

Studies in Rural Community

Smallholders in Canterbury: Characteristics, Motivations, Land Use and Intentions to Move

**John R. Fairweather
and
Nicola J. Robertson**

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**Agribusiness and Economics Research Unit
P O Box 84
Lincoln University
Canterbury
New Zealand**

Ph: (64) (3) 325 2811

Fax: (64) (3) 325 3679

<http://www.lincoln.ac.nz/AERU/>

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Preface

The AERU published its first report on smallholdings in Canterbury in 1993. The present report extends that research by using a random sample survey and thereby updates our understanding of this very important phenomenon. The report covers basic descriptive information, land use, general attitudes and motivation. It also compares lifestylers with farming-oriented smallholders. Results will be of interest to people involved directly in smallholding by showing them what people are doing on their land. The report will also be of interest to policy makers responding to the planning implications of the effects of the growing number of smallholdings.

Ross Cullen
Director

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Summary

Smallholders in Canterbury: Characteristics, Motivations, Land Use and Intentions to Move

John R. Fairweather and Nicola J. Robertson, AERU, PO Box 84, Lincoln University,
Canterbury, New Zealand.

Conclusions

- A survey of smallholders in Canterbury updated our knowledge of smallholding and successfully identified intentions to move.
- Many smallholders emphasised lifestyle but there was a significant group who emphasised production.
- Smallholders were unlikely to move to residential sections.

Background and Rationale

- Smallholding research needs to be updated.
- The literature suggests that there are smallfarmers who are more interested in production than are lifestylers and that the latter are increasing in number.
- There is a need to assess if it is likely that smallholders would be attracted to residential sections.

Research Objectives

- Describe the general characteristics of smallholding near Christchurch.
- Quantify the proportions of lifestylers and smallholders.
- Examine the intentions of smallholders to move from their smallholding and, if they were to move, to identify lot size preferences including residential sections.

Method

- A sample of 797 cases was randomly selected from the population of 7,723 rural properties between 0.04 and 20 hectares in the study areas defined as land within 40 kilometres from central Christchurch.
- The sample of 218 completed questionnaires was found to be unbiased.
- Analysis of data from a survey of 50 non-respondents showed that they were not significantly different from respondents.
- The revised response rate was 36 per cent.

Results

- The main motivations of smallholders were to seek peace and quiet, clean air, privacy, openness and country living.
- The most common land uses were grazing, other animals, forestry and horticulture, and gross sales over \$18,000 were received from other animals, horticulture and business activities.
- Nearly two-thirds of smallholders did not receive any income from their land but eleven per cent received over \$50,000.
- About one-half of smallholders were lifestylers, one third were smallfarmers and one tenth were farmers. The latter two groups have a serious attitude to production.
- Nearly three-quarters intended to stay on their smallholding indefinitely and 81 per cent had no intention of leaving within the next five years.

Chapter 1

Introduction, Background and Research Objectives

There has been a significant programme of New Zealand research over the last two decades on smallholdings (properties up to 20 hectares in size) and smallholders (people living on these properties). A number of topics have been examined including: planning issues, economic performance, the needs for services, and general descriptive work. However, our knowledge of smallfarmers and lifestylers, as specific subgroups of smallholders, is already six years old and needs to be updated. Further, smallholding continues to be a major feature of rural land settlement at least in terms of numbers, if not in terms of production, so it remains an important topic for research. An improved understanding of smallholding in New Zealand can be obtained by studying smallholding in Canterbury because it is one of the main regions in New Zealand which has experienced this type of development.

There is another reason for studying smallholding. There are an increasing number of rural sections being provided in Canterbury at relatively small sizes of less than one hectare. It is possible that future growth of these may reduce the overall scale of rural subdivision by attracting people who would otherwise buy smallholdings of larger size, defined as over one hectare. However, the literature to date suggests that, since smallholders value space and openness, they would be unlikely to buy smaller rural sections. Their effect on demand for rural sections will therefore be minimal and any provision of rural sections would meet an alternative demand. There is a need to confirm this expectation.

These background issues prompted the following research objectives. The main research objectives were to (1) describe the general characteristics of smallholding near Christchurch (2) to quantify the proportions of lifestylers and smallholders and (3) to examine intentions of smallholders to move from their smallholding, and, if they were to move, to identify lot size preferences. The main categories of lot type preferences were defined as: a residential section in a town or city, a rural residential section, a smaller smallholding (1-4 ha), a medium smallholding (4-10 ha), and a larger smallholding (10-20 ha).

The study area was defined to include those parts of Waimakariri and Selwyn Districts within a 40 kilometre radius of the centre of Christchurch and the Christchurch City Council area. Smallholdings were defined to include those parcels of land between 0.2 to 20 hectares in size that were in the rural areas of the three authorities. In this study area, 83 per cent of smallholdings were less than ten hectares in size (Environment Canterbury data).

This report is organised as follows. Chapter 2 updates and reviews the New Zealand literature on smallholdings. Chapter 3 describes the survey method used in this research and Chapter 4 presents the survey results. Finally, Chapter 5 discusses the results and draws a conclusion to the study.

Chapter 2

Literature Review

2.1 Introduction: An Overview of the Literature

The following review focuses on the New Zealand literature and attempts to give a thorough overview rather than an in-depth analysis. In the late 1970s smallholdings were the focus of considerable research attention in New Zealand by a variety of institutions. The Paparua County Council surveyed smallholders in 1979 and published a three-volume report (Lawn et al., N.D.). The Town and Country Planning Division of the Ministry of Works published a three-volume study of smallholdings in New Zealand (Jowet, 1976; Gardner, 1978), and the Geography Department at the University of Auckland published a four-volume study of smallholdings in the Auckland region (Moran et al., 1980).

During the 1990s there was an upsurge in literature on smallholdings from a variety of sources. These have included the University of Canterbury (Edwards, 1992; Blakie, 1996), Lincoln University (Fairweather, 1993; Fairweather, 1996; Swaffield and Fairweather, 1998; Lee, 1999), Massey University (Hunt, 1994), and the University of Otago (Hamilton, 1999). During the mid-1990s several district councils and the Ministry of Agriculture and Fisheries (MAF) examined rural subdivision and new rural residents. The Waimakariri District Council (WDC) undertook two surveys (WDC, 1994; Sparrow, 1996); MAF, Auckland Regional and Franklin District Councils commissioned another (Welsh, 1995); and Western Bay of Plenty District Council carried out two quantitative studies, the latter in conjunction with MAF (Talbot, 1996; Scarrow et al., 1996). Other publications like *Country Living* (1994; 1995) and *The Smallfarmer* (1995; 1999) have also presented relevant information. There are practical books on smallholding (Fisk, 1996; Grant and Grant, 1998), and Yerex's (1998) book on the semi-rural lifestyle. The literature culminates in an article by Grant (2000) which provides an extensive overview of the smallholding literature for the last decade.

The first part of the literature review focuses on defining smallholding and introducing some general characteristics of smallholders. It then considers smallholding motivations and highlights that smallholders primarily seek privacy, quietness, open space, and clean air. Land use change and regional implications of smallholding are then reviewed before concluding briefly with books that give practical advice on smallholding. The sections are by no means discrete and at best they are generally thematic with considerable overlap between sections.

2.2 Definitions and Some General Characteristics of Smallfarmers

Before attending to definitions and other issues we briefly note the estimates of numbers of smallholdings. Considering properties between one and 40 hectares, Grant (2000) concludes from Ministry of Agriculture estimates, Quotable New Zealand figures, and regional authority and local council data that there are an estimated 70,000 smallholdings. He notes that according to real estate agents, there are 100,000 smallholdings.

The Smallfarmer (1999) makes a distinction between different types of smallholders based on their economic productivity and their off-farm earnings. They use the terms 'lifestylers', 'hobby farmers' and 'the serious smallfarmer' to distinguish the different groups of smallholders (*The Smallfarmer*, 1999:1). Grant (2000) also categorises three different groups of smallholders, using the terms 'smallfarmers' and 'lifestylers' with 'hobby farmers' somewhere in between. He considers smallfarming is an attitude of mind rather than a given number of hectares. For the purposes of this literature review, the main focus is on the two

main subgroups of smallholders: smallfarmers are those primarily interested in production and lifestylers are those who are primarily interested in the rural lifestyle. To develop this distinction further we have selected two studies which profile the two types of smallholders.

Lawn et al. (N.D.) provided a picture of smallholders near Christchurch in the late 1970s that includes both of these types but is dominated by lifestylers. Most were family aged (that is, not less than 30 years or over 57 years) and had professional, managerial or skilled work typically located in Christchurch. There were 18 per cent retired, 20 per cent in full-time employment and 62 per cent in part-time employment. The research showed a variety of land uses. However, 47 per cent of the sample had a main land use of stock, 14 per cent were 'diversified', and there were 11 per cent respectively for mixed cropping and livestock, and horticulture. The intensity of land use ranged from smallholdings that were purely residential to some that were highly intensive horticultural or factory farms. More of the full-time smallholders engaged in factory farming or diversified land uses, and fewer engaged in stock or cropland uses. Horticulture was the most frequently noted anticipated new land use.

Smallfarmers can be profiled from the results of a nationwide postal questionnaire of 178 smallholders conducted by *Country Living* (1994). The aim of the study was to find out about smallfarmers and their role within the rural community. The results from the questionnaires returned by participating subscribers were published in *Country Living* (1995). They established a 'profile' of the smallfarmer: 45 per cent of whom had their properties subdivided from existing farms; 84 per cent farmed with their partner, husband or wife; while a further 11 per cent farmed on their own; and 43 per cent had children. Of those smallfarmers surveyed, 47 per cent had some previous farming experience. Sixty-one per cent of the smallfarmers and 77 per cent of their partners worked up to 20 hours a week on their properties; 71 per cent were employed off their properties, 47 per cent on a full-time basis and 73 per cent of partners worked off the land. Smallfarming provided the principal income for only four per cent of respondents and supplementary income for a further 57 per cent. The main farming activities were sheep (39.5 per cent), cattle grazing (36.5 per cent), dairy beef (21 per cent), calf rearing (18.5 per cent), horticulture (13.2 per cent), trees for timber (12 per cent), pigs (11 per cent), and tree crops like walnuts, chestnuts and olives (seven per cent). Self-sufficiency was seen as a goal by half the smallfarmers and 79 per cent had partly achieved it.

The profile of smallfarmers provided by *County Living* (1995) is quite similar to the profile of lifestylers described in Lawn et al. (ND) in that only a very small proportion (four per cent) had farm income as their main source of income. Surprisingly, 47 per cent of smallfarmers had full-time work off farm while for Lawn et al. there were 20 per cent. This raises the question of the validity of the distinction between smallfarmers and lifestylers. It may be better to divide smallholders into two groups: one comprising full-time intensive farming or horticultural activities and the other comprising smallfarmer and lifestylers. The former aspire to be productive but need to work off-farm in much the same way as the latter.

Comparing different studies completed at widely different times raises the question of whether smallholding is changing over time. Grant and Grant (1998: 21) consider that the general character of smallfarmers is likely to change rapidly along with economic and societal trends in New Zealand and with a speed up in the movement of people to the countryside. Hunt (1994) produced data relevant to this issue in a study of the extent to which smallholders contributed to sustainable development in the Southern Rodney area, north of Auckland. All the smallholdings were between one and ten hectares in size. The questionnaire was based on the survey by Moran et al. (1980) used for the Auckland Regional Authority survey. When Hunt compared the findings from his 34 questionnaires to the 1980

survey, he found that smallholders were less likely to buy farms to make a living than previously, and they were motivated to live in the countryside for lifestyle reasons rather than agricultural production. His conclusion should be seen as tentative because of the small sample size employed. Hunt also found that smallholders with previous farming experience were making higher profits than non-farmers were; alternately the non-farmers considered wildlife more important.

Our knowledge of smallfarmers and lifestylers as specific subgroups of smallholders needs to be updated. The literature suggests that the majority of smallholders appear to be lifestylers; however, there is a need to establish if that is still the case in 2000. Another issue is whether smallfarmers and lifestylers are in fact different from each other.

2.3 Smallholder/Smallholding Characteristics and Motivations

Lawn et al. (N.D.) conducted a random sample of smallholdings in Paparua County in the late 1970s. They found that most of the smallholders previously resided in Christchurch or in rural towns in Canterbury, and they were motivated by the appeal of the rural environment and associated lifestyle, including clean air and open spaces (Lawn et al., N.D.:16). Farming and agricultural interests ranked relatively low as a motivation for moving into a rural environment. It was reported that very few of the smallholders were dissatisfied with their rural lifestyle. Just over one-half of the smallholders had had some association with farming in the past and some had been born and raised in a rural environment. The average size of smallholding was six hectares. However, respondents said they would have preferred a larger property. Agricultural production on the smallholdings developed on one subdivided farm was, at the time of survey, equal to the original farm production and trending upwards. This survey of smallholdings showed that more smallholdings were being utilised at average or above average efficiency than were being utilised at below average efficiency.

Jowet (1976) surveyed smallholdings nationally to find that there were about 27,000 rural holdings between about one and ten hectares, occupying a total of 100,000 hectares. These smallholdings were commonly used for residential purposes with just under one-half of the total number used as a source of income. However, for most of these smallholdings less than one-quarter of household income was obtained from the land. Gardner (1978:119) further analysed the Jowet (1976) survey data and noted the level of satisfaction with present living place compared to level of satisfaction of previous living place. Seventy-six per cent of respondents selected 'more satisfactory', indicating fairly high levels of satisfaction with the rural lifestyle. Two-thirds of respondents also indicated that they would almost certainly be living on their current property in five years' time.

Moran et al. (1980: Vol.1 :25) directly addresses the issue of motivation for smallholding on properties between one and ten hectares. They reported that both full-time and part-time smallholders have a basic family-orientated motivation to live in a rural environment away from the city, seeing this as a more suitable environment in which to raise children. Both full-time smallholders (those working full-time on their properties) and part-time smallholders rated important 'to avoid living in an urban environment' and 'to live in a rural environment yourselves'. Full-timers only rated 'to grow and sell horticultural crops' as important, while part-timers gave strongest support for 'to raise children in a rural environment'. Moran et al. (1980) also noted that the principal motivations for rural living have remained constant over time. The locations of smallholders' previous residence were also studied. About one-quarter of households came from within the smallholder areas, including rural townships. However, 62 per cent came from Auckland City.

Yerex (1988) makes some observations on the motivations of smallholders. He notes that some people prefer the semi-rural setting once they have started a family, seeing it as a healthier, freer life for children, which supports the findings of Lawn et al. (N.D.) and Moran et al. (1980). Also of importance to smallholders is taking pleasure in the natural world and leading an active independent life. Some smallholders are 'rural jet setters' - the wealthy professional and business executives who build expensive new homes and are sometimes first in on new types of farming such as deer or goat farming. Other smallholders are intending to develop a retirement unit, are self-employed consultants, or writers. Finally, some smallholders adopted country living for philosophic reasons or are alternative lifestyles who reject some aspect of contemporary urban society. Clearly, there are many motivations for smallholding.

Fairweather (1993) undertook a study of 37 intending and 21 existing smallholders from 34 families located on the fringe of Christchurch. In terms of motivation, people frequently mentioned "open space with no neighbours" in interviews. The Q-sort method produced quantitative data around the four themes of open country (similar to Lawn et al., N.D.), wilderness, peace and quiet, and raising a family (similar to Moran et al., 1980; Yerex, 1988). These themes were important for both intending and existing groups of smallholders. Few smallholders left their land out of dissatisfaction and returned to the city but they were, however, sustained by urban employment. These original findings were further interpreted in Fairweather (1996) "We Don't Want to See Our Neighbours' Washing", the title reflecting statements made by those interviewed. Privacy was important for 31 of the 34 families in relation to their smallholding lifestyles. Swaffield and Fairweather (1998) also interrogated Fairweather's (1993) findings within a wider theoretical and international context. They linked New Zealand smallholders to the Arcadian pastoral ideals and motives of a quiet simple rural lifestyle, or the 'rural idyll'. Swaffield and Fairweather (1998) concluded that Arcadian ideals continue to influence migration to rural lifestyle smallholdings in New Zealand and remain significant in planning policy for peri-urban areas. Rural imagery remains an important part of New Zealand culture that smallholders are yearning to capture (Fairweather, 1996; Swaffield and Fairweather, 1998). However, the smallholders are not rejecting the city because urban areas are crucial towards maintaining their lifestyle.

The Waimakariri District Council (WDC) undertook two quantitative studies relating to their new residents, the first in 1994 (WDC, 1994) and the second by Sparrow in 1996. The WDC (1994) aimed to find out about new residents, their interests and aspirations by distributing a questionnaire to 200 'new' households from which 169 were returned. Using a similar method, Sparrow (1996) ascertained what attracted people to the rural residential zone by distributing questionnaires personally to 427 rural residential properties within the WDC area. Replies from 234 people allowed her to describe local households and canvass their attitudes and preferences about rural life. In both studies, lifestyle and environmental factors were the main attractions. In 1994, "rural atmosphere", "peace and quiet", and "slower pace of life" were mentioned by 33 per cent of the residents (WDC, 1994:30). In 1996, 53 per cent of the residents mentioned "to have a garden", "room for children to play", "to have animals", "to avoid close neighbours", "rural atmosphere", and "peace and quiet", while 43 per cent discussed "space", "quiet", "clean air", and natural features, climate and views (Sparrow, 1996:22). Sparrow reported on people's desire to live in a rural environment and enjoy the lifestyle offered, which supported the findings of an earlier WDC study in 1991 on rural residential zones. The majority of the respondents in 1996 preferred rural residential properties sized between 0.5 and two hectares (Sparrow, 1996:51) in keeping with the focus on rural residential sections. In 1994 and 1996 around 60 per cent of residents worked in Christchurch (WDC, 1994:6; Sparrow, 1996:13). Most of these people were in professional, managerial or skilled work (WDC, 1994:6) a finding that supports Lawn et al. (N.D.).

Hamilton (1999) also worked with the rural ideology theme in relation to counter-urbanisation and lifestyle blocks around Dunedin. She surveyed 89 residents on smallholdings by postal questionnaire and followed up with 15 of these people through semi-structured interviews. Hamilton (1999) was interested in people's residential choice rather than economic land use. She found, like Fairweather (1993; 1996), that the privacy and space of rural life attracted residents to migrate to their lifestyle blocks, with the most powerful motivation given by respondents being the perception that the 'rural' was a safe place to live. Hamilton (1999) concluded, like Swaffield and Fairweather (1998), that the 'rural idyll' was a strong feature in the narratives of the lifestyle block residents surveyed.

Smallholders generally come from middle class occupations and work in the nearby town or city, but Grant (2000:42) states "not all urban escapees are wealthy". Waldegrave and Stuart (1998) identified a significant proportion of low-income migrants in their series of surveys from different New Zealand regions. The advantages given to living in rural areas compared to urban were largely "physical", "aesthetic" things like the environment, the community, and the lifestyle (Waldegrave and Stuart, 1998:7-8), a theme that has repeatedly emerged from the literature over the past twenty-five years. In addition to this trend, return migration, people who go back to their rural community of origin, has also been documented in New Zealand (Scott et al., 1997). However, Grant (2000:46) states, "In the South Island, smallfarming may be helping stem the population drift northwards". Urban-rural migration is becoming a more common theme; Edwards (1992) found that 65 per cent of those on hobby farms around Christchurch had shifted from urban areas.

The focus on smallholder motivations can be extended slightly to consider farmers' views on smallholding. Lee (1999) interviewed 42 farmers from 25 farms in the Selwyn District, close to Christchurch, to find out about the process of subdividing from their perspective. She found that 'lifestylers' and farmers did not interact much. Farmers who had subdivided their land were positive or neutral about the newcomers whereas non-subdividing farmers were eager to express viewpoints on the 'lifestylers'. Lee (1999) found the purchasers of smallholdings were distinctive because they maintained off-farm employment, were an affluent group who was characterised by large homes or 'mansions' and new landscaping. The smallholders were often at the child rearing stage of life, a finding that supports Lawn et al. (N.D.), Moran et al. (1980) and Yerex (1988).

The research on smallholders' motivations has produced results that are remarkably consistent. There are high levels of satisfaction with the rural lifestyle, the principal features of which are: clean air, open space, good for family, safe, enjoyment of wilderness/nature, peace and quiet, and quality of life. Not included among these dominant themes is productive land use although the research shows that some smallholders do emphasise this objective.

2.4 Land Use Change and Regional Implications of Smallholding

Research conducted early in the 1990s by Edwards (1992) looked at the role of hobby farming in the changing land use around the urban periphery of Christchurch over a 22-year period. Edwards (1992) chose four study areas that represented the entire urban periphery and administered 100 questionnaires face-to-face or left them with the person and collected them two days later. Edwards (1992) found that hobby farms, which she defined as less than 50 hectares with a labour input lower than 30 hours per week, played a significant role in changing land use. Hobby farms replaced traditional farms with multi-functional land use systems supported by off-farm income. There was a concentric zone of hobby farms around Christchurch, which has displaced dairy farms and market gardens to the next zone out from the city. Edwards (1992) described hobby farmers as people who desired the country lifestyle

rather than wanting to be farmers who were financially dependent on the land. This description of hobby farmers parallels the definition that Grant (2000) uses.

Welsh (1995) was commissioned by MAF, Auckland Regional and Franklin District Councils to consider rural subdivision from a different angle by doing a cost benefit analysis of a 160-hectare farm in the Franklin District. He considered four different scenarios for subdivision. Welsh found that four-hectare smallholdings using a mixed land use scenario were the most productively efficient units. With the focus being to create productive units, Welsh concluded that if the subdivisions were too small (two hectares) then too much productive land was lost and the demand for roading and other key services would not keep pace without major spending by the local authorities.

Talbot (1996) conducted a telephone survey of 200 randomly selected people in the Western Bay of Plenty District Council area. He assessed the attitudes towards rural subdivision by 50 people who had lodged applications for subdivision, 50 subdivision buyers and 100 existing property owners not included in the two previous groups. There were 141 properties below ten hectares (55 were between zero to two hectares, while 86 were between two to ten hectares). It is important to note, however, that the survey included four farms over 100 hectares. The majority of those interviewed (73.5 per cent) noted rural subdivision impacted at an individual or community level. Traffic and roading issues were the most frequently discussed negative impact (by 18.5 per cent of the respondents) while the main reason for subdividing was given as financial (six per cent of those surveyed). Privacy was central for people buying land, with their size preferences being less than ten hectares and there was a tendency for long-term (over ten years) ownership by 50-60 per cent of the sample population. Talbot (1996) claimed that these findings were consistent with research conducted by the Western Bay of Plenty District Council in 1994. Talbot found that 59 per cent of the sample received their main source of income off-farm, while 31 per cent derived their main household earnings from the property. These findings reflect that 29 per cent of the respondents had some form of horticultural land use, while another 19 per cent of respondents were involved in grazing. A further 28 per cent of the sample stated that they used their land for residential/ lifestyle purposes. Perhaps the high proportion of these properties with their main income on farm reflects the inclusion of kiwifruit growers or other full-time horticultural units.

Research by the Western Bay of Plenty District Council and MAF (Scarrow et al., 1996) established that small blocks were being created at the expense of land used for agricultural purposes and larger blocks were being subdivided into no longer viable units. Scarrow et al. (1996) took a random sample of 351 owners with less than 20 hectares who had established their smallholdings over the last five years. A questionnaire was administered to ascertain the smallholders' past, present and future land use and find out what they produced on an annual basis. Scarrow et al. (1996) established that land use had significantly changed since 1992 with the total number of properties engaged in no primary production rising from two to ten per cent (3.4 to 29.3 hectares in total). The average size of smallholdings was 4.4 hectares, with 62 per cent of those surveyed living on blocks less than four hectares. Land use choices were lifestyle related rather than based around the size of the property or economic productivity. However, 52 per cent of the land involved in the survey was producing more or equal to what it produced prior to subdivision. This finding parallels with the 1970s Canterbury results of Lawn et al. (N.D.). In more recent Canterbury research (Lee 1999) farmers have expressed discontent over the rural subdivision policy and view farmland subdivision as a loss of productive land. But these farmers have also admitted that subdivision was beneficial towards countering the falling profitability in traditional farming since the rural downturn of the 1980s.

Moving away from research undertaken by local authorities, land use was also studied by Blakie (1996) who looked at the changing patterns around the urban-rural fringe of northern Christchurch over 50 years. His research included a case study on one of three recent subdivisions. Blakie found Christchurch's rural-urban fringe areas developed at the expense of traditional land use and activities. There was a movement toward a larger range of land uses (also discussed in Edwards, 1992). He found people focused on the 'natural environment' of the rural-urban fringe for the subdivisions, with a counter-urban residential movement for lifestyle reasons also taking place. People 'perceived' the rural environment offered them advantages for their health.

The increasing popularity of smallholdings has had an impact on rural populations. For example, Selwyn District has one of the fastest growing populations in New Zealand with population growth of 16.2 per cent between 1991 and 1996 (Lee 1999:25), while for the same period nationally the growth rate was nine per cent for country areas including small towns (Grant, 2000:41). As a consequence schools have increased rolls (Grant, 2000; *The Press*, 1995; *The Press*, 1996), there has been an injection of capital into these areas, and the kind of population growth that leads to more diverse communities. These issues have not been well documented in the existing literature and are worthy of more detailed study.

Problems with bureaucracy were mentioned in some of the studies, for example, getting permits, regulations and costs (Fairweather, 1996:79), while suggestions were made by some people to improve the rules to reduce the qualifying lot sizes and have more flexible criteria for subdivision (Talbot, 1996:7). Council-operated water schemes, sewerage and drainage matters also came under criticism by a minority of people (WDC, 1994:8), and providing a sufficient standard of roads to deal with the increasing levels of traffic was a consistently mentioned issue (Sparrow, 1996:39; WDC, 1994:8). However, the majority of the research reports that people have been relatively satisfied with their local authority.

Research on land use change and the regional implications of smallholding confirms that seeking privacy is an important motivation for smallholders and that long-term ownership of land is anticipated by smallholders. The literature also shows subdivision from traditional farm land does not necessarily lead to a decrease in productivity. For Scarrow et al.'s (1996) study at least, an estimated 52 per cent of land included in the survey was producing more or equal to what it produced prior to subdivision, presumably on the larger-sized holdings.

2.5 Practical Advice on Smallholding

On a practical level books have been written specifically aimed at advising smallholders how to effectively farm their land. Fisk's (1996) book is described as "an essential reference tool for all smallfarmers" as it is full of diagrams and photographs as she moves beyond the romantic and idealistic notion of living "the good life" to the reality of what smallfarming involves. Grant and Grant (1998) also wrote a 'manual' for smallfarmers based on their own experiences. They offer a general background and introduction to smallfarming in New Zealand. Grant and Grant then present "25 secrets of successful smallfarming", followed by a series of 21 case histories of smallfarming partnerships from around the country. They describe smallfarming as a "state of mind" and that the majority of people wished they had been less cautious and started out as smallfarmers 10-15 years ago.

2.6 Conclusion

Several key themes emerge from the literature review above. The central theme is the importance of the rural lifestyle as a motivation for smallholders to purchase land in the countryside. These people greatly value privacy, quietness, open space, and clean air. Smallholders are attracted to the rural lifestyle particularly if they are of child rearing age as the country is perceived as a good place to raise children. These values are characteristic of the 'rural idyll', or Arcadian values. Typically, smallholders do not desire further subdivision in close proximity to their existing smallholders; they have already left the city to 'escape their neighbours washing' and do not want close neighbours. Smallholders typically have a source of income away from the smallholding in a nearby urban area, and tend to be employed in professional, managerial, or skilled occupations. In addition, most smallholders shop in the urban areas where they had previously lived or where they work. Overall, smallholders are generally satisfied with their rural lifestyle.

When preferences towards the size of smallholdings are evaluated, some literature indicates lot size preferences are getting smaller. For example, Talbot (1996:10) discovered those blocks less than ten hectares were the most popular, while Scarrow (1996:2) found that smallholdings averaged 4.4 hectares in size. In contrast, Lawn et al. (N.D.) presented the average size of smallholdings as six hectares in the 1970s, with people stating they preferred a larger property. It may be that lot sizes have become smaller. A change in legislation from the Town and Country Planning Act 1977 to the Resource Management Act (RMA) 1991 may have led to more diverse and flexible land uses (Grant, 2000:47; *The Smallfarmer*, 1999:2).

A second theme in the literature is that smallholders can be divided into two subgroups, that of smallfarmers and lifestylers. Lifestylers generally raise their families in the rural surroundings with two adults working in town rather than using the land for economic production. These people are motivated to live in the countryside for the rural lifestyle rather than agricultural production. In contrast, smallfarmers apparently have a greater interest in economic production from their smallholding. However, *Country Living* (1995) established that only four per cent of respondents in their survey, typically smallfarmers, received their principal income from the smallholding, while a further 57 per cent received some form of supplementary income from their land. Further, 71 per cent worked off farm and 47 per cent in full-time work, rates similar to data on lifestylers. It is possible that the distinction between lifestylers and smallfarmers reflects the level to which they acknowledge that lifestyle is important rather than a reflection of different levels of production.

The third theme in the literature was that of changing land use. Over the last fifty years land use has changed throughout New Zealand with an increase in smallholdings on the fringe of cities. These changes have been documented in different regions. Smallholdings have now replaced land previously occupied by dairy farms and market gardens in a concentric zone around the city. Such land use change has led to research on optimal size of smallholdings for subdivision to ensure productive farmland is utilised to full potential. Other studies have focused on community costs and benefits of rural subdivision. Aspects of migration are also captured by more recent literature, as are issues relating to bureaucracy and local authorities.

A fourth, but more minor theme was that of the practical literature available for smallholders. Books have been written and articles published in places like *Country Living* and *The Smallfarmer* to assist smallholders, both smallfarmers and lifestylers, farm their land in an effective manner.

In summary, smallholding is an important part of rural community in New Zealand. There are an estimated 70,000 to 100,000 smallholdings in New Zealand. These are typically below ten hectares in size. While there is a broad range of people who engage in smallholding there are some who express their lifestyle ambitions in the construction of an elaborate house. In terms of work, the general pattern is that it is usually carried out by both partners who share their on and off-farm employment commitments, the latter being dominant and, in many cases, crucial to supporting the smallholding activity. The literature suggests that there are smallfarmers who are more interested in production than are lifestylers. There is also the suggestion that lifestylers are increasing in number and that smallholding size is decreasing.

While there has been a burgeoning literature on smallholdings and smallholders there remains the question of size preference and the need to document the current situation. Provision of smaller rural residential sections has been increasing, raising the question of whether these smaller units may be attractive to smallholders. These and other issues will be addressed in Chapter 4 and discussed in the final chapter. Before this the method for this research is described.

Chapter 3

Method

3.1 Introduction

An important objective of this research was to determine the lot size preference of smallholders around Christchurch. Also important were the lifestyle values of smallholders and smallholding characteristics generally. These objectives were achieved by using a random sample to represent the smallholding population and assessing the sample characteristics by means of a questionnaire. The population size was estimated by Environment Canterbury to be 7,723 for property sizes ranging from 0.04 to 20 hectares that were in the rural areas of the three authorities. The study area included those parts of Waimakariri and Selwyn Districts within a 40 kilometre radius of the centre of Christchurch and the Christchurch City Council area.

This chapter outlines the questionnaire and its development. It then describes the selection of the sample, reports the response rate and assesses the quality of the sample.

3.2 Questionnaire Design and Testing

Question design drew from earlier research, for example, *Country Living* (1994), Hunt (1994), Scarrow et al. (1996), Sparrow (1996), and Talbot (1996), but the majority of questions were developed for this research. The questionnaire (see Appendix 1) was designed to find out the size of land uses on the smallholding, the associated lifestyle values of smallholders and other smallholder characteristics, their main preferences of rural living, and preferences for lot size.

There were only four open-ended questions included in the whole questionnaire; the remaining questions asked for a numerical response, or listed qualitative options for the respondent to choose from so they were able to record the corresponding number in the appropriate box. This design meant that only minimal coding was necessary when the questionnaires were returned.

The questionnaire was divided into five sections. The first section was designed to gain relevant background information about the smallholding from each respondent including size, length of ownership, and the number of smallholdings previously owned. The distance to Christchurch, the nearest shopping centre/town, and the distance to that town or shopping centre were also of interest in order to establish the travel routines of people, whether they shopped locally in the rural service centres or travelled to Christchurch. This first section of the smallholding questionnaire concluded with descriptive information about the house on the property, if there was one, the type of sewage treatment plant, and type of water supply used.

The second section included questions relating to land and production, either by selling their produce or choosing to use what they produced for their own use. A table was designed so respondents could record approximate land area for each land use, and record subsequent sales and/or value of production for their own use. Work on the smallholding was covered and what term best described the respondent, for example, lifestyle, hobby farmer, smallfarmer, horticulturist/grower/farmer, or 'other'. Questions were included on changes in level of production, constraints on production, and level of capital investment.

The third section covered employment. These included the average number of hours worked on the property by any person, whether paid or unpaid, and how important generating full-time employment from the smallholding was at the time of purchase and now. The off-farm employment status (full-time or part-time) of the respondent, their partner, and any other adult members of the household was also established in this section, in addition to the occupations, commuting destinations and distances for both partners.

The fourth section of the smallholding questionnaire was designed to elicit general attitudes and values of smallholders. We began this section by asking the respondents whether lifestyle or land use was the most important to them at the time of purchasing their smallholding compared to the present time. The next question aimed to establish the level of satisfaction of the respondent's smallholding lifestyle, using a seven-point scale anchored by '(1) Very strongly dissatisfied' and '(7) Very strongly satisfied'. The next question established how long the respondents' intended remaining on their smallholdings. Questions were also asked about size preferences for those respondents who intended moving in the next five years, or ever, and between rural and urban living. These issues were expanded to gauge what size residential sections or smallholdings were considered at the time of purchasing the smallholding, if the respondents would ever consider shifting to a residential section, if they were satisfied with their current land size, and if not what size smallholding they prefer. Also covered in section four were motivations for smallholding at the time of purchase and at present. To find out this information, 16 items were listed and the respondents asked to rate each factor using a five-point scale starting at '(1) Not at all important' through to '(5) Extremely important'. Eleven disadvantages of the respondents' rural lifestyle were listed for similar rating.

The smallholding questionnaire concluded with a short section to record some personal characteristics and some demographic information. Respondents were asked to select the appropriate range of income for themselves and separately for their partner.

The smallholding questionnaire was pre-tested between 28 April and 3 May 2000 by 14 men and women to ensure that the opinions and attitudes of both genders were encompassed. In three instances both partners completed the pre-testing questionnaires, a mother and son answered jointly in a fourth case, and each of the remaining ten questionnaires were filled out by individuals. In general the questionnaire made sense to people and it was easily understood. Pre-testing feedback was recorded and formed the basis of the reworked and final version. Minor modifications were made so that the questionnaire questions were easier to understand, instructions for the respondents were simplified, and other questions eliminated in an effort to remove as much ambiguity as possible.

3.3 Sampling and Response Rate

Statistical considerations mean that for a sample proportion of P of 50 per cent, at the 95 per cent confidence level, a standard error of ± 5 per cent and with a finite population correction then the appropriate sample size for a sample is 366. The assumption was that 800 cases would be needed, given a response rate of 46 per cent, to provide this sample.

Environment Canterbury selected a random sample from their data on parcels of land between 0.04 and 20 hectares. This initial random sample consisted of 1,086 names of occupiers and their addresses. All names and addresses were removed that showed the owners as the Waimakariri District Council (WDC), Selwyn District Council (SDC) and Christchurch City Council (CCC). In addition, all multiple listings of private occupiers were removed so each name appeared only once. Business addresses were removed from the list,

as were schools and church-related groups, and government departments. The original sample had been reduced to 720 elements. Therefore, an additional 400 names and addresses were acquired from Environment Canterbury and randomly sampled, using a sampling fraction of one in five, to obtain the 80 smallholders still needed to raise the sample size to 800.

The questionnaire was posted out, accompanied with a letter of invitation to be involved in the research and a freepost envelope, to a random sample of 797 people on 12 May 2000. A reminder postcard was posted out on 24 May 2000 to all 624 respondents who had not yet returned their questionnaire forms.

There were 353 questionnaires returned giving a crude response rate of 44 per cent (Table 1) which was very close to our original expectation. However, there were 143 questionnaires returned which were discarded for differing reasons. Forty-nine questionnaires were returned as undeliverable mail to Lincoln University and labelled as ‘return to sender’, ‘gone no address’, ‘box closed’, or ‘not a boxholder on rural delivery’. Clearly, the database from which our sample was chosen was not up to date. A further 34 questionnaires were returned in the freepost envelope provided and all but one were blank. It is very likely that these were from people who were not smallholders and were communicating this by sending the untouched questionnaire back. Sixty questionnaires were returned but not included in the analysis for the following reasons. Thirty-four of these were omitted because the addressees were not smallholders (15 identified their properties as residential sections, while 19 did not specify the size). The remaining 26 of the 60 returns were omitted because their properties were greater than 20 hectares. Thus the database was not accurate in terms of lot sizes. In total, these 143 discarded questionnaires accounted for 18 per cent of the total 797 questionnaires posted out. Two months after posting the questionnaires, 218 were coded as usable responses, giving a 33 per cent response rate from the 654 viable smallholdings.

Table 1: Numerical Details About the Sample

	No.	%
Original number in the sample	797	
Total number returned	353	44
Incorrectly addressed	49	
Returned blank or incomplete	34	
Not a smallholder	60	
Subtotal	143	18
Viable smallholdings	654	
Usable questionnaires	218	
Adjusted Response rate		33

Given that the number of usable questionnaire was 218 the error term for any estimate of a population characteristic is ± 6.6 per cent.

The sample of usable questionnaires was compared to known characteristics of the population of smallholders, the latter data provided by Environment Canterbury for their data on the population of smallholdings. The available data relates to size of smallholding. Table 2 shows, for three size ranges, the sample data and the estimated number based on the population proportions. The table also includes data from the non-respondent sample (which will be discussed shortly). The sample has more smallholdings in the 10-20 hectare size range and fewer in the 0-4 hectare range. The Chi-square (5.99, df 2, $p > 0.05$) indicates that the differences are not statistically significant.

Table 2: Expected and Sample Size Ranges Compared

	Size range in hectares					
	0-4		4-10		10-20	
	No.	%	No.	%	No.	%
Estimate from Population %	101	47	78	36	37	17
Sample	89	41	79	37	48	22
Non-respondents	19	40	18	38	10	21

Another source of potential error is non-respondent bias. This would occur if the characteristics of those who did not respond to the questionnaire were different from those who did respond. This source of error is potentially significant since the adjusted response rate is 33 per cent meaning that most smallholders did not reply. A telephone survey of 50 non-respondents was conducted three months after the mail survey was completed. Of the 797 questionnaires posted out there was no response from 444 people. A sampling fraction of one in four of the non-respondents provided a random sample of 110 people. Such a large random sample was needed to counter the effect of those who were not smallholders or who were not able to be contacted by telephone. This decision was made based on our previous experience with the postal questionnaire. In fact, at the end of the selection process the sample of non-respondents was still five less than the 50 needed so another six were randomly selected, one of which was a residential section and therefore excluded.

Before and during the telephoning it soon became clear that a sizeable proportion of the non-respondent sample could not be contacted. The reasons for these omissions are shown in Table 3. From the sample of 110 names, seven names were removed because they either belonged to businesses (four), were farm companies (two) or they were a family trust (one). A further 29 could not be contacted (there was no listing under their name in the telephone book, their telephone number was disconnected, or the number phoned was incorrect). There were 17 people contacted but who had residential properties or properties over 20 hectares in size. Thus, there was a subtotal of 53 who were not smallholders (assuming that all smallholders are on the telephone) and when subtracted from the original 110 leaves 57 actual smallholders. There was no reply from six people and one person declined to answer any questions over the telephone. Five people did not participate due to ill health (two) or because they were away (three). Thus, there was a subtotal of 12 smallholders who did not participate. The 45 who did respond comprise 79 per cent of the 57 actual smallholders.

Table 3: Reasons for Excluding Cases From the Non-respondent Survey

	No.
Original number	110
Address information showed that they were not smallholders	7
Not listed in telephone book	29
Contacted but not smallholders	17
Subtotal (not smallholders)	53
No reply	6
Declined to participate	1
Unavailable	5
Subtotal (did not participate)	12
Valid smallholders	45
Supplementary group	5
Available smallholders	50

The final non-respondent sample of 50 included all those people who owned properties between 0.2 and 20 hectares (the same size range as used for the mail survey). Thirty-six of these people remembered receiving the questionnaire but the remaining 14 did not, even when prompted over the telephone. It is likely that they did receive a questionnaire but had perhaps forgotten in the three intervening months. It is important to note that the adult who provided this information may not have been the person to whom the original questionnaire was addressed. A number of other reasons were given for not remembering or not seeing the questionnaire. One woman said, after confirming the questionnaire was addressed to her, "I can't remember, it may have got buried in a heap of junk!" Another person, while still owning his property, did not live there because a change of by-laws meant he could no longer build on the land, and another person stated she was looking after the hobby farm while the owners were away. Someone indicated they were not interested in research at all, while another person stated: "Too much mail comes through and I tend to throw a lot of it out." Another person had shifted elsewhere in the South Island, their smallholding was for sale and they did not get the questionnaire forwarded to their new address. The remaining five people made no comment about not remembering the questionnaire.

Three people spoken to over the telephone stated they had returned the questionnaire to Lincoln University but there was no record of it actually arriving. It is possible that these questionnaires went missing in the post. Data was still collected from these three people to be included as non-respondents, although technically they did respond.

Data were collected from the non-respondents for four variables including: gender; smallholding size; age; years lived on present smallholding, intention of leaving the current property in the next five years, and the smallholders preference of lot size if they were ever to move. Table 4 shows data which compares the 50 non-respondents surveyed by telephone with the 218 respondents to the questionnaire survey. These data show that there is no serious non-respondent bias. The mean smallholding size of the non-respondents is not significantly different from the main sample although the mean might mask differences in size range data. Data presented earlier in Table 2 show that the size ranges of the non-respondents matches the size range of the main sample very well.

Table 4: Characteristics of Non-respondents and Respondents Compared

Variable	Respondents	Non-respondents	Chi-square or T-test
Percentage males	63	42	p < 0.01
Mean smallholding size (hectares)	5.65	5.54	n.s.
Mean age (years)	50	52	n.s.
Mean years on smallholding	10.27	11.23	n.s.
Percentage intending leaving in next five years	19	23	n.s.

Gender is the only variable where a significant difference exists between the respondents and the non-respondents. For the postal survey 63 per cent of respondents were men, whereas for the telephone survey 42 per cent of the non-respondents were men. The higher proportion of women answering the non-respondent survey occurred because women were more likely to be at home than their male partners and therefore more likely to respond to the telephone non-respondent survey. Results from the sample of smallholders studied will show that more men than women were in full-time employment. Another factor was the timing of the telephone call. While the majority of telephone calls were made in the evening some non-respondents were also contacted during the day when it is more likely for a woman to answer the telephone. A final factor is that with the mailed questionnaire, some women may have asked their partners to reply.

The preferences for lot sizes are outlined in Table 5 for both the sample of respondents (n=202) and the sample of non-respondents for whom these data were obtained (n=41).

Table 5: Respondents and Non-Respondents Percentage Preferences for Lot Size if Ever Move

	Residential Section	Rural Residential Section (0.1-1 ha)	Smallholding (1-20 ha)	Other	Total
Respondents	27	21	34	18	100
Non-Respondents	24	32	22	22	100

The Chi-square value of 3.92 was not significant ($p > 0.05$) therefore there is no significant difference between the preferences of the smallholders that responded to the questionnaire and the smaller sample of non-respondents. Thus it is reasonable to take the results from the respondents as a true indication, within the standard error, of the population estimates.

Data from the non-respondent survey can be used to refine further the response rate for the questionnaire survey. When the questionnaires were mailed out there were 143 replies received back that were discarded because they were not from smallholders. However, there were many people in the sample who did not reply at all for the same reason and they appear in the non-respondent survey. Table 3 shows that there was a subtotal of 53 in this category and this number needs to be used to revise the number of viable smallholdings. When 53 is subtracted from the 654 (the total number of viable smallholdings, see Table 1) there remains

601. The usable number of questionnaires was 218 so the revised response rate was 36 per cent

3.4 Conclusion

The sampling design used in this study of smallholders worked well in that sufficient replies were received to give a reasonable representation of the smallholding population. While there were some imperfections in the original population list, these did not prevent a useful sample from being obtained. A non-respondent survey showed that non-respondents were similar to respondents and that there was no indication of any serious non-respondent bias.

Chapter 4 Results

4.1 Introduction

The overall strategy used in this analysis was to treat the respondents as one group. This strategy allows for the general characteristics of smallholders to be understood relatively easily and is justified by the fact that only 11 per cent identified themselves as farmers. However, analysis of different types of smallholders in terms of their stated characterisation showed significant differences for a number of variables suggesting that there are some differences between smallholders. The particular characteristics of the different types will be presented at the end of this chapter. The earlier sections of this chapter approaches smallholding by starting with some general characteristics then moves to the topic of motivations. Then it considers land use, including value of production. The related issue of work and employment on the smallholding is then examined before considering satisfaction with the smallholding lifestyle. Each section is concluded with a summary.

4.2 Smallholder and Smallholding Characteristics

Some general data are available on smallholders' gender and age. Of the 218 respondents from the smallholding survey, 135 (63 per cent) were men and 80 (37 per cent) were women, while three people did not disclose their gender when answering the questionnaire. The respondents ranged in age from 30 to 88 years, with the average age of smallholders being 50 years. Fifty per cent of this sample was between 43 and 57 years of age.

While this questionnaire was entitled 'Smallholding Survey' the questionnaire was designed to allow respondents to describe and identify themselves. There were 101 (46 per cent) who chose 'lifestyler' as their primary smallholder identity (see Table 6). A further 85 respondents (39 per cent) were spread throughout three secondary identity categories, including 'smallfarmer' (33, or 15 per cent), 'hobby-farmer' (29, or 13 per cent), and 'horticulturalist/grower/dairy farmer' (23, or 11 per cent). The remaining 32 respondents (15 per cent) were distributed across a third tier containing six identities, including 'investor/developer' (six per cent), 'other' (four per cent), 'small business proprietor' (two per cent), 'more than one identity' (one per cent), 'retired' (one per cent), and 'householder' (one per cent).

Table 6: Stated Identity of Respondents

Identification	No.	%
Lifestyler	101	46
Hobby farmer	29	13
Smallfarmer	33	15
Horticulturalist/grower/farmer	23	11
Other	32	15
Total	218	100

These preliminary results show that the typical respondent was male, 50 years old and selected lifestyler as the best description of activity. The remaining characteristics to be considered in this section are: size of smallholding, commuting distances and destinations,

paid employment away from the smallholding, description of house, sewage treatment, and type of water supply.

Most of the smallholdings surveyed (134, or 62 per cent) were between 0.2 and five hectares but there were some (34, or 16 per cent) in excess of ten hectares. The mean total area of smallholdings was 5.65 hectares, while the median was 4.1 hectares and the standard deviation was 4.75 hectares. These figures indicate that the properties over ten hectares skew the size data to a considerable degree.

In terms of residency on the smallholdings, the majority of respondents (92 per cent) were owner-occupiers of their properties, while only 11 people (five per cent) reported they did not live on their smallholding at the time of completing the questionnaire. The average length of time the smallholders had lived on their smallholding was just over 10 years (\bar{x} 10.27, sd 9.72, n=200). This figure increased to almost 13 years (\bar{x} 12.83, sd 11.52, n=200) when respondents reported living on 'any' smallholding. For these individuals, length of residency on their present smallholding ranged from one year for 12 smallholders (six per cent), through to 70 years for one individual who had lived on that smallholding since 18 years of age. Sixty-four per cent of the respondents had lived on their present smallholding for ten years or less, with 25 per cent having resided on their smallholding for three years or less. These characteristics mean that the median length of time on the smallholding was 6.7 years. Another important characteristic was that 153 respondents (76 per cent) were living on their first smallholding, while a further 38 (19 per cent) had owned or occupied only one smallholding previously. The remaining five per cent of respondents had owned and/or occupied two or three smallholdings prior to the property they currently reside on.

Smallholdings, by definition, are located away from Christchurch and other places where smallholders go to shop so the smallholding lifestyle involves regular commuting. The median distance to central Christchurch from their smallholding was 26 kilometres (\bar{x} 28.39, sd 13.79, range 2 to 70, n=208). When the nine smallholders who travelled distances over 50 kilometres to Christchurch were removed, the median decreased to 25 kilometres (\bar{x} 26.96, sd 12.24, range 2 to 50, n=199). The closest town or shopping centres that the smallholders used regularly were in northwest Christchurch and Rangiora respectively. Table 7 shows details of the most regularly used destination through to the least regularly used destinations.

Table 7: Closest Town or Shopping Centre

Place	No.	%
Northwest Christchurch	68	34
Rangiora	57	29
Kaiapoi	16	8
Southeast Christchurch	14	7
Lincoln	11	6
Central City	10	5
Darfield	6	3
Leeston	6	3
Oxford	3	1
Ashburton	2	1
Southbridge	2	1
Woodend	2	1
Other	4	2
Total	201	100

The median distance travelled to the town or shopping centre the smallholders used most regularly was ten kilometres (\bar{x} 11.98, sd 10.32, range 0.5 to 57, n=210). The most commonly travelled distance to shop was ten kilometres by 22 (11 per cent) of the respondents, while 61 per cent of the respondents travelled ten kilometres or less to their regular shopping destination. The change to the above figures was negligible when the one person who travelled over 50 kilometres from their smallholding to shop was removed.

The majority of smallholders were employed away from the smallholding (or 'off-farm'). From the total of 211 respondents, 67 per cent were employed off-farm and within this group there were 107 (51 per cent) in full-time employment and 34 (16 per cent) in part-time employment. There was a similar pattern with the 210 respondents' partners, the majority (61 per cent) of whom also worked off-farm. There were 81 (39 per cent) employed full-time and 46 (22 per cent) employed part-time. Other adults living on the smallholding also pursued employment. Of the 218 smallholdings surveyed only 15 per cent had another adult, either a daughter, son, mother, or lodger, living in their household. Of these 32 people, 15 (47 per cent) were in full-time employment off the smallholding, while a further seven people (22 per cent) worked part-time, and the remaining ten (31 per cent) were not in any form of paid employment.

Type of employment was examined using a nine-category question adapted from the census and the results are shown in Table 8. Of the 147 respondents employed off-farm there were 30 (20 per cent) who identified themselves as administrators and 46 (31 per cent) who identified themselves as professionals. Similarly, 25 or 19 per cent of the 132 respondents' partners were administrators and 45 or 34 per cent had professional occupations. The distribution of other off-farm employment was spread evenly among the remaining seven occupational groups.

Table 8: Occupations of Respondents and their Partners

Category	Respondents		Partners	
	No.	%	No.	%
Administrator	30	20	25	19
Professional	46	31	45	34
Technician	8	5	10	8
Clerk	3	2	3	2
Service/Sales	5	3	6	4
Agricultural/Fisheries	11	8	7	5
Trades	12	8	13	10
Machines Operator	6	4	1	1
Labourer	3	2	2	2
Other	23	16	20	15
Total	147	100	132	100

Since most employment was pursued away from the smallholding, there were a variety of locations travelled to for work and these are shown in Table 9. There were 62 smallholders (47 per cent) who had their employment base in Christchurch, while 73 (64 per cent) of their partners were employed in Christchurch. The mean distance that the 174 respondents travelled to their place of work was just over 12 kilometres (\bar{x} 12.43, sd 15.25, range 1 to 60), while the respondents' partners commuted just under 11 kilometres (\bar{x} 10.56, sd 14.25, range 1 to 60, n=174). The distance to work almost exactly matches the distance to the town or shopping centre used most regularly.

Table 9: Employment Base of Respondents and their Partners

Place	Respondents		Partners	
	No.	%	No.	%
Rangiora	11	8	10	9
Northwest Christchurch	22	16	26	23
Ashburton	5	4	1	1
Lincoln	6	5	4	3
Central City	31	23	34	30
Rest of Christchurch	9	7	13	11
New Zealand wide/overseas	4	3	2	2
Selwyn District towns/rural areas	24	18	14	12
Waimakariri District towns/rural areas	21	16	10	9
Total	141	100	124	100

Few smallholders did not have off-farm work. Most smallholders, 176 or (81 per cent), and 155 partners or (71 per cent) were earning some form of income away from their smallholding as Table 10 shows. Note that 42 smallholders, and 63 of the respondents' partners, did not respond to the income question. There were 131 or 75 per cent who were relatively evenly spread among the first three brackets of income, earning under \$60,000 per annum, while 100 or 64 per cent of the respondents' partners were concentrated in the first two income brackets, earning under \$40,000 per year. It is also important to note that 17 respondents and nine partners were earning \$100,000 and above. The existence of this high off farm earning group suggests that these people have sufficient earnings from outside their smallholding, so using the land in an economically viable and/or productive way may not be a priority.

Table 10: Off-farm Income of Respondents and their Partners

Income Range	Respondents		Partners	
	No.	%	No.	%
Under \$20,000	42	24	52	33
\$20,000-39,999	47	27	48	31
\$40,000-59,999	42	24	29	19
\$60,000-79,999	22	12	10	7
\$80,000-99,999	6	3	7	4
\$100,000 and above	17	10	9	6
Total	176	100	155	100

Of the 204 valid responses, only 28 smallholders (13 per cent) had no source of off-farm income, while for the 202 partners of smallholders the number with no source of off-farm income rose to 47 (22 per cent).

Finally in this descriptive section some of the smallholding infrastructure is described. Table 11 shows the smallholders' description of their dwelling. There were 92 smallholders (44 per cent) who described the house they lived in as comfortable, well established and having all modern conveniences, while a further 61 (29 per cent) lived in new houses under ten years old with all modern conveniences. Fifteen respondents (seven per cent) reported living in an existing house with basic facilities, while a further 12 respondents (six per cent) identified their house as being adequate but they had plans in the future to renovate it. An additional

eight respondents (four per cent) were already undergoing house renovations at the time of the survey. Only five (two per cent) of the smallholders reported that they were living in temporary accommodation until they built or shifted a house onto the property.

Table 11: Smallholders' Description of their Dwelling

Dwelling type	No.	%
Temporary accommodation	5	3
Existing house on the land with basic facilities	15	7
Comfortable, well-established with all modern conveniences	92	44
Adequate house but plan to renovate	13	6
Currently undergoing alterations	9	4
New house built 5-10 years ago	26	12
New house with all modern conveniences less than 5 years old	35	17
Other	14	7
Total	209	100

Most smallholders (175, or 84 per cent) used a septic tank. A further 14 respondents (seven per cent) were part of the public sewerage system, while another 15 respondents (seven per cent) used either an EOT, Clearwater 90 or Biocycle Type for their sewage treatment. The remaining four respondents (two per cent) reported using some 'other' type of sewage treatment on their smallholding.

There was a range of different water supply types used by the 209 respondents. One hundred and twenty-two respondents (59 per cent) had their own well, 31 respondents (15 per cent) were supplied by a council managed rural water supply, while another 27 respondents (13 per cent) used the town supply. Fifteen respondents (seven per cent) shared a well with their neighbours and another eight respondents (four per cent) used the combination of a council managed rural water supply and their own well. Only four respondents (two per cent) of the respondents used some 'other' type of water supply than outlined above.

In summary, the results of this section show that 46 per cent of smallholders described themselves as lifestylers and 11 per cent described themselves as farmers or horticulturalists. Most of the remainder (28 per cent) described themselves as hobby farmers or smallfarmers. The median size of smallholding was four hectares. Nearly all smallholders were owner-occupiers, they had lived on their property for just over ten years, and the median distance approximately from Christchurch was 28 kilometres. Two-thirds worked off-farm and half were employed as administrators or professionals. Three quarters of all smallholders earned less than \$60,000 in off-farm income.

4.3 Motivations for the Smallholding Lifestyle

The questionnaire covered motivation for smallholding both when the respondents purchased their property and at the present time. The respondents were asked to rate how important they considered sixteen motivations using a five-point scale. This scale consisted of '(1) Not at all important', '(2) Slightly important', '(3) Moderately important', '(4) Very important' and '(5) Extremely important'. The mean scores for all sixteen factors are presented in the Table 12 below. Comparison of the scores in the two columns shows that smallholders' motivations have only changed a little, if at all, between purchase and the present time. The four most important motivations, with a score of four or more, identified by smallholders were: peace and quiet, tranquillity; clean air, no smog; space, privacy, openness, no close neighbours; and rural or country living. Another grouping, with scores of 3.1-3.5, followed

this group of most important motivations and included lifestyle elements of safety, less pressure, larger lot size and place for animals. The least important smallholding motivation was tax deduction.

Table 12: Mean Scores of Motivations for the Smallholding Lifestyle

Motivation	At Purchase	At Present
Rural or country living	4.1	4.0
Peace and quiet, tranquillity	4.2	4.2
Space, privacy, openness, no close neighbours	4.1	4.1
Clean air, no smog	4.1	4.2
Safe and healthy place to raise children	3.5	3.4
Can have animals	3.1	3.1
Less pressure, relaxing	3.1	3.2
Wanted a larger section than you can get in a city or town	3.2	3.2
Place to retire	2.6	2.7
To generate future potential income and/or retirement income	2.7	2.9
A chance to be creative	2.6	2.6
To generate regular income from the land	2.6	2.6
Employment for myself or family	2.1	2.2
The challenge of a smallholding	2.5	2.4
Learn about farming	2.1	2.1
As a tax deduction	1.6	1.7

Clearly, smallholder motivation encompasses a range of non-productive values and this raises the question of how they compare production versus lifestyle. Two questions assessed smallholders' perceptions of the most important factor in the balance between lifestyle and production, first when they bought their smallholding and second at the current time. In both instances, smallholders overwhelmingly favoured lifestyle over production or perceived both to be equally important (Table 13). At the time of purchase, there were 100 smallholders (48 per cent) who indicated that the smallholder lifestyle was more important than production. This proportion did not change for the same question but for the current time. Similarly, 82 (39 per cent) of smallholders perceived both the lifestyle and production as equally important at the time of purchase, and this rose slightly to 88 (43 per cent) at the current time. Conversely, the number of respondents favouring production over lifestyle was much lower both at the time of purchase (28, or 13 per cent) and at the current time (20, or nine per cent). These evaluations support the earlier finding that 46 per cent of respondents perceive their identity as lifestylers and that 11 per cent as farmers or horticulturalists.

Table 13: Comparison of Lifestyle and Land Use Preference

Preference	When Purchased		At Present	
	No.	%	No.	%
Lifestyle	100	48	98	48
Land Use	28	13	20	9
Both	82	39	88	43
Total	210	100	206	100

Given that smallholders motivations were mainly for lifestyle rather than land use it is relevant to assess if employment was a factor in smallholding motivation. Table 14 shows the

importance of generating employment at the time of purchase and at the present time. The requirement of generating full-time employment from the smallholding at the time of purchase was, for the most part, not a particularly important consideration. Two-thirds of respondents (143, or 68 per cent) indicated that this factor was not at all important. In addition, 40 respondents (18 per cent) rated full-time employment at purchase as only slightly or moderately important. Thus, only 29 respondents (14 per cent) considered the generation of full-time employment of their smallholding at the time of purchase as very or extremely important. This group decreases to 26 or twelve per cent for important at present. Again, these proportions are similar to the group of 11 per cent who chose farmer or horticulturalist.

Table 14: Importance of Generating Full-time Employment

Level of Importance	When Purchased		At Present	
	No.	%	No.	%
Not at all Important	143	68	139	68
Slightly important	20	9	18	9
Moderately important	20	9	23	11
Very important	14	7	11	5
Extremely important	15	7	15	7
Total	212	100	206	100

These results did not change significantly with regard to the requirement of generating full-time employment from the smallholding at the present time. Indeed, the figures are remarkably similar.

The low level of importance assigned to the generation of full-time employment from the smallholding, either at the time of purchase or presently, is reflected in the results regarding the number of years until full-time employment would be generated from the smallholding. There were 152 (76 per cent) of smallholders who indicated that they had no intention of ever generating full-time employment from their smallholding. Only nine respondents (five per cent) were currently generating full-time employment, or thought they would be in a position to do so within one year. The remaining 40 respondents (19 per cent) were between two and ten years from generating full-time employment from their smallholding.

In summary, the main motivations of smallholders were to seek peace and quiet, clean air, privacy, openness and country living. Most rated lifestyle ahead of land use and only twelve per cent considered that generating employment at present from their smallholding was very or extremely important. There is good correspondence between the motivation data and the data from the earlier section on smallholder identity. There were 11 per cent who chose 'farmer' and 9-13 per cent who emphasised land use ahead of lifestyle, and 12 per cent who rated the generation of full-time employment as very or extremely important. Nineteen per cent of smallholders expected to generate full-time employment within two to ten years time.

4.4 Smallholding Land Use

Land use was examined in the questionnaire with a one-page question listing a wide variety of land uses and asking for land area and approximate income generated by that use. The first question covered residential, garden or recreational land use. Of the 218 questionnaires returned by smallholders, 77 did not identify the area of land in residential, garden, or recreational use. There were 11 respondents who did not actually live on their smallholdings and this accounts for why they did not answer this question. However, the remaining 66 did

not respond to this question sufficiently. This shortcoming may be a consequence of the questionnaire design, in which this question was the first in the section on land use. The temptation may have been, therefore, to leave aside residential, garden, or recreational land as the respondent considered economic land uses only.

The remaining 141 respondents (65 per cent of all respondents) provided sufficient information in response to this question about residential land. Almost two-thirds of these smallholdings (87, or 62 per cent) have residential, garden, or recreational land of less than one hectare. A further 49 respondents (35 per cent) had one and two hectares in residential use, leaving only five smallholdings (three per cent) with residential use greater than two hectares in size.

Table 15 shows the land-use data reporting the numbers who selected each option and presents the land uses in order from most to least frequently selected.

Table 15: Land Use and Value of Production

Land Use	Land Area (Ha)		Gross Sales 1998/99 (\$)		Production for Own Use 1998/99 (\$)	
	No.	Avg.	No.	Avg.	No.	Avg.
Residential, garden, and/or recreation	141	0.9				
Grazing: beef and sheep	92	5.1	40	3,893	20	556
Other animals: deer, goat, calf rearing, pigs, poultry and others	74	3.2	23	29,497	20	2,350
Forestry/firewood: pine, macrocarpa, ash, gum, oak, birch and other	48	2.1	3	2,267	12	528
Horticulture: open air flowers, glasshouse, market garden and nursery	22	1.0	13	18,092 ¹	4	850
Tree crops: walnuts, hazelnuts, chestnuts and other	23	1.4	2	1,600	2	600
Business activity, other than farming or horticulture: tourism, arts and crafts	18	0.7	13	30,777	n.a.	n.a.
Crops	16	5.5	12	4,872	4	863
Fruit: berry, pip and stone fruit	12	1.8	5	55,240	3	1,733
Dairy	4	5.2	2	3,300	4	2,400
Vineyards	3	1.2	2	4,500	1	500
Other land use not previously recorded	13	5.2	4	1,838	2	750
Average		5.7		22,132		1,750

Note: 1. The actual 1998/99 horticulture mean sales were \$131,086, which included one smallholder earning \$1.6 million in sales. This figure was excluded in the above table because it exceeded all other gross sales by \$1.45 million.

The largest single type of land use among the 218 respondents was grazing, with 92 smallholders (42 per cent) indicating that they had some land in this category. Of these 92 smallholders this grazing land was predominantly (63 per cent) in small plots of five hectares or less, while only 21 per cent of smallholders had more than ten hectares in grazing. The mean area in grazing was just over five hectares, while the median was exactly 3.5 hectares.

The second most predominant form of land use amongst smallholders was the keeping of other animals. There were 74 respondents (34 per cent) who indicated they had one or more of the seven types of animals on their property. Four-fifths of these 74 smallholders (59, or 80 per cent) have land of five hectares or less for animals, while just three properties had more than ten hectares. One-half of the smallholdings with animals had less than two hectares for this purpose, which was the median, while the mean area was slightly larger at 3.15 hectares.

The incidence of forestry as a land use on Canterbury smallholdings is the third most frequent amongst the eleven categories employed in this study. Forty-eight of the 218 respondents (22 per cent) indicated they had land in forestry. Almost two-thirds of the 48 respondents (30, or 63 per cent) had properties including only one hectare of forestry or less. At the larger end of the scale, only two respondents (four per cent) had forestry areas of greater than ten hectares. Thus, both the mean area of forestry land was low, at only just under 2.1 hectares, while the median was just one hectare. That the median was lower than the mean indicates that small plots of forestry land are predominant in smallholdings. However, given that the average size of all smallholdings was 5.7 hectares it would appear that in some cases one third of the smallholding was in forestry.

The fourth most predominant land use was horticulture, defined as flowers, glasshouse, market garden, or nursery. There were 22 smallholdings (ten per cent) with land in horticultural production. However, the size of production units was small. Two-thirds of these areas (14, or 64 per cent) were one hectare or less, while just five (23 per cent) were larger than two hectares. This distribution of area in horticulture has a median of just 0.35 hectares and a mean of one hectare.

There were 23 smallholdings (11 per cent) with some area in tree crop production, but these are also not a particularly large-scale activity. The largest area of tree crop production was 5.5 hectares, although the mean was only 1.42 hectares and the median just one hectare. Business activities other than farming and horticulture on smallholdings was, surprisingly, a more frequent land use than other more obvious categories discussed below. Eighteen of the 218 respondents (eight per cent) indicated they had land being utilised in such activities as rental or hire accommodation, arts and crafts, tourism, or other businesses. There were 16 smallholdings (seven per cent) with land in crops. The remaining land uses were fruit production, dairying and vineyards.

The classification of land uses listed in Table 15 can be reordered to add tree crops, fruit and vineyards to the horticultural category. This brings the number in horticulture (broadly defined) to 60 or 21 per cent of the total which makes it the most frequent land use after grazing and other animals.

Having reviewed the land uses it is appropriate to examine the value of production generated by them. The question on gross smallholding income from all land uses showed that nearly two-thirds of the 218 respondents (134, or 62 per cent) did not receive any income from their smallholding activities. Of the 84 smallholders who did receive income from their smallholding, nearly one-half (40, or 48 per cent) indicated that the income was \$5,000 or less. In addition, another 18 respondents (21 per cent) indicated they received between \$5,001 and \$10,000 per annum. Thus, just over two-thirds of those smallholders (58, or 69 per cent) who did receive an income from their smallholdings earned \$10,000 or less. On the other hand, nine smallholders (11 per cent) earned more than \$50,000 from their smallholding activities, with the highest earner having an income of \$1.6 million. This extreme income figure was removed from the calculation of the following general statistics as it introduced a significant level of distortion. The median of these data was \$5,500, while the

lower quartile was \$1,250 and the upper quartile was \$14,500. All these statistics fit the above information, but the mean of \$22,133 is of limited utility and is clearly skewed significantly by the presence of the eight high income figures of \$50,000 or more giving a standard deviation of \$52,651. The point is that smallholder income from their properties is rather low, with a high proportion of smallholdings providing only a limited income and a small proportion of smallholdings providing a significant income.

The data on value of production for each land use are also often distorted by a few cases that had significant sales. This was the case for horticulture, other animals, business activities, and fruit growing which all had average gross sales of over \$18,000. The median for these land use sales were: \$7,500, \$5,000, \$8,000, and \$5,000 respectively. Similarly the value of production for own use data were sometimes distorted by a few high value cases. Most production for own use is from other animals, fruit, and dairy farming. With these reservations in mind, Table 15 shows that most sales were from other animals, horticulture (including fruit), and business activities.

Now that that actual production and value of production have been considered it is appropriate to examine change in production over time. The questionnaire asked smallholders to compare production two or more years ago with production at the current time. There were 94 (57 per cent) who had roughly equivalent over time. There were 50 respondents (30 per cent) who had experienced a drop in production, while only 22 (13 per cent) recorded an increase in production. In terms of a comparison between current production and expected future production in two years, 89 of the 174 valid responses (51 per cent) indicated that their smallholding production would remain the same between now and then. A smaller number of 73 smallholders (42 per cent) believed their production would increase over the next two years, while just 12 (seven per cent) suggested their production was likely to decrease over that time.

The above data on production change are consistent with data on capital investments. Nearly one-half of the 203 valid responses (93, or 46 per cent) indicated that they had made no capital investments within the last year. An additional 62 respondents (31 per cent) had made capital investments in their smallholdings within the past twelve months to the value of \$5,000 or less. The frequency of smallholder capital investment decreased, as one would expect, as the value of that investment increased. Thus, only 14 per cent of respondents invested between \$5,000 and \$9,999 over the last year, while just ten per cent spent more than \$10,000 in the same period. A notable subset of this last category is the presence of five respondents (two per cent) that invested more than \$50,000 in their smallholding property in the last year.

Also related to production change were perceived constraints on investment in production. Table 16 shows the mean importance score for lack of capital, level of debt and lack of time. The question used the following five-point scale: '(1) Not at all important', '(2) Slightly important', '(3) Moderately important', '(4) Very important', and '(5) Extremely important'.

Table 16: Importance Score for Constraints on Investment in Production

Constraint	Mean Score
Lack of capital	2.7
Level of debt	2.4
Lack of time	3.1

The importance or otherwise of the lack of capital as a constraint on investment to production showed no clear tendency. The biggest group of 54 respondents (29 per cent) believed that lack of capital was not at all important in constraining production investment. In addition, 27 (14 per cent) and 46 (25 per cent) respondents indicated that lack of capital was only slightly or moderately important, respectively, in constraining their investment in production. In total, more than two-thirds of smallholders (127, or 68 per cent) did not regard lack of capital as a significant constraint on investment in production. On the other hand, 40 (21 per cent) of respondents considered lack of capital to be a very important constraint on investment in production and 20 (11 per cent) considered lack of capital to be an extremely important constraint on investment in production.

The level of debt as a constraint on investment was less important (2.0) compared to lack of capital (2.7). For example, 65 of the smallholders (39 per cent) indicated that the level of debt was not at all important in constraining investment in production. Moreover, and similar to the result above, a further 28 (17 per cent) and 28 (17 per cent) respondents indicated that a level of debt was only slightly or moderately important, respectively, in constraining their investment in production. Thus, nearly three-quarters of smallholders (121, or 73 per cent) did not regard their level of debt as a significant constraint on investment in production. On the other hand, 31 (18 per cent) and 15 (nine per cent) respondents considered level of debt, respectively, to be a very or extremely important constraint on investment in production.

In contrast, lack of time was a very important constraint on investment in production, receiving a score of 3.1. For example, 47 (26 per cent) and 28 (16 per cent) of the 178 valid responses indicated that the lack of time, respectively, was a very or extremely important constraint on investment in production. In addition, a further 51 respondents (29 per cent) indicated that the lack of time was a moderately important constraint on investment in production. Therefore, the great majority of respondents (71 per cent) identified time as an investment constraint. Less than one-third of respondents (52, or 29 per cent), therefore, rated the lack of time as only slightly (19, or 11 per cent) or not at all important (33, or 18 per cent) as a constraint on investment in production.

The data above have established what the nature of the land uses were on the smallholdings and examined production changes and constraints. Considered now is how this land use manifests in work on the smallholding. Most of the smallholders undertook the majority of work (either paid or unpaid) on the smallholding themselves. For 85 per cent of respondents this was done in an unpaid rather than paid capacity. A slightly higher proportion of the respondents' partners (90 per cent) also worked in an unpaid rather than paid role on the property, as did other family members (94 per cent). Very few smallholders employed paid employees or contracted management services. The details of these findings are considered below and some of the relevant data are shown in Table 17 below.

Most smallholders (185, or 87 per cent) did not reply to the question regarding the number of paid hours per week because very few did paid work on the smallholding. The remaining 27 (13 per cent) were distributed sparsely but reasonably evenly from one paid hour per week to 70 paid hours per week. Most smallholders responded to the question about unpaid work. There were 170 who stated that they did unpaid work on the smallholding. Of these, there were 94 (55 per cent) who worked only between one and ten unpaid hours per week on their property, while a further 36 (22 per cent) who worked between 11 and 20 unpaid hours per week.

Table 17: Numbers of Smallholders Who Indicated Paid and Unpaid Work Measured in Hours per Week

Category	Paid		Unpaid	
	No.	Avg.	No.	Avg.
You	27	23	170	17
Your partner	17	21	125	12
Other family member	7	7	33	8
Other	26	19	6	13
Contractor	4	27	0	0
Total	81		334	

Similar results were obtained from the smallholders about their partners. The number of paid hours worked per week on the property by the partner of the respondent was also low. Most smallholders (195, or 90 per cent) did not reply to the question about their partners paid work on the smallholding. There were 17 smallholdings on which the partner was in paid work, and this work was between one and 70 paid hours per week on the property. The most common numbers of paid work hours undertaken by respondents' partners was ten hours per week, by three people (18 per cent), while the same number of respondents' partners were paid to work 20 hours each week. There were 125 partners who undertook unpaid work, and 82 (66 per cent) worked between one and ten unpaid hours per week on the property, while another 27 (21 per cent) worked between 11 and 20 hours per week. Thus, only 16 partners (13 per cent) worked more than 21 unpaid hours per week on their smallholdings.

In summary, grazing was the most common land use on smallholdings, followed by other animals and then forestry. Reclassifying the land use categories shows that horticulture (broadly defined) was the third most frequent land use. Nearly two-thirds of smallholders did not receive any income from their land. For those that did, 48 per cent had a gross annual income of \$5,000 or less, but there were 11 per cent who received gross income of over \$50,000. Changes in level of production were low and generally there were either no or low levels of capital investments. The main constraint on investment was lack of time. Nearly all of the work on smallholdings was done on an unpaid basis and for just over one-half of the smallholders, and their partners, was between one to ten hours per week.

4.5 Satisfaction with Smallholding Lifestyle and Intention to Move

The majority of smallholders were satisfied with their lifestyle and size of smallholdings at the time of the survey. Table 18 below shows that there was a total of 184 respondents (87 per cent) who indicated either satisfaction (67, or 32 per cent), strong satisfaction (60, or 28 per cent), or very strong satisfaction (57, or 27 per cent) with their current smallholding lifestyle. Fourteen respondents (seven per cent) were ambivalent with regard to the smallholding lifestyle, and 13 respondents (six per cent) indicated dissatisfaction, strong dissatisfaction, or very strong dissatisfaction with the smallholding lifestyle.

Smallholders were asked if they were satisfied with the size of their smallholding. There were 146 (74 per cent) who expressed satisfaction, while the remaining 51 respondents (26 per cent) expressed dissatisfaction. A total of 66 respondents however indicated their preferred smallholding size. Among this latter group were 28 respondents (42 per cent of this subgroup) with a preferred 'smallholding' size of greater than ten hectares, 12 (18 per cent) who chose 2-4 hectares, and 13 (20 per cent) who chose less than one hectare.

Table 18: Level of Satisfaction with Smallholding

Level	No.	%	No.	%
Very strongly dissatisfied	4	2	13	6
Strongly dissatisfied	1	1		
Dissatisfied	8	3		
Neither dissatisfied nor satisfied	14	7	14	7
Satisfied	67	32	184	87
Strongly satisfied	60	28		
Very strongly satisfied	57	27		
Total	211	100	211	100

Another way to assess satisfaction with smallholding is to ask smallholders what they see as the disadvantages of their rural lifestyle, at the present time. The respondents were asked to rate eleven factors for their level of importance using the five-point scale, which consisted of (1) 'Not at all important', (2) 'Slightly important', (3) 'Moderately important', (4) 'Very important' and (5) 'Extremely important'. The mean scores for all eleven factors are presented in the Table 19. The five most important disadvantages were rated between moderately and slightly important. They include the possibility of further subdivision and/or closer neighbours (2.8); chemical or spray drifts from farmers (2.7); time required for work, chores, property maintenance (2.4); unexpected costs and/or problems with local authorities (2.3); and travelling distance to work and/or transporting children (2.1).

Table 19: Disadvantages of the Rural Lifestyle Now

Disadvantages of the rural lifestyle	Mean Score
Possibility of further subdivision occurring and/or closer neighbours	2.8
Chemical or spray drifts from farmers	2.7
Time required for work, chores and/or property maintenance	2.4
Unexpected costs and/or problems with local authorities	2.3
Distance to travel to work and/or transport children, teenagers	2.1
Can't subdivide any further	1.8
Lack of services (water/sewerage/refuse)	1.8
Animal manure on the roads	1.7
Land use conflict with established farmers and/or their attitudes to newcomers	1.7
Limited number of local clubs, organisations, sport and/or recreation facilities	1.6
Distance to primary and/or secondary schools	1.6

Another question relating to satisfaction with smallholding asked how much longer they intended to stay on their smallholding. The question allowed for respondents to state a number of years or to state 'indefinitely'. Nearly three-quarters of the respondents (148, or 71 per cent) indicated that they intend to remain on their smallholding indefinitely. Another 24 respondents (12 per cent) intend to continue smallholding for ten years or more, while the remaining 36 respondents (17 per cent) said they would do so for less than ten years. These results indicate a high level of satisfaction with the smallholding lifestyle

Satisfaction with smallholding was examined further by asking if smallholders had any intention of leaving their current property within the next five years. There were 171 respondents (81 per cent) who indicated they had no intention to leave their current property

within the next five years and 41 respondents (19 per cent) who thought they would leave their current property within five years. These figures indicate that smallholding does appear to be a long-term lifestyle option for the majority of respondents.

There were actually 45 respondents (21 per cent) who gave details about where they might move to if they left their smallholdings in the next five years. Table 20 shows the relevant data. A move to a residential section in a town or city within the next five years was likely for 15 respondents (seven per cent) and there were small percentages choosing the other options.

Table 20: Preferences and Intentions to Move in Next Five Years

Preference if move	No.	%
Residential section in town or city	15	7
Rural residential section (0.1-0.5 ha)	7	3
Rural residential section (0.5-1.0 ha)	3	1
Smaller smallholding (1-4 ha)	8	4
Medium smallholding (4-10 ha)	5	3
Larger smallholding (10-20 ha)	3	1
Farm or other	4	2
Subtotal	45	21
No intention of moving	164	79
Total	209	100

When asked a hypothetical question about their preferences if they were ever to move, more smallholders selected the options for moving. Table 21 shows that 14 respondents (seven per cent) refused to enter into the spirit of the hypothetical question and stated they had no intention of ever moving. Just over one-quarter of respondents (55 people, or 27 per cent) indicated they might move to a residential section in a town or city. There were 28 and 13 respondents respectively who might move to rural residential sections of either 0.1-0.5 hectares or 0.5-1.0 hectares in size, and this group constitutes 20 per cent of the total who responded to this hypothetical question. Just over one-third (34 per cent) might move to a smallholding and there was an indication that slightly more would prefer either 1-4 hectares or 10-20 hectares. The remainder might move overseas or to a farm.

Table 21: Preferences and Intentions if Ever Move

Preference if move	No.	%	%
Residential section in town or city	55	27	27
Rural residential section (0.1-0.5 ha)	28	14	20
Rural residential section (0.5-1.0 ha)	13	6	
Smaller smallholding (1-4 ha)	26	13	34
Medium smallholding (4-10 ha)	16	8	
Larger smallholding (10-20 ha)	27	13	
Overseas	15	7	11
Farm or other	8	4	
Subtotal	188	93	
Refused to consider ever moving	14	7	
Total	202	100	

Additional analyses show that those who might move to a residential section were significantly older than the other groups and those who would move to a smallholding were younger (Table 22). Thus, size preference is influenced, not surprisingly, by age so that older

smallholders can be expected to consider residential sections. This may be because they seek less work or they may want to retire.

Table 22: Mean Age by Size Preference of Land if They Were Ever To Move

Hectares	Measure	Age
Residential section (1)	Mean	55.2
	Std. dev.	11.4
	Total No.	54
Rural residential section (2)	Mean	50.2
	Std. dev.	9.6
	Total No.	40
Smallholding (3)	Mean	46
	Std. dev.	8.4
	Total No.	69
Means with significant differences (t-test, equal variances assumed, $p < 0.05$)		1-2, 1-3, 2-3

Level of interest in residential properties was examined by asking smallholders to think back to the time that they bought their smallholding. They were asked if, at that stage, they considered buying a residential section (either in a new subdivision with lot sizes less than one hectare or a section in a town or city). There were 170 respondents (82 per cent) who did not consider buying a residential section before purchasing their current smallholding, and 38 respondents (18 per cent) who did. Further, there were 33 respondents of these respondents who actually looked at such a section.

The final question on this topic of residential sections asked smallholders if they would ever consider moving to a residential section. There were 86 respondents (44 per cent) who said yes and 109 (56 per cent) who said no. Thus, a slight majority of smallholders indicated that they would not consider ever moving to a residential section in the future. There was a significant relationship (Chi square 12.91, df 4, $p < 0.05$) between the current size of property the respondent lived on and whether they would consider moving to a residential section. Table 23 shows that the majority of those who lived on properties between 0.1 and 1.99 hectares would consider a residential section whereas the majority of people living on a smallholding between two and 20 hectares would not consider ever moving to a residential section.

Table 23: Residential Section Preferences by Size of Smallholding

Ever Move?	Size range of smallholding in hectares					Subtotal	%
	0.1-0.99	1-1.99	2-3.99	4-9.99	10-20		
Yes	16	11	17	24	18	86	45
No	7	5	23	46	26	107	55
Total	23	16	40	70	44	193	100

In summary, the majority of smallholders were satisfied with their lifestyle and the size of land. The two most important disadvantages were further subdivision and chemical and spray drift. Nearly three-quarters intended to stay on their smallholding indefinitely and 81 per cent said they had no intention of leaving their smallholding in the next five years. When asked if they would ever move, there were 27 per cent who indicated they might move to a residential

section and this group was older than the others. However, there were 34 per cent who would prefer a smallholding if they were ever to move. When asked if they would ever consider a residential section there were 44 per cent who said yes and 56 per cent who said no; those saying yes were on smaller smallholdings than the others.

4.6 Comparison of Lifestylers, Smallfarmers and Farmers

The sections above have considered responses from all smallholders and not focused on any subgroups. However, the sample includes people who selected different options when asked to choose the best term to describe themselves. Table 6, presented earlier, showed that 101 respondents (46 per cent) chose ‘lifestyler’, 62 (28 per cent) chose ‘hobby farmer’ or ‘smallfarmer’, and 23 (11 per cent) chose ‘horticulturalist/grower/farmer’ (here referred to as ‘farmers’). It must be remembered that the initial list of smallholding properties sampled was not confined just to smallholders but included people who would be in full-time horticultural production. It is possible that there is a gradation in the degree of involvement in production from the land with lifestylers having least involvement, smallfarmers having some involvement and farmers having most involvement. The data presented in this section will address this issue and show that intensity of land use is associated with type of smallholder.

Among the 23 farmers, there were 11 (48 per cent) who were not employed off farm and were very likely to be fully engaged in production from their land. Further, there were eight (35 per cent) who had full-time employment off farm and three (13 per cent) who had part-time work off farm. In this group of farmers is a high proportion who work off farm and they may not be typical of farmers elsewhere.

Table 24 shows that smallholders and farmers have a larger area in production compared to lifestylers. The table shows that most of the lifestyler holdings are less than four hectares while most of the smallholder and farmer holdings are in the larger sizes of 4-9.9 hectares or over ten hectares (Chi-square 32.86, df 6, $p < 0.001$). The table also shows the median size of holding for each type of smallholder. The median size of the lifestyler holding is much smaller than the others.

Table 24: Type of Smallholder by Size Range of Hectares in Production

Size range	Lifestyler		Smallholder		Farmer		Total	
	No.	%	No.	%	No.	%	No.	%
Under 1 ha	42	42	6	10	3	13	51	27
1-3.99 ha	29	29	13	21	6	26	48	26
4-9.99 ha	20	20	22	36	8	35	50	27
Over 10 ha	10	10	21	34	6	26	37	20
Total	101	100	62	100	23	100	186	100
Mean Size	3.8		8.0		7.9		1-2, 1-3 ¹	

Note: 1. Mann-Whitney U test for differences in means (skewed distributions) significant at $p < 0.05$.

The smallfarmer and farmer smallholdings have made a greater investment of capital compared to the lifestylers (Table 25) (Chi-square 16.12, df 4, $p < 0.01$). The data show that more farmers than smallfarmers invest over \$5,000 but this difference is not statistically significant (Chi-square 2.71, df 2, $p > 0.05$).

Table 25: Type of Smallholder by Capital Investment Made in the Last Year

Level of Investment	Lifestyler		Smallfarmer		Farmer		Total	
	No.	%	No.	%	No.	%	No.	%
None	57	60	23	38	5	23	85	48
Up to \$4,999	26	27	22	38	8	36	56	32
Over \$5,000	12	13	15	25	9	41	36	20
Total	95	100	60	100	22	100	177	100

Tables 26 and 27 show that lifestylers attach less importance to generating full-time employment from their smallholding both at the time of purchase (Chi-square 13.28, df 4, $p < 0.01$) and at the present time (Chi-square 26.00, df 4, $p < 0.01$). Note however that there were 29 per cent of farmers who stated that generation of full-time employment at present was not at all important. Also shown in both tables is the mean importance score. For assessment of importance of generating full-time employment at time of purchase, there is a significant difference between lifestylers and farmers only. For assessment now there is a significant difference between lifestylers and farmers, and between smallfarmers and farmers. Thus on the issue of generating employment now, the smallfarmers are similar to lifestylers.

Table 26: Type of Smallholder by the Importance of Generating Full-time Employment from the Smallholding at Time of Purchase

Importance	Lifestyler (1)		Smallfarmer (2)		Farmer (3)		Total	
	No.	%	No.	%	No.	%	No.	%
Not at all	76	78	39	63	9	41	124	68
Slightly/ Moderately	15	15	13	21	7	32	35	19
Very/ Extremely	7	7	10	16	6	27	23	13
Total	98	100	62	100	22	100	182	100
Mean Score	1.51		1.85		2.45		1-3¹	

Note: 1. T-test significant at $p < 0.05$.

Table 27: Type of Smallholder by the Importance of Generating Full-time Employment from the Smallholding Now

Importance	Lifestyler (1)		Smallfarmer (2)		Farmer (3)		Total	
	No.	%	No.	%	No.	%	No.	%
Not at all	75	80	39	63	6	29	120	67
Slightly/ Moderately	12	13	18	29	8	38	38	21
Very/Extremely	7	7	5	8	7	33	19	11
Total	94	100	62	100	21	100	177	100
Mean Score	1.46		1.73		2.86		1-3, 2-3¹	

Note: 1. T-test significant at $p < 0.05$.

Also consistent with the above data are the results in Table 28 showing that more lifestylers have full-time work off farm and more farmers have no work off farm (Chi-square 10.91, df 4, $p < 0.05$). Smallfarmers appear to be somewhat in between lifestylers and farmers.

Table 28: Type of Smallholder by Off-farm Employment Status

Work status	Lifestyler		Smallfarmer		Farmer		Total	
	No.	%	No.	%	No.	%	No.	%
Full-time	58	59	29	47	8	36	95	52
Part-time	10	10	16	26	3	14	29	16
Not employed off-farm	30	31	17	27	11	50	58	32
Total	98	100	62	100	22	100	182	100

While farmers said that generating employment was important and most were not employed off farm, there were few that acknowledged the actual paid work on their smallholding. Table 29 shows the paid and unpaid hours per week for all three types of smallholders. Only five farmers recorded any paid work while 17 recorded unpaid work. It is possible that some of these farmers were making a point that they did not receive regular wages even though they were engaged in a business activity. The numbers in paid work are all very low and can not give any indication of differences by type of smallholder. The table suggests that more lifestylers have unpaid work less than ten hours per week compared to the other two types, but this difference was not statistically significant (Chi square, lifestylers cf. smallfarmers, 1.25, df 4, NS).

Table 29: Type of Smallholder by Paid and Unpaid Hours Worked per Week on the Smallholding

Hours per Week	Lifestyler				Smallfarmer				Farmer			
	Paid		Unpaid		Paid		Unpaid		Paid		Unpaid	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<10	5	50	48	61	2	33	28	51	1	20	6	35
10-20	1	10	16	19	2	33	14	25	1	20	4	27
>20	4	40	15	18	2	33	13	24	3	60	7	41
Total	10	100	79	100	6	100	55	100	5	100	17	100

Table 30 shows that at the time of purchase more of the lifestylers stated that lifestyle was more important than land use (Chi-square 41.23, df 4, $p < 0.001$) compared to smallfarmers and farmers, and the latter have similar assessments of comparison between lifestyle and land use. However, there were still 25 per cent of farmers who stated that lifestyle was more important than land use. Very similar results were obtained for the comparison of lifestyle with land use at the present time (Table 31) (Chi-square 40.56, df 4, $p < 0.001$).

Table 30: Type of Smallholder by Comparison Between Lifestyle and Land Use When Purchased the Smallholding

Most important	Lifestyler		Smallfarmers		Farmer		Total	
	No.	%	No.	%	No.	%	No.	%
Lifestyle	71	72	16	26	5	25	92	50
Land use	3	3	13	21	3	15	19	11
Both equally important	25	25	33	53	12	60	70	39
Total	99	100	62	100	20	100	181	100

Table 31: Type of Smallholder by Comparison Between Lifestyle and Land Use at Present

Most important	Lifestyler		Smallfarmer		Farmer		Total	
	No.	%	No.	%	No.	%	No.	%
Lifestyle	67	38	19	32	2	10	88	50
Land use	2	2	8	13	5	24	15	8
Both equally important	27	28	33	55	14	67	74	42
Total	96	100	60	100	21	100	177	100

Finally, Table 32 shows the average farm income received by each type of smallholder. The T-tests show that the difference between smallfarmers and farmers only is significant. Very few of the lifestylers have farm income. These results are consistent with the results above.

Table 32: Mean Farm Income by Type of Smallholder

	No.	Mean Income	Std. Dev.
Lifestyler	22	19,356	46,188
Smallfarmer	34	10,82	20,313
Farmer	13	50,592	97,452
T-test sign. at p < 0.05			2-3

In summary, there are three types of smallholders: lifestylers, smallfarmers and farmers. The farmers, in contrast to lifestylers, are on larger holdings, have made a greater investment of capital and attach more importance to generating full-time employment. Most farmers rate both lifestyle and land use as equally important. Lifestylers are on smaller holdings, have made little or no capital investment and rate employment generation as not at all important. Between these two extremes are smallfarmers who have holdings of similar size to farmers, have made modest capital investments and, especially at time of purchase, emphasise the importance of generating full-time employment. The data also show that there is considerable overlap between the three groups so that some lifestylers are similar to farmers and vice versa.

4.7 Conclusion: Summary of Results

The results of the survey show that 46 per cent of smallholders described themselves as lifestylers and 11 per cent described themselves as farmers or horticulturalists. Most of the remainder (28 per cent) described themselves as hobby farmers or smallfarmers. The median size of smallholding was four hectares. Nearly all smallholders were owner-occupiers, they had lived on their property for just over ten years, and the median distance approximately from Christchurch was 28 kilometres. Two-thirds worked off-farm and half were employed as administrators or professionals. Three quarters of all smallholders earned less than \$60,000 in off-farm income.

The main motivations of smallholders were to seek peace and quiet, clean air, privacy, openness and country living. Most rated lifestyle ahead of land use and only twelve per cent considered that generating employment at present from their smallholding was very or extremely important. There is a strong relationship between the motivation data and the data from the earlier section on smallholder identity. There were 11 per cent who chose 'farmer' and 9-13 per cent who emphasised land use ahead of lifestyle, and 12 per cent who rated the generation of full-time employment as very or extremely important. Nineteen per cent of smallholders expected to generate full-time employment within two to ten years time.

Grazing was the most common land use on smallholdings, followed by other animals and then forestry. Reclassifying the land use categories shows that horticulture (broadly defined) was the third most frequent land use. Nearly two-thirds of smallholders did not receive any income from their land. For those that did, 48 per cent had a gross annual income of \$5,000 or less, but there were 11 per cent who received gross income of over \$50,000. Changes in level of production were low and generally there were either no or low levels of capital investments. The main constraint on investment was lack of time. Nearly all of the work on smallholdings was done on an unpaid basis and for just over one-half of the smallholders, and their partners, this was between one to ten hours per week.

The majority of smallholders were satisfied with their lifestyle and the size of land. The two most important disadvantages were further subdivision and chemical and spray drift. Nearly three-quarters intended to stay on their smallholding indefinitely and 81 per cent said they had no intention of leaving their smallholding in the next five years. When asked if they would ever move, there were 27 per cent who indicated they might move to a residential section and this group was older than the others. However, there were 34 per cent who would prefer a smallholding if they were ever to move. When asked if they would ever consider a residential section there were 44 per cent who said yes and 56 per cent who said no; those saying yes were on smaller smallholdings than the others.

There were three types of smallholders: lifestylers, smallfarmers and farmers. The farmers, in contrast to lifestylers, are on larger holdings, have made a greater investment of capital and attach more importance to generating full-time employment. Most farmers rated lifestyle and land use as equally important. Lifestylers are on smaller holdings, have made little or no capital investment and rate employment generation as not at all important. Between these two extremes are smallfarmers who have holdings of similar size to farmers, have made modest capital investments and, especially at time of purchase, emphasise the importance of generating full-time employment. The data also show that there is considerable overlap between the three groups so that some lifestylers are similar to farmers and vice versa.

Chapter 5

Discussion of Results and Conclusion

5.1 Introduction

The main objectives of this research were to (1) describe the general characteristics of smallholding near Christchurch (2) to quantify the proportions of lifestylers and smallholders and (3) to examine intentions of smallholders to move from their smallholding, and, if they were to move, to identify lot size preferences. The survey design and its application worked sufficiently well to allow these objectives to be met. This chapter discusses the results in terms of the questions about smallholding identified in the literature review. It then covers policy issues, especially those associated with the provision of residential lots either in the country or the city, and future research.

5.2 Discussion

The review of literature in Chapter 2 highlighted a number of issues about smallholding that at present raise questions about the phenomenon. Each issue is discussed in turn by examining the findings from the present study.

A central theme from the literature was the importance of the rural lifestyle to smallholders. They greatly value privacy, quietness, open space, and clean air. This observation is confirmed by the results presented earlier. The Canterbury smallholders were successfully seeking peace and quiet, clean air, privacy, openness and country living.

A related theme is that further subdivision in close proximity was not a preferred option for existing smallholders; they had already left the city to 'escape their neighbours washing' and did not want close neighbours. The Canterbury smallholders assessed 'further subdivision and/or closer neighbours' as their most highly rated disadvantage of rural living. The second most highly rated disadvantage was chemical and spray drift from farmers and this result signifies the tensions between smallholders and farmers derived from their different motivations.

Another important theme throughout the literature was having a source of income away from the smallholding in a nearby urban area. In addition, many smallholders continue to shop in the urban areas where they had previously lived or where they worked. The Canterbury results are consistent with this pattern with over 60 per cent of respondents and their partners employed off-farm. The results also suggest that smallholders worked and shopped in similar locales because the distance to work matched the distance to the place where they shopped.

The literature review suggested that lot size preferences has been getting smaller in recent years. For example, Talbot (1996:10) discovered those blocks less than ten hectares were the most popular, while Scarrow (1996:2) found the average size was 4.4 hectares. The Canterbury results found the mean smallholding size was 5.65 hectares, the median was just over four hectares, and 62 per cent were between 0.2 and five hectares. Thus the Canterbury data are consistent with decreasing size found in other studies.

There is uncertainty about how much actual production smallholders achieve. A survey of smallfarmers found only four per cent with their primary source of income from the land, although a further 57 per cent receive supplementary income from their smallholding (*Country Living*, 1995). Other studies have examined this issue in different ways so that there

are no consistent data across them. For example, Jowet (1976) found that less than 25 per cent of household income came from the land. The Waimakariri District Council (1994) and Scarrow (1996) reported that 60 per cent worked in Christchurch, suggesting that few worked on the land. The results from the present study show that there are three types of smallholders – lifestylers, smallfarmers and farmers. While about one-half of all smallholders are lifestylers, there are about one quarter who are smallfarmers and one quarter who are farmers. The smallfarmers are production oriented although this is tempered by the reality of 47 per cent working full-time off farm. However, the general observation that smallholders overall do not engage in high levels of production is confirmed by this Canterbury study: 62 per cent did not receive any income from their land and nearly one-half of those that did, received less than \$5,000. Further, 76 per cent had no intention of ever generating full-time employment from their smallholding, 19 per cent were between two and ten years of generating full-time employment and five per cent were currently generating full-time employment. It is possible that there are some in the above 76 per cent who may be intending to generate employment but not at the full-time level. Thus it seems reasonable to conclude that more than one quarter of all smallholders are interested in generating employment.

The literature review showed that work on smallholdings is usually carried out by both partners who shared their on and off-farm employment commitments. The Canterbury results confirm this observation with similar proportions of respondents and their partners doing unpaid work on the smallholding. For this study, there were 76 per cent (and 87 per cent of partners) who worked unpaid for up to 20 hours per week, and this compares favourably with the 61 per cent and 77 per cent found in the *County Living* smallfarmers' survey.

The results highlighted in the above two paragraphs show that there is a serious attitude towards production on smallholdings despite the fact that about one half of the smallholders have as their main motivation the pursuit of a lifestyle. The farmers generally are serious about production although, even for them, there is appreciation of the importance of the lifestyle, an observation that would be true of many farmers in New Zealand. The smallfarmers are production oriented in that they make capital investments and emphasise employment generation but they were also working off farm. It is likely that they will increase their work and production from their land in the future.

Analysis of land use can tell us about smallholders. Grazing was the most frequent land use (92 cases) and earned only \$3,893 on average. This is consistent with a lifestyle orientation because it can be arranged with a farmer neighbour who can take responsibility for all the work. However, the land use data show that the other main land uses (other animals, horticulture – broadly defined- and business activities) (152 cases but note this subtotal includes multiple entries) all have high average incomes ranging from \$18,000 to \$55,000. This level of sales value indicates a more serious attitude to production. Some very high incomes were reported and these skew the data. However, there is a good indication that there is significant production on more smallholdings that are included in the farmer category.

Among the land uses, forestry and tree crops stand out as fitting in well with smallholders who want a future income. There were 48 holdings, or 22 per cent of 218, with forestry and the average area was 2.1 hectares. Given that there is an estimated 7,000 smallholdings in the study area then there are 1,541 smallholdings with forestry and the total area in forestry in the study area is approximately 3,236 hectares. The land use data show that there was a wide variety of tree species planted, mainly hardwoods. There were 23 holdings, or 11 per cent of 218, with tree crops (mainly nuts) and the average area was 1.4 hectares. Given that there is an estimated 7,000 smallholdings in the study area then there are 738 smallholdings with forestry and the total area in tree crops is approximately 1,033 hectares.

5.3 Policy Implications

Provision of smaller residential sections has been increasing and these smaller units may be attractive to smallholders. Our understanding of smallholding based on the survey results shows that the Canterbury smallholders were very satisfied with their lifestyle and the size of their property. Nearly three quarters intend to remain on their smallholding indefinitely and 81 per cent had no intention to leave their current property in the next five years. Nearly three-quarters intended to stay on their smallholding indefinitely and 81 per cent said they had no intention of leaving. Among those who might move were those who would return to a town or city. Presumably there will always be a small proportion of smallholders who will want to return to a smaller residential section. With this broad support of smallholding the questions on intention to move had to be based on hypothetical considerations. Here there was more support for residential sections either urban or rural but the main point was that overall there was equal support for smallholdings, farms or other as there was for residential sections (urban or rural). It was very likely that smallholders were thinking of their retirement when answering this question since the average age of respondent was 50 years. Given that smallholders are attracted to peace and quiet, clean air, privacy, openness and country living and that they rate the possibility of further subdivision and closer neighbours as the most highly rated disadvantage of the rural lifestyle, it is unlikely that smallholders would move to smaller residential sections. Thus it is very unlikely that provision of smaller residential section could attract smallholders from their present situation.

5.4 Limitations and Implications for Future Research

One limitation of this research is that it is based on data from smallholders in Canterbury and may not be typical of smallholding in other parts of New Zealand. This limitation could be addressed by surveying more widely in New Zealand and exploring regional differences in smallholding.

Another limitation is that the question of the effects of distance on smallholding is not addressed. It may be the case that important smallholder characteristics vary along with distance from Christchurch. Analysis is needed of key variables associated with distance. If distance is an important factor then the location of new subdivisions can be expected to have an influence on the pattern of smallholding development.

Quantitative research is not well suited to understanding meanings associated with smallholding. An important topic for research in this area is to examine the relationship between home and work on smallholdings. It is possible that when production increases to modest levels the lifestyle rewards are jeopardised. This issue could be addressed by selecting smallfarmers with high levels of production and interviewing them to assess whether there has been any change in their appreciation of the lifestyle. Another issue that could be examined with qualitative research is examining discourses associated with the different types of smallholders. To date most of the smallholdings research has been done using quantitative methods.

Smallholding is recognised as important part of land use change in New Zealand and it has been studied by a variety of methods. However, the effects of smallholding on rural society are less well studied. Some rural communities have changed significantly in recent years in large part due to the influx of smallholders and their children. These and other impacts await further research.

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Appendix 1

The Questionnaire



LINCOLN UNIVERSITY

SMALLHOLDING SURVEY

MAY 2000

May 2000

DEAR SMALLHOLDER OR FARMER

In 1992 I completed an exploratory study of smallholders around Christchurch in order to understand what people experience and value about smallholding. Now I would like to survey a larger sample in order to assess the situation more broadly and to identify preferences people have for the size of their smallholding.

A smallholding is defined as any rural land up to 20 hectares used for any purpose. I want to hear from all types of landowners including lifestylers, smallholders, and farmers/horticulturalists.

This short questionnaire is one way to make a record of the present smallholding situation. The questions are not complicated. They ask such things as descriptive information, decision to buy, land use, lot size preference and some general information. I think you will find the questions interesting. Any adult member of the household may respond. I assure you that all answers will be confidential to me and only average data will be reported.

Please fill out the questionnaire at your earliest convenience and post it to me (free of charge) as soon as possible. It is important to the success of this research that people respond promptly. This way I can provide an accurate account of the general characteristics of smallholdings. This knowledge is important because it informs councils and others about smallholding. Also, it can let you know more about smallholding and what others are doing. Please let me know if you would like a summary of the results (see last question).

Thank you for your assistance.

Yours sincerely

John Fairweather (Ph.D.)
(Principal Research Sociologist)

Smallholding Survey

Instructions: For each question, please select **one** option and put the corresponding number in the box on the right hand side of the page. In some cases, answer directly in the box or write in the space provided.

A. Background Information

1. What is the **size** of your smallholding? (Hectares)
2. For how many years have you lived on your **present** smallholding?
3. For how many years have you lived on **any** smallholding?
4. If this is **not** your **first** smallholding, how many smallholdings have you previously owned or occupied (not counting your present one)? Please put 0 if this is your first smallholding.
5. (i) What is the commuting distance to central Christchurch? (Kilometres)
(ii) Name the closest town or shopping centre that you use regularly _____
(iii) What distance is the town or shopping centre from your smallholding? (Kilometres)
6. How would you describe your house **now**?
 - (1) Living in temporary accommodation until build or shift a house to the property
 - (2) The existing house on the land, with basic facilities
 - (3) A comfortable, well established house with all modern conveniences
 - (4) An adequate house but plan to renovate
 - (5) House currently undergoing alterations
 - (6) New house built 5-10 years ago
 - (7) New house with all modern conveniences, under 5 years old
 - (8) Other, please specify _____
7. What type of sewage treatment do you use?
 - (1) Septic tank
 - (2) Public sewerage system
 - (3) EOT/Clearwater 90/Biocyte Type
 - (4) Other, please specify _____
8. What type of water supply do you use?
 - (1) Own well
 - (2) Town supply
 - (3) Share well with neighbours
 - (4) Council managed rural water supply
 - (5) Council managed rural water supply and own well
 - (6) Other, please specify _____

B. Land and Production

1. What was the land used for **last season**? Please indicate the **approximate land area** involved and the **approximate income** for each of the options listed. Note, in some cases you may have production for your own use (e.g., firewood, horse grazing), for which there was no cash sale. Please include this either as approximate \$ value or give a description.

Land Use If land is used for 2 purposes the 'total' area may exceed the actual total	Approximate Land Area			Approximate Gross Annual Income, 1998/99	
	Ha	OR	m2	Sales	Value of production for own use
Residential, garden, and/or recreation					
Property for rental or accommodation					
Business activity, other than farming or horticulture					
Dairy					
Grazing - beef, sheep					
Calf rearing					
Deer					
Goat					
Horses					
Poultry					
Pigs					
Other animals (please specify)					
Crops					
Flowers - open air					
Glasshouse					
Market garden					
Berry fruit					
Pip fruit					
Stone fruit					
Vineyards					
Nursery					
Tree crops (1)					
(Please list main species) (2)					
(3)					
Trees for forestry/firewood (1)					
(Please list main species) (2)					
(3)					
Arts and crafts					
Tourism					
Other (please specify) (1)					
(2)					
TOTAL					

2. If any of the above land use or production is organically farmed please put an asterisk on the right hand side of the table adjacent to the relevant land use.

3. The majority of the work on your smallholding is done by?
 (1) Yourself
 (2) Contracted management service
 (3) Yourself guided or co-ordinated by a contracted management service

4. Please compare production two or more years ago, and anticipated production two or more years in the future, with current levels.
 (1) Higher (2) Lower (3) About the same
 Two or more years ago
 Two or more years in the future

5. Which of the following terms **best** describes you?
 (1) Lifestyler
 (2) Hobby farmer
 (3) Smallfarmer
 (4) Horticulturist/grower/farmer
 (5) Other, please specify _____

6. A number of factors can constrain investment in production. How important is **each** of the following factors?
 (1) Not at all important (4) Very important
 (2) Slightly important (5) Extremely important
 (3) Moderately important
 (i) Lack of capital
 (ii) Level of debt
 (iii) Lack of time
 (iv) Any other factor, please specify _____

7. What capital investment in **production** have you made in the last year (excluding purchase value)?
 (1) None (4) \$10,000-19,999
 (2) Up to \$4,999 (5) \$20,000-49,999
 (3) \$5,000-9,999 (6) Over \$50,000

C. Employment

1. How many **hours per week** on average do the following people work on your property?

	Paid	Unpaid
(i) You	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Your partner	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Other family member	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Other person, please specify (1) _____	<input type="checkbox"/>	<input type="checkbox"/>
(v) Other person, please specify (2) _____	<input type="checkbox"/>	<input type="checkbox"/>
(vi) Contracted management	<input type="checkbox"/>	<input type="checkbox"/>

2. How important is generating **full time employment** from your smallholding?
 (1) Not at all important (4) Very important
 (2) Slightly important (5) Extremely important
 (3) Moderately important

When you purchased your smallholding
 At the present time

3. If you have any intention of generating full time employment from your smallholding, in approximately how many years do you envisage achieving it?

4. Employment away from the property:

(i) What is **your** off-farm employment status?

(1) Full-time (2) Part-time (3) Not employed off farm

(ii) What is **your partner's** off-farm employment status?

(1) Full-time (2) Part-time (3) Not employed off farm (4) No partner

(iii) What is the off-farm employment status of any **other adult person** in this household?

Please specify who _____

(1) Full-time (2) Part-time (3) Not employed off farm

5. What is the nature of **your** off-farm employment?

(1) Administrator/Manager (6) Agricultural/Fishery Worker
 (2) Professional (7) Trades Worker
 (3) Technician (8) Machine Operator
 (4) Clerk (9) Elementary Occupation, e.g. labourer
 (5) Service/Sales Worker (10) Other, please specify _____

6. In what town, city or rural location is **your** off-farm employment based? (If in Christchurch please name the suburb or state central city) _____
 (Kilometres)

7. What is the nature of **your partner's** off-farm employment?

(1) Administrator/Manager (6) Agricultural/Fisheries Worker
 (2) Professional (7) Trades Worker
 (3) Technician (8) Machine Operator
 (4) Clerk (9) Elementary Occupation, e.g. labourer
 (5) Service/Sales Worker (10) Other, please specify _____

8. In what town, city or rural location is **your partner's** off-farm employment based? (If in Christchurch please name the suburb or state central city) _____
 (Km)

D. General Attitudes

1. In terms of the balance between lifestyle and land use (production), which is **most** important to you?
 (1) Lifestyle (2) Land use (3) Both equally important

When you purchased your smallholding
 At the present time

2. How satisfied are you with your smallholding lifestyle **now**?
- | | |
|--|-----------------------------|
| (1) Very strongly dissatisfied | (5) Satisfied |
| (2) Strongly dissatisfied | (6) Strongly satisfied |
| (3) Dissatisfied | (7) Very strongly satisfied |
| (4) Neither dissatisfied nor satisfied | |

3. How much longer do you intend to stay on your smallholding?
Please specify the approximate number of years, or if indefinitely put 99

4. Do you have any intention of leaving your current property within the next five years?
- | | |
|-----------|--------|
| (1) Yes * | (2) No |
|-----------|--------|

* If **yes**, where might you move to?

- | | |
|--|--------------------------------------|
| (1) A residential section in a town or city | (5) A medium smallholding (4-10 ha) |
| (2) A rural residential section (0.1-0.5 ha) | (6) A larger smallholding (10-20 ha) |
| (3) A rural residential section (0.5-1 ha) | (7) Other, please specify |
| (4) A smaller smallholding (1-4 ha) | _____ |

5. If you were ever to move, where might you move to?
- | | |
|--|--------------------------------------|
| (1) A residential section in a town or city | (5) A medium smallholding (4-10 ha) |
| (2) A rural residential section (0.1-0.5 ha) | (6) A larger smallholding (10-20 ha) |
| (3) A rural residential section (0.5-1 ha) | (7) Other, please specify |
| (4) A smaller smallholding (1-4 ha) | _____ |

6. Please think back to the time when you decided to buy your smallholding. At that stage did you consider buying a residential section (either a new subdivision with lot sizes at less than 1 hectare or a section in a town or city)?
- | | |
|-----------|--------|
| (1) Yes * | (2) No |
|-----------|--------|

- * If **yes**, did you actually look at a one of these?
- | | |
|---------|--------|
| (1) Yes | (2) No |
|---------|--------|

7. Would you ever consider moving to a residential section?
- | | |
|---------|--------|
| (1) Yes | (2) No |
|---------|--------|

8. Are you satisfied with your current land size?
- | | |
|---------|----------|
| (1) Yes | (2) No * |
|---------|----------|

* If **no**, what size smallholding would you now prefer?

- | | |
|------------------------|----------------------|
| (1) Between 0.1-0.5 ha | (5) Between 4-10 ha |
| (2) Between 0.5-1 ha | (6) Between 10-20 ha |
| (3) Between 1-2 ha | (7) Above 20 ha |
| (4) Between 2-4 ha | |

9. Using the seven-point scale below, please indicate how favourable or unfavourable is your general attitude towards the following four items?

- | | |
|---|--------------------------|
| (1) Extremely unfavourable | (5) Favourable |
| (2) Very unfavourable | (6) Very favourable |
| (3) Unfavourable | (7) Extremely favourable |
| (4) Neither unfavourable nor favourable | |

Using gene technology on your smallholding

Using organic methods on your smallholding

Purchasing GM food

Purchasing organic food

10. We are interested in motivation for smallholding both when you purchased **and** now. How important is **each** of the following factors?

- | | |
|--------------------------|-------------------------|
| (1) Not at all important | (4) Very important |
| (2) Slightly important | (5) Extremely important |
| (3) Moderately important | |

	When purchased	At present
To generate regular income from the land	<input type="text"/>	<input type="text"/>
To generate future potential income and/or retirement income	<input type="text"/>	<input type="text"/>
Employment for myself or family	<input type="text"/>	<input type="text"/>
Rural or country living	<input type="text"/>	<input type="text"/>
Peace and quiet, tranquillity	<input type="text"/>	<input type="text"/>
Space, privacy, openness, no close neighbours	<input type="text"/>	<input type="text"/>
Clean air, no smog	<input type="text"/>	<input type="text"/>
Safe and healthy place to raise children	<input type="text"/>	<input type="text"/>
The challenge of a smallholding	<input type="text"/>	<input type="text"/>
Learn about farming	<input type="text"/>	<input type="text"/>
Can have animals	<input type="text"/>	<input type="text"/>
A chance to be creative	<input type="text"/>	<input type="text"/>
Less pressure, relaxing	<input type="text"/>	<input type="text"/>
As a tax deduction	<input type="text"/>	<input type="text"/>
Place to retire	<input type="text"/>	<input type="text"/>
Wanted a larger section than you can get in a city or town	<input type="text"/>	<input type="text"/>
Other, please specify _____	<input type="text"/>	<input type="text"/>

11. We are interested in the disadvantages to your rural lifestyle **now**. How important is **each** of the following factors?

- | | |
|--------------------------|-------------------------|
| (1) Not at all important | (4) Very important |
| (2) Slightly important | (5) Extremely important |
| (3) Moderately important | |

Animal manure on the roads	<input type="text"/>
Distance to travel to work and/or transport children, teenagers	<input type="text"/>
Land use conflict with established farmers and/or their attitudes to newcomers	<input type="text"/>
Limited number of local clubs, organisations, sport and/or recreation facilities	<input type="text"/>
Can't subdivide any further	<input type="text"/>
Unexpected costs and/or problems with local authorities	<input type="text"/>
Possibility of further subdivision occurring and/or closer neighbours	<input type="text"/>
Time required for work, chores and/or property maintenance	<input type="text"/>
Distance to primary and/or secondary schools	<input type="text"/>
Chemical or spray drifts from farmers	<input type="text"/>
Lack of services (water/sewerage/refuse)	<input type="text"/>
Other, please specify _____	<input type="text"/>

E. Some Personal Characteristics

1. Gender: (1) Male (2) Female
2. Please state your age: (Years)
3. We would like to assess how significant your off-farm income is so we can compare it with on-farm income. Please select the appropriate range for **your** off-farm income:
- | | | |
|---------------------|-------------------------|--------------------------|
| (1) Under \$20,000 | (5) \$80,000-99,999 | <input type="checkbox"/> |
| (2) \$20,000-39,999 | (6) \$100,000 and above | |
| (3) \$40,000-59,999 | (7) Not applicable | |
| (4) \$60,000-79,999 | | |
4. Please select the appropriate range for the total of **your partner's** off-farm income:
- | | | |
|---------------------|-------------------------|--------------------------|
| (1) Under \$20,000 | (5) \$80,000-99,999 | <input type="checkbox"/> |
| (2) \$20,000-39,999 | (6) \$100,000 and above | |
| (3) \$40,000-59,999 | (7) Not applicable | |
| (4) \$60,000-79,999 | | |
5. Would you like to receive a summary of the report on smallholding?
- (1) Yes (2) No