knowledgeable management. (3)
 13. Farm income is best obtained by careful production, coordinating all tasks, and good management to increase production. Production and husbandry are what makes for successful farming. (5)
 14. Efficient and properly executed farm work out on the farm is the most significant part of running a farm. (3)
 15. To maximise profit per hectare. (1)
 16. To have a high net profit. (1)
 17. To have a high gross income. (1)
 18. To maximise my disposable income. (1)
 19. A source of income. (3)
 20. I farm to make money. (1)
-
- *1. To run the farm as a business, with clear goals, and close attention to my cash flow position.
 - *2. My goal is to run an efficient farm through sound planning and financial management.
 - *3. My goal is to improve farm income by decreasing production costs and responding to changing economic conditions.
 - *4. I farm to make money.
 - *5. My goal is to diversify my assets by having off-farm investments.
 - *6. My goal is to have the best quality livestock or plants - good husbandry is the key to business success.
 - *7. Efficient and properly executed farm work out on the farm is the most significant part of running the farm.

Family Goals

Dergenerational Relationships

1. To have harmonious intergenerational relationships. (1)
 2. To have good father - son relationship. (1)
 3. Have your own home. Don't live with in-laws. (1)
 4. Have a good relationship with children. (1)
-
- *1. Cooperation among family members is an important ingredient of farm success : it is important to build good working relationships.

Succession

1. Have someone in the family on the farm. (1)
 2. To have a child go farming. (1)
 3. Keep the land in the family. (1)
 4. Family continuity on the land. (1)
 5. Family continuity of the farm. (1)
 6. Continuity of the farm. (1)
 7. Keep farm in the family. (1)
 8. To have my children take over the farm. (2)
 9. Keep the business in the family. (1)
 10. Keep farm as the family centre. (1)
 11. Not to have children take over the farm. (1)
 12. Take over the family farm. (1)
 13. To have either son or daughter take over the farm. (1)
 14. Have child carry on the farm. (1)
 15. Oldest son to be the farmer. (1)
 16. Have son take over the farm. (1)
 17. Help son get started in farming. (1)
 18. To set children up in farming or something else. (1)
 19. Take over the farm before you get too old. (1)
 20. The farming life for children and grandchildren. (1)
 21. See your son married to someone who will work along with him. (1)
 22. To have all interested children go farming. (1)
 23. Less financial pressure on children. (1)
 24. Let son take over the business and don't interfere. (1)
 25. Farming may not be a good career for our sons or daughters, and if the economic downturn continues I would encourage them to consider alternative careers. (5)
 26. Farming is always a career option for our sons or daughters, regardless of the economic climate. (5)
 27. Give children the opportunity to go farming if they want to. (1)
 28. Treat the children fairly. (1)
 29. Be fair to the children. (1)
 30. Be fair to all the children. (1)
 31. To treat everyone fairly. (1)
-
- *1. We want to keep the farm in the family and to pass it on to the next generation.
 - *2. To insure children get an equal share of family assets.
 - *3. To give the children the opportunity to go farming if they want to.
 - *4. My goal is to farm as long as I want, and not to have to be limited by helping a son go farming.

Independence from Parents

1. Run the farm differently than your father. (1)
2. To make the farm their's. (1)
3. To take on this farm. (1)

4. Farm without dad. (1)
5. Be free of dad's influence. (1)
6. Be free of parent's influence. (1)
7. Be independent of your parents. (1)

8. To make the house your own. (1)

- *1. To be free of parents influence and run the farm the way I want.
- *2. To be free of parents influence and change the homestead to make it my own.

Goals for Children

1. Education or travel are not really all that important when it comes to running our farm. Our children know they always have a place on the farm. (5)
2. Send children to boarding school. (1)
3. To educate the children at a good school. (2)

4. Do other things before going farming. (1)
5. We encourage our children to go away for education or travel and then let them decide if they want to continue in farming. (5)
6. Have other qualifications in addition to farming. (1)
7. To have children trained in another occupation. (1)
8. To have children develop a professional qualification. (1)
9. To encourage my children to seek alternatives to farming. (2)
10. Let children decide what they want to do in life. (1)
11. Have children do what they want. (1)
12. Encourage children to do anything the want. (1)

13. Raise children successfully. (1)

- *1. To educate our children at a good school.
- *2. To encourage our children to go away for education or travel and then let them decide if they want to go farming.
- *3. To encourage our children to seek alternatives to farming.

Role of Farm Men and Women

1. Be part of the farm labour force. (1)
2. For women to do farm work. (1)
3. To work on the farm. (1)
4. Be involved in farm work. (1)
5. Be included in work on the farm. (1)
6. Be a farm worker. (1)
7. (Wife) to work on the farm. (1)

8. Husband and wife share the work on the farm. (1)

9. Farming today needs both men and women: each can make a valuable contribution. (5)
10. Farming today still is really a man's job: women help but the responsibilities fall on a man's shoulders. (5)

11. Have one major decision maker on the farm. (1)
12. Be involved in farm decisions. (1)
13. Be part of decision making. (1)
14. Make decisions jointly. (1)
15. Know how the farm's run. (1)
16. Take a part in the farm. (1)

17. To develop something together. (1)
18. Work closely with your spouse. (1)

19. To be able to do more farm work. (1)
20. Be able to help more on the farm. (1)

21. Be a legal partner in the business. (1)
22. To be an equal working partner. (1)
23. Make wife a partner. (1)
24. Become a partner. (1)
25. To be an active partner. (1)
26. To be in partnership with husband. (1)
27. Be a partner in the business. (1)
28. Keep the household running smoothly. (1)

- *1. My goal is to share farm work and farm decisions with my spouse.
- *2. My goal is to be a legal partner in the farm.
- *3. My goal is to achieve a smoothly running household.

Lifestyle Goals

Outside Interests

1. Have outside interests. (1)
 2. Develop interests outside the farm. (1)
 3. Have other interests beside farming. (1)
 4. Have something to fall back on if you can't continue to farm. (1)
 5. To be involved in lots of activities. (1)
 6. To be involved in community organisations. (2)
 7. To have travelled. (1)
 8. To enjoy my hobbies. (2)
 9. To do things together as a couple. (1)
 10. Communicate, share interests with spouse. (1)
 11. Take time to be with your children. (1)
 12. Spending time with the kids. (4)
- *1. To keep and maintain interests outside the farm.
- *2. Farming is one thing, but it is important to spend time with my family.

Balance/Lifestyle

1. The economic still has to be given priority. (4)
2. You have to separate your personal happiness or your personal success from your business success because you can't go up and down with the farm. (4)
3. Farming for profit is important but personal satisfaction and family needs are also important and I farm to both profit and lifestyle. (5)
4. (Would you agree then, that it's a lifestyle kind of thing, as well as a business, or more so than a business?) Half and half. (Do these things every compete?) No, I don't think so. (4)
5. There's different success. Different types of success too, I guess there's personal success and there's business success. These two do meet. (4)
6. It can be your business goal to stay on budget this year and cut back so much from your loan or whatever. So you would make it a personal budget to stay on budget for myself for the house, so it would help N so it helps the farm. I suppose that's a meeting. (4)
7. Balancing farm and household needs is a constant and difficult aspect to farming. (5)

8. A lot of people put too much emphasis on the business end of farming, I think. I think it's a lifestyle, as much as it is the business. (You've got to enjoy it?) Yes, either you are going to be able to maintain the pace or you're not. (4)
9. My personal success and my family, I guess what it boils down to is more important than financial success, especially like the decision that I make this spring with hiring a person, even though it was going to affect in our cash flow situation. My health was worth more than the nice cash flow situation. My health was worth more than the nice cash flow this year, really. (4)
10. Business goals take priority over household needs. (5)
11. You can not be at your goals but still be successful. I suppose this farm isn't important enough to mean that I'm going to let it drive me crazy for one thing. And that relates back to taking time off and if I get to the point where it's going to be more than I can handle, I'm prepared to make some pretty major adjustments. (4)
12. I'm not going to wait till I'm retired to enjoy my spare time either. I've got today and I can do what I want to do today. I might not have tomorrow. So I'm going to enjoy life now, and even though our farm is a living and a source of income so that we can enjoy life, it's not that important to me that I'm going to let it run my life. (4)
13. I make money so that I can farm. (5)
14. Today's farm manager continues to combine family and business goals to carve out a suitable rural lifestyle. (5)
15. Have a good way of life. (1)
16. To enjoy life. (1)
17. Have an enjoyable life. (1)
18. Just being happy with yourself. (4)
19. (What do you mean) by personal success? I guess being happy. (4)
20. The way I feel is the strongest indicator. My mental energy and my physical energy.
21. Be in farming to enjoy the way of life. (1)
22. Enjoy farm lifestyle. (1)
23. Live the farming life. (1)
24. Farming as a lifestyle. (1)
25. A way of life. (3)
26. Get back to farming to do what you enjoy. (1)
27. Liking what you are doing. (4)
28. Be happy in what you are doing.
29. A job that offers fulfilment and/or satisfaction.
30. There is a lot of, I suppose, job satisfaction with things that you do. We made a good living at farming. We've certainly done well. But on the other hand, when you analyze it, you'd say if you had that kind of money, put it in the bank and you would have done even . (So what is it then). I guess probably lifestyle to a degree.
31. A means of providing job opportunities for ones family. (3)

32. To work with stock. (2)
33. Have animals around you. (1)

- *1. A lot of people put too much emphasis on the business end of farming: it is a lifestyle as much as a business.
- *2. Business goals must take priority over household needs.
- *3. It is important to me to enjoy life now: you shouldn't let your farm rule your life.
- *4. I make money so that I can farm.
- *5. Farming can give job satisfaction like no other occupation.
- *6. One virtue of farming is that you can have your family working alongside you.

Country Living

1. To have space and privacy. (2)
 2. Be out in the fresh air. (1)
 3. An outdoor life close to nature. (3)
 4. I think success for our farm that you can work hard and you know, spend a lot of hours there, but being successful too is making sure you take family time. (4)
 5. To work hard on the land. (2)
 6. There is a non-financial reward in doing farm work well. (3)
 7. Farm work is essentially a craft. (3)
 8. To be on the land. (1)
 9. To live in a rural environment. (2)
 10. Live in rural area. (1)
 11. Live in the country. (1)
 12. Live in the country. (1)
 13. Be in the country. (1)
 14. To get back into the country. (1)
 15. To raise my children in the country. (2)
 16. Raise your children in the country. (1)
 17. Have your children around you. (1)
 18. Have the best of both worlds (urban and rural). (1)
- *1. To enjoy the rewards of doing farm work well.
 - *2. To live the outdoor life close to nature.

Status

1. To have status in the community. (1)
 2. A standing in the community. (3)
 3. To be accepted in the community. (1)
 4. Establish your identity by being a farmer. (1)
 5. To me, independence is an important aspect of farming. Recognition and esteem for maintaining a good farming life is an important aspect of farming. (5)
 6. I think more personal success or whatever, I mean we have people that are not necessarily big farmers, or have a lot of money or anything that we probably respect their opinions more than some who look successful. I would hope that they don't just look at what you bought and think that your advice is good. (4)
 7. (You said before that you talked to other people, get information before you make a decision. Do people ever call you and ask for your pearls of wisdom? The last few years, yes. (That would be an indicator of success to you?) Well, it certainly would be an accomplishment, I guess. (4)
- *1. It is important to me to be recognised as a good farmer in my community.

Later Life

1. To stay within reasonable distance of friends and family. (1)
2. Be close to children and grandchildren. (1)
3. To stay in the country. (1)
4. To stay in the homestead. (1)
5. Stay on the farm. (1)
6. To continue working. (1)
7. To be able to farm as long as you want. (1)
8. Be active as long as you can. (1)
9. Work into his 80s.
10. Stay fit and be productive until your 80s. (1)
11. Stay fit. (1)
12. Maintain an active interest in the farm all your life. (1)
13. Keep an active interest in the farm. (1)
14. Maintain your interest in the farm even after retirement. (1)
15. Keep some land to farm after retirement. (1)
16. Stay involved after transfer. (1)
17. Keep busy in retirement. (1)

- *1. To stay on the farm and continue living in the countryside.
- *2. To farm as long as I want, and keep active and fit as long as I can.
- *3. To maintain some interest and involvement in the farm, even after retirement, and keep active and fit as long as I can.
- *4. To stay within reasonable distance of friends and family.

Purpose/Challenge

- 1. Continue to find new challenge. (1)
- 2. To have new challenges. (1)
- 3. Be challenged, stimulated. (1)
- 4. Be challenged.

- 5. To be needed, have a purpose. (1)
- 6. To feel useful. (1)
- 7. To have a purpose. (1)

- 8. Make a contribution to the farm. (1)
- 9. To contribute to the farm. (1)
- 10. Be productive, enjoy your work. (1)
- 11. To achieve something. (1)

- 12. To avoid boredom. (2)
- 13. Avoid boredom. (1)

- 14. To get a "buzz" out of my work. (2)
- 15. Have stimulating activities. (1)
- 16. Mental stimulation. (1)

- 17. To be the best farmer I can be. (2)

- 18. Other businesses farm financially would look attractive but you have that other side of the thing - what are you going to do with your life. You have to feel that there is some kind of useful thing to your life and just to bum around, it's really not all that appealing after you do that for a few months. (4)

- *1. To be challenged and stimulated.
- *2. To be needed; to have a purpose.
- *3. To feel like I'm contributing to the farm and achieving something.
- *4. To avoid boredom and get a buzz out of my work.
- *5. To be the best farmer I can be.

Modesty/Conspicuous/Aesthetic/Conservation

1. The good farmer accepts his or her limits and the limits of the farm. Moderate yields, modest improvements, slow change and old equipment suit me fine. (5)
2. (So there it is. Okay so you can take a balance sheet and a string of John Deere equipment and a big house or whatever, and say that those are all visible indicators.) I suppose they are and yet they are probably the least important thing to us. (4)
3. I think a lot of people are in big trouble because going back to the keep up with the neighbour thing, keep up with the Jones' attitude. (4)
4. I know some people, that if they don't live in a real nice house, they feel like they're failures. (4)
5. I don't think a new house sitting on a place is a sign of necessarily being successful either. That new house could have been the mistake that is going to bury the farm too. (4)
6. Success is not in appearances. Can bury too much cash in a car, house. (4)
7. Just because a neighbour drives a big tractor, doesn't mean to say it's paid for. (4)
8. To have the newest/best equipment. (2)
9. To have a holiday bach and/or boat. (2)
10. To have a large farm. (2)
11. (A successful farm doesn't have) a lot of piles and piles of junk in the yard. We just cleaned ours up. We knew you were coming so we cleaned her up. (4)
12. I think maybe having your farm kept up is another one. Like not letting things fall into disrepair. Same with the machinery, more or less keeping your machinery in good repair type of thing. I would say those were signs that your farm is successful. (4)
13. To have a beautiful farm. (2)
14. Nature conservation is important to me, and rank it alongside my income goals. (5)
15. Nature conservation is one thing, but I'll not sacrifice farm income for it. (5)
- *1. The good farmer keeps things in perspective - moderate yields, modest improvements and old equipment suit me fine.
- *2. If you're successful, why not have a nice house and new equipment.
- *3. Farmers have always been concerned about the environment - we don't need outsiders telling us what to do.
- *4. I am very concerned about the environment and I am doing what I can to improve the situation on my farm.

APPENDIX 2

LIST OF Q SORT STATEMENTS AND SCORES FOR EACH TYPE

	TYPE		
	A	B	C
BUSINESS			
* easy care			
1. For me in my situation, there is no such thing as an easy care farm that runs itself.	3	1	2
2. My goal is to reduce my workload and improve my quality of life.	-2	4	0
* marketing			
3. Attention to marketing is crucially important to the success of my farm. There is no point in production without careful marketing.	2	5	3
4. I need up-to-the minute and reliable information in order to make informed decisions.	1	3	1
* independence			
5. Being self-employed doesn't really give me much freedom.	-1	-3	-1
6. A farmer must maintain control over farm work. I run my farm with minimal outside help.	0	-2	0
* financial security			
7. I will make great sacrifices today in order to have enough money for a comfortable retirement.	1	-1	-3
8. Severely cutting back on personal expenses to keep the farm going is just not worth it. I want to live comfortably now.	-3	1	-1
* risk/control			
9. The secret to success is to avoid taking risks.	-2	-1	-2

- | | | | | |
|-----|---|----|----|----|
| 10. | I'll take a risk on the things that will make the most money. | -1 | -2 | -1 |
| 11. | Today's farmer is at the mercy of outside forces so the best you can do is to adjust to the situation. | 1 | -4 | 2 |
| | * development | | | |
| 12. | I am satisfied with the present level of development on my farm and I do not intend to develop it further. | -4 | -3 | -3 |
| | * debt | | | |
| 13. | Today's farmer has to accept debt and work with it. | 2 | -2 | 0 |
| 14. | Ownership of land is greatly overrated these days. You don't have to own it to achieve your farm goals. | -1 | 0 | -2 |
| | * business | | | |
| 15. | Planning and financial management are the most important parts of running the farm. | 4 | 3 | 1 |
| 16. | I farm to make money. | 1 | 1 | -2 |
| 17. | My goal is to diversify my assets by having on-farm and off-farm investments. | 0 | 4 | 0 |
| 18. | My goal is to have the best quality livestock/fruit/crops. Good husbandry is the key to business success. | 5 | 0 | 0 |
| 19. | Efficient and properly executed farm work out on the farm is the most significant part of running the farm. | 3 | 2 | -1 |
| 20. | As a farmer I always have to bear in mind how any decision I make will affect my farm and my family. | 3 | 4 | 4 |

FAMILY*** intergenerational relations**

- | | | | | |
|-----|---|---|----|---|
| 21. | Parents and children farming together must develop good working relationships in order to manage the farm successfully. | 1 | 0 | 3 |
| 22. | When the time comes I want all my children to get an equal share of the family assets. | 2 | -1 | 3 |

23.	Farmers shouldn't feel obliged to give their children the opportunity to go farming.	-1	3	1
	* independence from parents			
24.	It is important to be free of parents' influence and be able to make my own decisions for the farm.	0	1	0
	* goals for children			
25.	There is no need to spend a lot of money sending children to boarding schools.	0	-1	0
26.	Farm couples should not be equal partners in farm work and decision-making.	-4	-2	-4
27.	Farm couples should not be legal partners in the farm business.	-4	-4	-3
28.	I like to have an easy-care household	-1	1	1
	LIFESTYLE			
	* outside interests			
29.	A good farmer concentrates her/his energies on the farm and isn't sidetracked by interests or activities outside the farm.	-2	-5	-4
30.	Farm tasks must come before family time.	-3	-4	-4
	* balance/lifestyle			
31.	A lot of people put too much emphasis on the business end of farming: it is a lifestyle as much as a business.	-1	-2	3
32.	The best part of farming is having your family working alongside you.	3	-1	4
	* country living			
33.	Farm work needs to be done but there's no great joy in it.	-5	-1	-3
34.	Working close to nature is difficult and unrewarding.	-3	-3	-5
	* status			
35.	I want to be seen as a good farmer in my community.	2	0	-1

*** later life**

- | | | | | |
|-----|---|----|---|----|
| 36. | I won't always be a farmer and I look forward to a change in activity later in my life. | -3 | 0 | -2 |
|-----|---|----|---|----|

*** purpose/challenge**

- | | | | | |
|-----|--|---|---|----|
| 37. | I need to feel that I am contributing to the farm and achieving something. | 4 | 2 | 2 |
| 38. | The key to enjoying farming is to get a "buzz" out of your work. | 2 | 2 | 2 |
| 39. | I want to be the best farmer I can be. | 4 | 2 | -2 |

*** aesthetic/modesty/conspicuous/conservation**

- | | | | | |
|-----|--|---|---|---|
| 40. | There's no need to have the latest gear. Old equipment suits me fine. | 0 | 0 | 2 |
| 41. | If you have done well, why not have a nice house? | 0 | 1 | 1 |
| 42. | I am doing everything I can to be environmentally aware and conserve the land I farm. | 0 | 0 | 4 |
| 43. | Farmers today must be sensitive to the environment by reducing the use of agricultural chemicals on their farms. | 1 | 3 | 5 |

*** urban/rural**

- | | | | | |
|-----|---|----|----|----|
| 44. | I want to live near enough to the city to take advantage of theatres, libraries, shopping, education etc. | -2 | 2 | -1 |
| 45. | Working on my farm is a great stress reliever. | -2 | -3 | 1 |

RESEARCH REPORT

- 177 **Optimal Pricing and Promotion for Agricultural Marketing Agencies**, S.K. Martin, L. Young, A.C. Zwart, 1986.
- 178 **A Contractual Framework for Evaluating Agricultural and Horticultural Marketing Channels**, S.K. Martin, A.C. Zwart, 1986.
- 179 **An Integrated Framework for Analysing Agricultural Marketing Issues**, S.K. Martin, A.N. Rae, A.C. Zwart, 1986.
- 180 **Labour Mobility Between New Zealand and Australia**, R.L. St Hill, 1986.
- 181 **Survey of New Zealand Farmer Intentions and Opinions, November 1985-January 1986**, J.G. Pryde, P.J. McCartin, 1986.
- 182 **A Financial and Economic Survey of South Auckland Town Milk Producers and Factory Supply Dairy Farmers, 1984-85**, R.G. Moffitt, 1986.
- 183 **An Economic Survey of New Zealand Town Milk Producers, 1984-85**, R.G. Moffitt, 1986.
- 184 **An Economic Survey of NZ Wheatgrowers: Financial Analysis, 1984-85**; R.D. Lough, P.J. McCartin, 1986
- 185 **The Effect on Horticulture of Dust and Ash: Proposed Waikato Coal-Fired Power Station**, P.R. McCrea, October 1986
- 186 **A Study of the Determinants of Fattening and Grazing Farm Land Prices in New Zealand, 1962 to 1983**. P.G. Seed, R.A. Sandrey, B.D. Ward., December 1986
- 187 **Farmers' Responses to Economic Restructuring in Hurunui and Clutha Counties: Preliminary Analysis of Survey Data**. J.R. Fairweather, July 1987
- 188 **Survey of NZ Farmer Intentions and Opinions, October-December 1986**. J.G. Pryde, P.J. McCartin, July 1987.
- 189 **Economic Adjustment in New Zealand: A Developed Country Case Study of Policies and Problems**, R.G. Lattimore, July 1987.
- 190 **An Economic Survey of New Zealand Town Milk Producers 1985-86**, R.G. Moffitt, November 1987.
- 191 **The Supplementary Minimum Price Scheme: a Retrospective Analysis**. G.R. Griffith, T.P. Grundy, January 1988
- 192 **New Zealand Livestock Sector Model: 1986 Version. Volumes 1 and 2**, T.P Grundy, R.G. Lattimore, A.C. Zwart, March 1988.
- 193 **An Economic Analysis of the 1986 Deregulation of the New Zealand Egg Industry**, J.K. Gibson, April 1988.
- 194 **Assistance to the Tourist Industry**, R. Sandrey, S. Scanlan, June 1988.
- 195 **Milk Purchasing: a consumer survey in Auckland and Christchurch**, R.L. Sheppard, July 1988.
- 196 **Employment and Unemployment in Rural Southland**, J. R. Fairweather, November 1988.
- 197 **Demand for Wool by Grade**
A. C. Zwart, T. P. Grundy, November 1988
- 198 **Financial Market Liberalisation in New Zealand: an Overview**, R. L. St Hill, December 1988.
- 199 **An Economic Evaluation of Coppice Fuelwood Production for Canterbury**, J. R. Fairweather, A. A. MacIntyre, April 1989
- 200 **An Economic Evaluation of Biological Control of Rose-Grain Aphid in New Zealand**, T.P. Grundy, May 1989
- 201 **An Economic Evaluation of Biological Control of Sweet Brier**, T. P. Grundy, November 1989
- 202 **An Economic Evaluation of Biological Control of Hieracium**, T. P. Grundy, November 1989
- 203 **An Economic Evaluation of the Benefits of Research into Biological Control of Clematis Vitalba**, G. Greer, R. L. Sheppard, 1990.
- 204 **The Q Method and Subjective Perceptives of Fogd in the 1990s**, J. R. Fairweather 1990
- 205 **Management Styles of Canterbury Farmers: a study of goals and success from the farmers' point of view**. J. R. Fairweather, N. C. Keating, 1990
- 206 **Tax Shields: their implications for farm project investment, risk and return**. P. R. McCrea, T. P. Grundy, D. C. Hay, 1990
- 207 **Public Drinking and Social Organisation in Methven and Mt Somers**. J. R. Fairweather and H. Campbell, 1990.

DISCUSSION PAPERS

- 113 **Proceedings of the Rural Economy and Society Study Group Symposium on Rural Research Needs**, J.R. Fairweather (ed), September 1987.
- 114 **A Summary of the Financial Position of Canterbury Farms — mid 1987**. J.G. Pryde, November 1987.
- 115 **A Case for Removal of Tariff Protection**, R.L. St Hill, December 1987.
- 116 **Government Livestock Industry Policies: Price Stabilisation and Support**, G. Griffith, S. Martin, April 1988
- 117 **The NZ Sheepmeat Industry and the Role of the NZ Meat Producer's Board**, A. Zwart, S. Martin, March 1988
- 118 **Desirable Attributes of Computerised Financial Systems for Property Managers**, P. Nuthall, P. Oliver, April 1988
- 119 **Papers Presented at the Twelfth Annual Conference of the NZ Branch of the Australian Agricultural Economics Society**, Volumes 1 and 2, April 1988
- 120 **Challenges in Computer Systems for Farmers**, P. Nuthall, June 1988
- 121 **Papers Presented at the Thirteenth Annual Conference of the N.Z. Branch of the Australian Agricultural Economics Society**, Volumes 1 and 2, November 1988
- 122 **A Review of the Deregulation of the NZ Town Milk Industry**, R. G. Moffitt, R. L. Sheppard, November 1988.
- 123 **Do our Experts Hold the Key to Improved Farm Management?** P. L. Nuthall, May 1989
- 124 **Some Recent Changes in Rural Society in New Zealand**, J. R. Fairweather, July 1989
- 125 **Papers Presented at the Fourteenth Annual Conference of the N.Z. Branch of the Australian Agricultural Economics Society**, Volumes 1 and 2, October 1989
- 126 **Marketing Boards and Anti-Trust Policy**, E. McCann, R. G. Lattimore, 1990.
- 127 **Marketing of Agricultural and Horticultural Products — selected examples**, K. B. Nicholson, 1990

Additional copies of Research Reports, apart from complimentary copies, are available at \$20.00 each. Discussion Papers are usually \$15.00 but copies of Conference Proceedings (which are usually published as Discussion Papers) are \$20.00. Discussion Papers No.119 and 121 are \$20.00 per volume and Discussion Paper No. 109 is \$29.70.