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**The role of the rural contractor in
flexible labour use on South Island
sheep and beef farms**

A thesis
submitted in partial fulfilment
of the requirements for the Degree of
Master of Applied Science
in International Rural Development

at
Lincoln University
by
Isobel Jillian Greenhalgh

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Abstract of a thesis submitted in partial fulfilment of the requirements for the Degree of M.Appl.Sc.

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Isobel Jillian Greenhalgh

Despite its falling profile in agriculture, sheep and beef farming is still an important contributor to the New Zealand economy, exporting \$12.5 billion worth of pastoral products to 102 countries (Davidson, 2007). Over the last 50 years there have been considerable changes in the farm labour mixes, particularly on sheep and beef farms. A combination of off-farm work, diversification on the farm and a steady fall in the number of permanent farm workers has resulted in an increasing array of tasks undertaken by rural contractors. There are rural contractors available to carry out almost any imaginable farm chore and their existence allows farmers to have a much more flexible approach to employing labour. Yet little is known about the rural contracting industry and little is also known about why some farmers make extensive use of contractors yet others make minimal use of them. This research project starts to fill this gap by providing an exploratory snapshot of the industry and its relationship to farmers within the South Island sheep and beef farming sector.

A mixed methods approach has been used. A survey of members of the Rural Contractors New Zealand, the national organisation and leading advocate for rural contractors, was followed by a case study approach to explore the perceptions of and relationships between rural contractors and sheep and beef farmers.

The results have been divided into three sections. One section considers the labour use on farms and the ability of farmers to gain numerical flexibility through the use of casual labour and contractors as there are increasing disincentives for employing permanent workers. Contractors are used for the skills they have gained through specialisation, the machinery and technology they can offer, and as a substitute for other labour. The ageing of farmers, the

paucity of skilled farm employees and increasing pluriactivity all indicate that the contracting sector will grow in importance. The second section considers the environment in which contractors work. The availability of suitable labour, weather, competition, financial viability and health and safety are the major short term issues they face while their long term concerns revolve around the profile of their industry, increasing legislative requirements and the state of the economy. The third section considers the relationship between the two parties and finds there is a relatively harmonious relationship based on a development of trust between farmer and contractor.

Contractors make a significant contribution to rural communities, by providing off-farm work and casual workers for the farming sector, and contributing to the economic and social health of local areas. Increasing farm productivity, and increasing farm accreditation requirements to meet the changing market demand for credence properties in agricultural products, are likely to require further input from the rural contracting industry in the future.

Keywords: agricultural contracting, agricultural employment, family farms, farm labour, flexible labour, New Zealand agriculture, pluriactivity, rural contracting, rural employment, sheep and beef farms

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No one can whistle a symphony. It takes a whole orchestra to play it
(H.E. Luccock).

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A man only learns in two ways, one by reading, and the other by association with smarter people (Will Rogers).

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Abbreviations and Acronyms

ACC	Accident Compensation Corporation
ANZSIC	Australia and New Zealand Standard Industrial Classification
A & P	Agricultural and Pastoral (shows)
ATV	all terrain vehicle (farm four-wheeler bike)
BERL	Business and Economic Research Limited
CEO	Chief Executive Officer
DoL	Department of Labour
ETS	Emissions Trading Scheme
FCANZ	Fencing Contractors' Association New Zealand
FTE	Full-time Equivalent
GLW	gross laden weight
GPS	Global Positioning System
GST	Goods and Services Tax
ITO	Industry Training Organisation
MAF	Ministry of Agriculture and Forestry
MJH	multiple job-holding
NSW	non-standard work
NZAAA	New Zealand Agricultural Aviation Association
NZQA	New Zealand Qualifications Authority
NZRTA	New Zealand Road Transport Association
OSH	Occupational Safety and Health
RCNZ	Rural Contractors New Zealand
RTFNZ	Road Transport Forum New Zealand
SME	small and medium enterprises
SMP	Supplementary Minimum Price
s.u.	stock units
TAMA	Tractor and Machinery Association
TSL	Transport Service Licence
WINZ	Work and Income New Zealand

Chapter 1

Introduction

1.1 Introduction and Background

Sheep and beef farming is constantly changing. Hay-making, shearing and lambing were the highlights of the farming year in my early childhood. As a four year old I picked up the bellies for the shearer and threw them into the bin. Hay-making usually meant carrying the ‘smoko’ basket down to the friends and neighbours gathered to help, while lambing often involved riding out with my father and carrying lambs on my pony from one place to another. As a child, farming was my passion. Consequently I went to Lincoln College and gained an agricultural degree, but married a non-farmer. So I joined the pluriactivists¹ and ran a small sheep and beef farm in Buller, alongside a career in teaching.

Nowadays farm children are much less likely to assist with shearing and haymaking as these routine farm tasks are often carried out by contractors. The farmer and his family may do little more than organise the event. Over the last 50 years there have been considerable changes in the farm labour mixes, particularly on sheep and beef farms. At least one of the farm principals is likely to work off the farm. Alternatively, there may be non-agricultural activities carried out on the farm, such as tourism. There has been a steady fall in the number of permanent farm workers and an increasing array of tasks undertaken by rural contractors (Shadbolt & Rawlings, 1999).

Yet little is known about the rural contracting industry. Despite mention being made of the use of contractors in most of the literature relating to farm labour, there is a complete dearth of information about it, and there are few useful New Zealand statistics². An attempt to determine trends in the numbers of contractors from the statistics available was thwarted by the inconsistency in both the definitions of contractors and the methods used to collect the data (Walter & Tipples, 2007). This research project is an attempt to start to fill this gap by providing an exploratory snapshot of the industry and its relationship with South Island farmers within the sheep and beef sector.

Despite its falling profile in agriculture, sheep and beef farming is still an important contributor to the economy, exporting \$12.5 billion worth of pastoral products to 102

¹ A person who holds more than one job at a time (Taylor, McClintock, Baines, & Newell, 2004).

² Data for shearers are gathered by Statistics New Zealand but most other rural contractors come under “Other Agricultural and Fishing Support Services” in the ANZSIC system.

countries. The sector generates 55 percent of the world's sheepmeat trade, 75 percent of the world's lamb meat trade and 6 percent of beef, as well as 17 percent of the world's wool exports (R. Davidson, 2007). For the year ended 31 March 2008, the wool industry generated \$615 million in export earnings (MAF, 2009). The sheep and beef sector employs over 26,000 employees, representing 33 percent of all agricultural employees (MAF, 2008). Using a multiplier of 5.05, as suggested by BERL Economics (Sanderson & Webster, 2009), would indicate that over 130,000 FTEs are connected to this sector in direct, indirect and induced employment. There are a total of 28,250 sheep and beef farms in New Zealand, representing approximately 46 percent of all farms (of which 11,410 are in the South Island) (Saunders & Zellman, 2007). This is almost twice the number of dairy farms. In 2007, the national beef herd comprised 4.4m animals compared to 5.1m dairy animals, and around 38.0m sheep (MAF, 2009). In addition, the pastoral sector supports other sectors of the economy such as financial services, freight and logistics, engineering, science and education (KPMG, 2010). While New Zealand "no longer maintains the mantle of the world's lowest-cost meat producer" it is still among the more efficient (MAF, 2009, p. 41). Productivity grew at 2.5 percent per annum between 1978 and 2007 in agriculture, compared to 0.9 percent for the total economy (MAF, 2009).

Bruce Wills, Meat and Fibre chairman of Federated Farmers, claimed that, "Far from the sunset industry predicted by some in the early 1980s, food production is to New Zealand what Nokia is to Finland" (Federated Farmers of New Zealand, 2008). Furthermore, KPMG (2010, p. 3) notes that "many have concluded that the agribusiness sector will be a core contributor to the prosperity of the economy as we move into the post-crisis world". Pastoral farmers are still the key figures in rural communities and "their attitudes, values and management priorities continue to shape the landscape to a major extent" (Jay, 2004, p. 160).

Labour costs are "an important component of New Zealand's agricultural competitive advantage in our international markets" (McCrostie Little, Taylor, & McClintock, 1997, p. 30). For this reason it is vital to know how farmers use different sources of labour if they are to maintain this advantage.

Historically, New Zealand farms have been family farms whereby the family has supplied a large proportion of the labour required. Within the sheep and beef sector this is still the situation with an average labour force of 1.8 units per farm which includes the owner(s)³. The erosion of farm profitability in recent times has been one factor contributing to the trend

³ Figures from Sheep & Beef Farm Survey supplied by Meat & Wool New Zealand Economic Service, 2 April, 2009.

towards larger farms, enabling farmers to increase production (Mouton & Korkie, 2000). The average size of sheep and beef farms has increased by 24 percent over 15 years, from 725 effective hectares in 1981-82 to 897 effective hectares in 2006-07⁴. Associated with increasing farm size is an increase in the complexity of the business in both physical and management terms.

Deregulation of agriculture in the mid 1980s reinforced what was already a trend; an increasing reliance on the farm family at the expense of permanent labour (Drummond, Campbell, Lawrence, & Symes, 2000; Fairweather, 1992; Johnsen, 2004; Wilson, 1994). This meant that contract labour was often used for jobs requiring labour beyond that which the farm family could supply, and also for jobs requiring specialised machinery as farmers reduced their investment in farm machinery. New Zealand farmers have traditionally employed shearers in a contracting relationship, but anecdotally there seems to be an increase in contracting for a wide range of purposes on farms such as: land development, road construction and site preparation, drainage, fencing, cultivation and planting, direct drilling, making silage, balage and hay, harvesting of crops, fertiliser application, chemical application for weed and pest control, shearing, sheep shepherding, dipping and docking, pregnancy and eye muscle scanning, transportation and farm forestry requirements. As well as these contractors, farmers also use professionals such as veterinarians, accountants, lawyers and farm consultants.

Recent labour shortages may have reinforced the trend towards more contractor use, but there is no readily available statistical evidence to confirm this. Morriss, Tipples, Townshend, MacKay and Eastwood (2001) had suggested that 86 percent of sheep and beef enterprises in their survey had used contractors in the year ending 31 March 2001, compared to only 20 percent in the dairy sector. Given the list of services offered, this would appear to considerably under-estimate contractor use. A survey of British farmers indicated that eight percent of total variable farm costs were spent on contracting expenses in the Reading province (Wright & Bennett, 1993). There are no equivalent New Zealand figures to indicate how much New Zealand farmers spend on contracting. There has been, however, a world-wide increase in the use of contract labour in recent years as businesses seek more flexible ways of utilising labour, in order to respond to changing economic conditions (Atkinson, 1984).

⁴ Figures from Sheep & Beef Farm Survey supplied by Meat & Wool New Zealand Economic Service, 2 April, 2009.

The literature on flexible labour use has mainly focused on the use of unskilled contractors and the ways these people tend to be 'exploited' through low pay rates, no security and little power. Some work has looked at skilled contractors in IT and engineering where the situation is quite different. Here 'employability' is seen as more important than security and these people tend to earn more than their peers in permanent jobs (Kunda, Barley, & Evans, 2002; Peel & Boxall, 2005). New Zealand's rural contractors do not fit neatly into either of these groups; some offer specialised skills such as shearing and accountancy, while others offer the use of specialised machinery for harvesting and land development. A further group offers a combination of both skills and specialised equipment as with chemical application and scanning. Finally, there are also those who offer unskilled labour such as the docking gangs, shed hands for shearing, and relief milk harvesters.

The rural contracting industry is well established in New Zealand with a variety of associations providing their members with a political voice, marketing information and information on relevant legislation along with a communication network. There is a range of qualifications available to those working in these industries and there is even a magazine published by Agrimedia called "Rural Contractors and Large Scale Farmers" with a subscription list of over 5000. Yet little research has been carried out on the role of rural contractors in agriculture.

In much of the literature on contracting, the focus has been from the perspective of either the firm or the unskilled labourer. In agriculture, contracting often provides an essential service that the farmer himself cannot, or does not want to perform. The interaction between farmer and contractor is a vital element in a successful relationship so any research needs to consider both points of view. Peel and Boxall (2005) carried out a study looking at the relationship between management and contractors in two groups of workers who had differing skill levels (energy supply and engineering consultancy). This approach suggested a model on which to base an examination of the relationship between farmers and rural contractors. McCrostie Little et al. (1997) believed that a much deeper understanding of farm labour is needed to understand New Zealand's competitive advantage, as well as to aid the development of policy both for future sustainability in agriculture and for the wider social context. This research hopes to increase the understanding of an overlooked sector of agricultural employment. Rural contracting has the potential to contribute to the success of sheep and beef farming in the period of change ahead:

New Zealand's meat industry currently sits on the edge of significant, and potentially rapid, change. The industry has proved its ability to adapt to market conditions and will be required to do so again. Changing land use, static or falling livestock numbers and rising production costs will conspire to force producers and processors to innovate and seek new efficiencies (Moynihan, 2008, p. 7).

1.2 Aims and Objectives

Given the lack of statistical data available, this study used a two-phase sequential explanatory mixed-methods study (Cresswell, 2003). Such an approach provided an exploratory snapshot of the rural contracting industry and its relationships with the sheep and beef sector of the agricultural industry, along with some description of, and explanation for, the patterns within these relationships. Initially, some data was gained from a sample of members who belong to Rural Contractors New Zealand, the industry association for many contractors, to provide a broad overview of the agricultural contracting industry⁵ and a starting point for drawing up an interview guide. This was followed by interviews with both rural contractors and sheep and beef farmers to explore the perceptions and relationships between the two groups. The use of these two methods plus the addition of secondary data helped to triangulate findings.

Anecdotal evidence suggests that rural contractors do play an important part in meeting the needs of sheep and beef farmers. Thus, the overarching primary question that this research sought to answer was “What is the role of the rural contractor in flexible labour use on South Island sheep and beef farms?” To determine their role, three basic research questions need to be addressed:

Q.1 How do sheep and beef farmers decide on the particular combinations of labour they use?

The type of farming system used determines the labour requirements of the farm. Therefore, this question investigated the employment mixes on sheep and beef farms with the role of the rural contracting industry specifically identified through considering the following sub-questions:

- In what ways have changes in sheep and beef farming practices in recent years impacted on the labour requirements on farms?

⁵ In this study “rural contractor” refers to all those who provide contracting services to farmers whereas “agricultural contractor” refers to those who provide spraying, cultivation and harvesting services.

- What changes do farmers make in their labour mixes as the economic environment changes?
- What are the current trends in the use of permanent and casual labour, and contractors?
- When do farmers use rural contractors and how significant is the use of rural contracting?

Q.2 What influences the ability of contractors to meet farmers' needs?

Any business functions within an economic, physical and social environment so this question examined the environmental factors affecting rural contractors' ability to offer the required services.

- Who are the rural contractors?
- What are the major problems facing individual rural contractors and how do they overcome these?
- What are the rural contracting industry issues?

Q.3 How do rural contractors seek to meet farmers' needs?

This question explored the perceptions, experiences and issues involved in the relationship between individual farmers and contractors working with one another.

- What are the issues that farmers and contractors face in their relationships with one another?
- How do they attempt to resolve these issues?

The outcome of this approach will hopefully provide an overview of the rural contracting industry along with its place on sheep and beef farms as part of their labour mix. It should also offer an insight into the relationships between the two actors: farmers and contractors.

1.3 Structure of the Thesis

Chapter 2 looks at the literature content that provides a foundation for the research. The approach has been to look at flexible labour use on farms, so the initial sections (Sections 2.1 to 2.4) consider what the literature has to say about flexible labour in a wider setting. It then considers some of the work that has been done in New Zealand on non-standard workers; those who do not have the traditional 40 hour week jobs and provide employers with a source

of flexible labour. This is followed by looking at the literature on flexible labour use within agriculture across the world. Section 2.5 then focuses on the historical setting for New Zealand agriculture to provide the context for today's farmers. Family farms are still highly predominant and knowledge of how family farms function is vital to an understanding of farm labour. Family farm response to adversity and farmer goals are both researched, in order to explain what has happened on the farm since deregulation. The final section of the literature review considers what the literature has to say about rural contractors.

Chapter 3 describes the research methods used to explore this topic. It explains the rationale behind the method selected; describing the benefits of a mixed methods approach, which used a survey followed by qualitative interviews, to gain the depth of understanding needed to explain the interrelationships between the farming sector and the contracting sector. It describes the method in detail and considers the ethical issues plus the constraints on, and the limitations of, the project.

The results have been covered over three chapters. Chapter 4 considers the farming side of the relationship. It attempts to answer the first research question by exploring the farms involved: how these farmers solve their labour requirements; and when and why they decide to use rural contractors. Chapter 5 turns its attention to the contractors and the second research question: who are the contractors, and what are the problems their industry faces. Chapter 6 brings the two parties together to examine the relationships and issues involved between farmer and contractor in order to answer the third research question.

Chapter 7 takes the findings and relates them to the literature. The chapter is covered in three sections; each attempting to answer one of the research questions described above. The discussion is extended a step further than these three questions in order to look towards the future to see where the contracting industry might be heading, and to briefly consider how the relationship between farmers and contractors impacts on New Zealand's rural communities. Chapter 8 provides the conclusion. It summarises the results and considers whether the research meets the goals it set out to achieve, along with the implications of the research.

Chapter 2

Literature Review

2.1 Introduction

In the current era of farming, farmers have many options in the ways they meet the labour requirements on their farms. They have the option of using family labour, having permanent employees (who can be part-time or full-time), using casual or seasonal labour, or getting in contractors to do specific tasks, such as making the hay or constructing new fences. A contractor is basically anyone who comes onto the farm to complete a task but who is not an employee of the farmer⁶. The primary feature of a contractor is that the person is in business on his or her own account, rather than working in the farmer's business (Oldfield, Fryer, & Haynes, 2001).

To complicate matters further, either the farmer and/or the spouse may also work off the farm. Much has been written about flexible labour use and the first part of this review will consider how useful current theories are when applied to the agricultural industry. The second part will investigate what is known about how farmers make their labour combination choices, focussing on the relationship between the rural contractor and the farmer.

Section 2.2 looks at the theory behind flexible labour and describes Atkinson's model which illustrates the use of core and peripheral labour. Section 2.3 moves on to consider some studies on the non-standard workers who provide the peripheral labour within the New Zealand economy. Section 2.4 looks at the model's relevance to the agricultural industry.

In order to understand the model's application in agriculture, it is necessary to consider the economic environment that farmers have faced over the last thirty years, as this has had a profound effect on their labour use. Section 2.5 looks at the deregulation that occurred in the mid 1980s with such a drastic effect on New Zealand's agricultural industry, although some commentators believe that deregulation simply accentuated changes which were already occurring (Drummond et al., 2000). Section 2.6 reviews the importance of the farm family taking into consideration the goals and objectives that farmers have, since this forms the basis for the decisions they make about their labour requirements. Section 2.7 considers what has happened within agriculture since its recovery from the upheavals of the 1980s.

⁶ A 'contractor', for the purpose of this research, will be more rigorously defined in the methods section.

Throughout the literature on sheep and beef farms, mention is consistently made of the decline of the permanent employee and the increasing use of contractors. Yet there appears to have been few studies carried out on the role of the rural contractor in the pastoral sector. Section 2.8 draws a picture of the role of rural contractors from what little comment has been made.

2.2 A 'Flexible' Labour Force

In any business the labour resource plays a vital role in the level of productivity and profitability of the firm. In addition, the contribution of total labour costs are important in maintaining New Zealand's competitive advantage in its international markets (McCrostie Little et al., 1997). In the traditional forms of labour employment an employee worked in a full-time job with a single employer and expected to remain in that position for his/her working life. In more recent times there has been a world-wide movement away from this into a more diverse labour structure with a range of employment types including: part time work, casual work, seasonal work, lease workers, consultants and independent contractors (Kunda et al., 2002). This type of employment structure has a variety of names including: contingent work, atypical work, flexible work and non-standard work (NSW), which is the most common term appearing in the New Zealand literature (Spoonley, Dupuis, & de Bruin, 2004). This change appears to have been mainly driven from firms requiring more flexibility in their ability to respond to changing economic conditions such as: market stagnation, uncertainty, technological change and industrial relations legislation (Atkinson, 1984). Non-standard employees carry fewer costs than permanent employees and allow employers to transfer economic risk to the workforce (Tucker, 2002). There is also evidence of social influences from workers wanting more flexible working arrangements beyond the standard eight-till five 40 hour week.

Employing flexible labour was seen as allowing firms to increase their market labour flexibility and as one way to increase the efficiency of their workforce. This is called numerical flexibility and can be achieved both within the firm and externally. Numerical flexibility is desired so that workforce numbers can be quickly and easily increased or decreased in short time-frames. It involves hiring and firing, as well as utilising temporary workers or fixed term contractors (Seifert & Tangian, 2006). Seifert and Tangian point out that internal numerical flexibility is also commonly achieved by core workers working overtime. The other way in which firms could utilise their work force better was through

functional flexibility. Functional flexibility relates to the range of tasks that an employee is able to do. Unlike the more traditional division of labour, functional flexibility centres on workers being multi-skilled so that they can move between a range of tasks, thereby increasing a firm's internal mobility (Treu, 1992).

The third way in which firms can theoretically introduce flexibility into their labour markets is through financial flexibility. If pay and other employment costs accurately reflected the state of the labour market, then firms would be able to hire labour as cheaply as possible. To a certain extent, the introduction of performance-based payment schemes does give some pay flexibility, but financial flexibility has not been studied to any extent because wages tend to be resistant to downward movements (Kalleberg, 2001).

2.2.1 The core and the periphery

Atkinson (1984) produced a model which categorised workers into 'core' or 'peripheral'. Core workers were the permanent workers who had the essential skills that the organisation needed; skills which couldn't be easily bought-in. They provided the functional flexibility for the firm and had security of job tenure. Outside of these workers were the peripheral workers. The first peripheral group were also full-time employees with lower job security, as their jobs were not firm-specific and there was a much lower requirement for training. These jobs, which tended to be clerical, supervisory or on assembly lines, attracted women. They had a relatively high turnover, facilitating numerical adjustments. A second peripheral group of sub-contractors, agency workers and part-time workers provided extra external functional flexibility when required, for shift-work or peak manning. Also, jobs which were very specialised or very mundane, but were not firm-specific, were often also resourced from outside. Finally, flexibility could also be achieved by out-sourcing. Contracting out by firms or using independent contractors has the benefit of transferring risk and uncertainty to the contractors, in addition to disposing of employment related issues such as dismissal (Greene, 2000). It also reduces training and administration costs, and an employer's risks and liabilities regarding health and safety.

On the surface, Atkinson's model appears to cover agriculture. The core group is made up of family labour and any permanent workers. Farm workers have always had a high degree of functional flexibility as they are expected to become proficient at all aspects of farming, from crutching to tractor work to fencing. In addition, they were never employed on the basis of a forty hour working week so this has allowed numerical flexibility with the farmer simply extending (without extra pay) the employee's hours of work when required. Part-time or

casual workers become the peripheral group as they are employed when extra labour is required, such as during lambing or harvesting. This group may include family members who can be called upon when an extra pair of hands is required. Contractors are used to undertake the more specialised jobs such as shearing or spraying. Overall this would indicate that a farmer has a great deal of numerical flexibility.

Gamble and Huang (2009) point out that Atkinson's model is not always supported by the evidence. For example, there can be part-time workers both within the core and on the periphery. It is a model that was developed in manufacturing so it may not be applicable to the service sector, or for that matter, to agriculture. Furthermore, Atkinson presumes that the utilisation of these non-standard workers to increase flexibility is a conscious strategy made by management but it appears that firms often employ non-standard workers on an ad-hoc basis (Gamble & Huang, 2009; Greene, 2000).

A further problem with flexibility is that while those in the core have job security, those on the periphery do not. There is a trade-off between numerical flexibility and stability. Numerical flexibility allows costs to be minimised but is likely to impact on productivity. Security of tenure is desirable from the worker's point of view and, if security can be paired with functional flexibility, it may also be desirable from the firm's viewpoint. Despite economists' promotion of numerical flexibility for over 20 years, the average duration of employment is still fairly stable. It has been found that short tenure does have an adverse effect on productivity (Auer, Berg, & Coulibaly, 2005), as does extensive tenure. Security of tenure is needed to make a firm's investment in on-the-job training for its employees worthwhile. In addition, employees will only contribute to productivity improvements if they are in a stable job.

Productivity and innovation are linked. Innovation, which includes "the development or introduction of any new or significantly improved activity for a business" (Statistics New Zealand, 2009, p. 5), is considered to be one of the main contributors to productivity, which in turn affects a country's economic growth rate and international competitiveness. Michie and Sheehan (2003) considered the effect of flexibility on innovation in manufacturing and service firms in the UK employing over 50 people. Firms which used 'low road' practices such as: the use of short-term and temporary contracts; a lack of employer commitment to job security; and low levels of training, had a negative correlation with innovation. On the other hand, firms that were highly committed to job security and training showed a positive correlation with innovation.

This conflict between the need for numerical flexibility to promote both economic and employment growth in a global economy, and the opposing need for some stability for a workforce increasingly faced with non-standard work and a lower standard of living, has been the subject of considerable debate (Auer & Cazes, 2002). Should economic growth proceed at the cost of reducing the well-being of the working population? Growth on this basis may not be sustainable in the long term. Despite the prediction of the end of wage employment (Beck, 2000, as cited in Auer & Cazes, 2002, p. v), there is little evidence to show a decline of a stable workforce in Europe: “Indeed, we found convincing evidence that the longer-term employment relationship is more resilient than commonly thought” (Auer & Cazes, 2002, p. 4).

Kunda et al. (2002) asked the question as to why contractors contract. They argued that there are two approaches to looking at non-standard work. The first approach was from an employment relations perspective where such work is associated with minority groups and low wages, thus creating a social welfare problem. The second approach was to view flexibility from what they called a “free agent perspective” which focused on highly skilled contractors who valued the independence from organisational employment. They found that while these skilled contractors from the engineering and information technology sectors earned more than their traditionally employed colleagues, they had problems finding the time to train and up-skill, and also missed having a collegial network. While horticulture makes use of unskilled non-standard workers in New Zealand, this is not so apparent in the agricultural sector.

Since organisations will persist in using labour strategies that enable them to respond to competitive, technological and labour supply issues, Kalleberg (2001, p. 496) believes that there is a real need for continuing research: “the idea of the ‘flexible firm’ as a framework for research on the interplay between these two forms of organizational flexibility is likely to remain important for social scientists studying work, organizations and industrial relations”. This study hopes to offer an increase in the knowledge of how farmers utilise forms of flexibility within their industry.

2.3 New Zealand Studies on Non-standard Workers

According to Tucker (2002), the majority of the literature supports the argument that NSW has increased over the last 15 to 20 years, but no data has been collected on casual, temporary or fixed-term employment within New Zealand. Using the statistics that were available,

Spoonley (2004) believed that 22 percent of those in work were in part-time work, while Dupuis and McLaren (2006) noted an increase in both part-time work and self-employment of six percentage points from 1981 to 2001, for all labour force participants. This suggests that the use of non-standard workers is growing in New Zealand. Tucker (2002) claimed that international research indicates the highest concentration of lower end non-standard jobs is in agriculture and unskilled manual jobs for men, and service jobs for women. These lower-end jobs are termed 'precarious' non-standard employment as "they encompass a range of factors that put workers at risk of injury, illness and/or poverty (from low wages, low job security, limited control over workplace conditions, little protection from health and safety risks in the workplace and less opportunity for training and career progression)" (Tucker, 2002, p. 5). In addition, studies have shown that there is a higher proportion of casual workers in workplaces with a seasonal demand for labour. This would suggest that the New Zealand agricultural sector may be responsible for some precarious non-standard employment.

The growth of NSW comes from labour demand factors resulting from technological and structural changes; supply-side factors resulting from social and demographic changes; and institutional changes coming from changes to employment legislation (Tucker, 2002). For example, the Employment Contracts Act 1991 introduced by the National Government was intended to promote a more efficient labour market with the effect of giving a greater 'balance of power' to employers (Greene, 2000, p. 183).

The findings of the study of Kunda et al. ((2002) were reinforced by the results from New Zealand studies (Firkin et al., 2003; Peel & Boxall, 2005). Peel and Boxall (2005) compared the employment of both skilled and unskilled contractors, and the management decisions of the firms which employed them. Transaction costs theory suggests that contractors will be used where the work is generic, easily specified and measured, and not needed on a regular basis. Firms will use internal labour when the converse is true: skills are very specific to the firm, relatively ambiguous and hard-to-measure. Their findings suggested that the theory did not hold true. In this instance, the unskilled contractors (meter readers) in the electricity industry ended up joining a contracting company: back in a traditional relationship. There was a legitimate role for the skilled contractors from the engineering industry in order to allow firms to respond to changes in demand. They preferred, however, having permanent staff when their skills were critical for the success of the companies. It would appear that transaction costs theory cannot adequately explain the role of rural contractors with their wide range of skills. An important aspect of this study was that it considered both sides of the

employment relationship; an essential requirement when looking at the role of the rural contractor.

The main problem identified, apart from training and networking issues, for the skilled contractors was a lack of job security. “The security of employability might be one of the most widespread anxieties in the twenty-first century” (McLaren, 2004, p. 235). Having good networks and marketable skills, however, can provide employment security. In this age of frequent redundancies, the security of permanent employment may be an illusion. The existence of Rural Contractors New Zealand, Fencing Contractors’ Association New Zealand, the New Zealand Groundspread Fertilisers’ Association Inc., the New Zealand Trucking Association and the New Zealand Agricultural Aviation Association suggests that networking issues are important for rural contractors as well. The question is: what other issues do rural contractors face? For instance, Firkin et al. (2003) comment that the New Zealand regulatory environment is failing to cater for the growth in the non-standard employment.

2.4 Agriculture and Flexible Labour Use

Within agriculture, research in the area of flexible labour use is scarce. In South Africa, the increase of competition in the fruit industry through globalisation; changes in labour legislation; and stricter technical, environment and employment standards required by supermarkets, has caused fruit producers to move away from permanently and seasonally employed on-farm labour towards a range of more flexible labour sources (Kritzinger, Barrientos, & Rossouw, 2004). A permanent workforce is retained for the more skilled and specialised tasks such as irrigation, tractor driving and spraying. This core labour allows producers to meet the more stringent standards they are facing. The contract workers there have few or no legal employment entitlements and there is no union organisation. The grape industry in Chile and Brazil faces similar issues and reduces supervision costs by developing a loyal permanent workforce while using seasonal workers for unskilled jobs (Collins & Krippner, 1999). On many farms the employed labour works over a large area so is not easy to supervise, whereas family labour has a much greater interest in working efficiently (Brookfield, 2008). Brookfield (p. 115) noted that some German research had shown “twice or more worker-time per hectare was needed with hired labour than with family labour in the later twentieth century”.

Now that sugar harvesting in Australia is fully mechanised, it faces similar problems to New Zealand’s arable sector. Harvesting requires an investment in expensive modern machinery.

As a result there has been an apparent move by farmers to let out part of the production/labour process to sub-contractors to protect their central investment (Finemore & McAllister, 1999). Their core labour now comes from ‘family-farm/owner-operatorship’. Peripheral labour is in the form of contract harvesting, with the contractors themselves often being farmers, or farmers’ sons, supplementing or diversifying their income.

In agriculture around the world, the permanent workforce has been declining in recent years while the more flexible forms of labour have been growing. In fact, it has been asserted (Pugliese, 1991, as cited in Collins & Krippner, 1999, p. 514) that flexibility is increasing “even more rapidly in agriculture” compared to the rest of the economy. And yet, the longest employment tenures are found in agriculture (Auer & Cazes, 2002). Instead of investigating the reasons for the decline in permanent labour, Collins & Krippner (1999) asked the question as to why there is permanent labour at all in an industry where there is seasonal production and a relatively low level of skill is required. Their study of the export grape industries in Chile and Brazil confirmed the theory that permanent work, when there is a casual labour force available, induces workers to put in more effort which reduces the cost of supervision. Labour costs need to include the cost of supervision as well as the pay (Eswaran & Kotwal, 1985a). Eswaran & Kotwal (1985b) stated that permanent workers will be employed where their tasks require judgement, discretion and are difficult to monitor, which are all characteristics of family labour. On the other hand, the use of skilled contractors would reduce the need for supervision, an aspect reflected in their higher cost.

Blanc, Cahuzac & Elyakime (2008) point out that studies of the demand for hired labour are scarce, and even those that have been done have not distinguished between permanent and seasonal wage labour on the basis that they are substitutable. The above discussion suggests that these two forms of labour are not substitutable at all. Their own study considered whether the family’s off-farm work impacted on the decision to employ permanent labour, but it did not consider the other labour options of farmers.

2.5 New Zealand Agriculture – An Historical Perspective

New Zealand’s economy has always been highly reliant on agriculture. The settlers from the United Kingdom initially took up extensive pastoral farming for wool production. In 1882, the introduction of refrigeration prompted a change to smaller farms, which were able to utilise family labour to produce meat and dairy products. A brief historical overview from the 1980s sets the scene for today’s farm labour issues.

From the 1970s and into the early 1980s agriculture had slowly become more protected. By the early 1980s state interference was no longer producing economic growth. It was considered that government subsidies and assistance were hindering the economy by distorting it. A Labour Government, elected in 1984, took drastic action to return New Zealand to a freer market economy. The Government instituted changes to encourage moves from inefficient domestic market production to more efficient production for export through deregulation, corporatization and privatization (Cameron & Massey, 2000). The New Zealand dollar was initially devalued, and then a short time later floated. Export assistance was discontinued and import protection was lowered. Jay (2004) claimed that the most severe impacts on farming came from the economy-wide policies, particularly the floating of the currency, which caused interest rates to rise, rather than the removal of the subsidies.

In the agricultural sector, subsidies had been around 33 percent of output and over a period of about three years this was reduced to around 2 percent (Cameron & Massey, 2000). Robertson, Perkins and Taylor (2007) suggested an even higher 40 percent of rural people's gross incomes came from the government. Subsidies for fertilizer and its transport were phased out, along with those for weed control. The Supplementary Minimum Prices (SMPs), which made up 25 percent of total farm subsidies and had primarily gone to support sheep farmers, were withdrawn (Smith & Montgomery, 2003). Dairying, by contrast, had few subsidies. The little support remaining went to research. Extension services and other government services, formerly provided by MAF, became user-pays services (Murray-Prior, Hart, & Dymond, 2000). Termed the 'cold-turkey' era, the effect on the farming sector was immense (Morriss et al., 2001). It was predicted that many farmers would go out of business as a consequence of the speed and severity of the changes.

Inefficient farmers who had been protected by subsidies were now completely exposed to market competition (Frenley & Engelbrecht, 1998). Farm incomes plummeted, and in some areas of the country, drought exacerbated the farmers' problems. Sheep and beef farmers were affected to a much greater extent than dairy farmers and they developed a range of responses to the changes. Initial reactions were to cut spending on farm inputs. Fertiliser sales dropped by almost 50 percent; non-essential repairs and maintenance stopped; land development ceased; other capital expenditure stopped and hired labourers were laid off (Smith & Montgomery, 2003). Farm labour patterns changed. The hired labour was replaced by family labour. At the same time there was an increase in off-farm work (Drummond et al., 2000). Coombes and Campbell (1996, p. 14) grouped these responses into three predominant actions. Firstly, farmers changed their farming practices to move away from commodities with falling

prices towards new crops or stock types, which they termed the 'sheep/crop pendulum'. Secondly, there was a widespread reduction in farm inputs and personal spending ('belt-tightening'), and thirdly, the use of family labour increased at the expense of paid labour. As a result of the changes, New Zealand agriculture diversified. The main shift has been from sheep and beef to dairying, viticulture, horticulture and forestry. Agricultural exports now tend to be more processed and of higher value (Smith & Montgomery, 2003).

Despite the dire predictions, not as many farmers were forced to sell up as expected. The main reason is that most of the badly affected sheep and beef farmers were family farmers. Family farms are renowned for their adaptability in the face of adverse conditions through their ability to utilize the family members as unpaid labour, or to send them off the farm to bring in an extra income (Errington & Gasson, 1994; Smith & Montgomery, 2003). The response of the family farm to such an adverse event provides a good insight as to how farmers utilize labour and how they manage the labour flexibility needed to respond to their external environment.

2.6 The Family Farm

With increasing pressures on farming to move from labour-intensive to capital intensive agriculture, Alston (2007) has identified three trends. Firstly, some farms are getting larger; these are the corporate farms which are becoming more capitalised. Secondly, there has been a significant growth in lifestyle blocks on peri-urban land, while thirdly, in the middle range the family farmers are becoming increasingly reliant on off-farm income in order to remain farming. These trends are also evident in New Zealand (MAF, 2009). However, the family farm is still the core of agriculture world-wide and New Zealand is no exception (Brookfield, 2008; MAF, 2009; Mouton & Korkie, 2000). While Mouton and Korkie define the family farm merely as a land-based business which is managed by a family, this overlooks the labour and capital aspects of family farms. A more comprehensive definition suggests that business ownership is combined with managerial control by business principals, who are related. Family members, including the business principals, both provide the capital and carry out the farm work. The business ownership is passed onto the next generation. Family farmers are business focussed but there is an intricate relationship between their business and their way of life (Fairweather & Keating, 1990). Because the family lives on the farm, it makes it difficult to separate business from lifestyle (Gasson & Errington, 1993).

The issue of how much labour the family provides has been debated (Brookfield & Parsons, 2007; Gasson & Errington, 1993). To accurately determine how much of the annual work input is carried out by the farm family and unpaid helpers would be a difficult task. Within New Zealand, most family farms would employ outside labour during the year, in the forms of permanent or casual labour, and often contractors. However, the management always remains with the farmer (Brookfield, 2008). Due to the seasonality and the unpredictable nature of farming, Brookfield and Parsons (2007, p. 47) say, “flexibility in farm use of labour is essential. Sufficient flexibility can rarely be provided within the farm family alone”. A further consideration is the fact that farm families have different labour requirements throughout the life of the family, depending on whether there are young children requiring full time care, or young adults or grandparents available to supplement the labour supply (Gasson & Errington, 1993). While teenage children are often employed for farm work and/or household work, there is a global trend for education to extend over longer periods. This has reduced the ‘child’ labour source and also provided farm children with the means to obtain off-farm jobs (Alston, 2007; Brookfield & Parsons, 2007).

Gasson and Errington (1993, p. 118) noted that the use of a contractor supplied a “substantial labour input as well as specialized machinery and equipment”. They pointed out that the labour component of the contractor’s work can be significant in some forms of contracting, such as the specialist stockman or shepherd and, in the case of dairying, relief milk workers are supplying labour only. The range of flexible labour outlined in Table 2-1 allows the farm family business, with its small core of permanent labour, to capture economies of specialisation and to buy in both expertise and specialist equipment. Managerial skills can also be purchased from farm advisors, accountants and a variety of specialist consultants.

Table 2-1 Potential sources of farm labour

	Unpaid labour	May be paid or unpaid	Paid labour
The regular workforce	Farmer Spouse	Successor(s) Other children	Permanent labour – full-time or part-time
The flexible workforce	Semi-retired parents	Children in full-time education Neighbours Kin	Contractors Seasonal workers Casual workers Advisors/consultants

Source: Adapted from Gasson & Errington, 1993, p. 119.

While this model provides a more accurate picture of farm labour than that of Atkinson's (1984), it also fails to take into account the fact that the farmer/spouse may also have off-farm work or may produce non-pastoral income from diversification activities on the farm.

The strengths of the family farm over corporate structures are its resilience and adaptability to changing economic and climatic events, such as drought or floods (Fairweather & Keating, 1990; Gasson et al., 1988; Gasson & Errington, 1993; Johnsen, 2004; Mouton & Korkie, 2000). Brookfield (2008, p. 114) believes this is due to the internal flexibility provided by the family mode of decision-making. In addition, he considers that family farms can pay above the going rate for credit and "can survive low prices for outputs that would bankrupt a wage-labour farm". They do have a greater willingness to reduce drawings and general farm expenses compared to corporate farms (MAF, 2009). Despite this, if there are surplus labour requirements within the family, the farmer may not be able to use economic rationality as a criterion to make family members redundant (Gasson et al., 1988).

Finally, the family farms play a vital role in the economic and social fabric of rural areas as they purchase goods from the local stores and sustain local farm support businesses such as transport, machinery supplies and local tradespeople, and their children attend the local schools (Alston, 2007; Gasson et al., 1988). Historically, family farmers have contributed significantly to industry leadership, particularly through directorship of cooperatives, due to their ability to devote time to off-farm activities as the younger generation begins to take over the farm (KPMG, 2010).

2.6.1 Farm family responses to adversity

Sheep and beef farmers around Gore had responded to falling commodity prices and economic uncertainty following deregulation in a variety of ways (Wilson, 1994). Some made no significant changes to either their commodity mix or their income sources. Others diversified and/or sought off-farm sources of income, while some altered their selling behaviour. There was a decline in the use of hired labour. Wilson (1994, p. 8) also said that there was a decline in the use of contractors but that "trends were difficult to identify as farmers tend to change their policy from year to year". While some farmers tried to become self-sufficient by owning machinery and using family labour, others chose to hire contractors. Some middle-aged farmers took over tasks such as shearing and fencing, and some even took to grubbing weeds to save on the costs of spray (Smith & Montgomery, 2003; Smith & Saunders, 1995). Many farmers claimed they wouldn't increase permanent labour even when prices improved, although they might make greater use of contractors or casual labour.

Johnsen (2004) agreed with Wilson that many farmers changed production to low input, 'easy care' practices in order to reduce the amount of labour required. However, while the Waihemo farmers in her study restructured using less actual labour, they utilised both the unpaid labour of family and/or friends, and also increased their use of flexible part-time or contracted labour. So while they reduced permanent core labour they replaced it with peripheral labour. At the same time, members of the family often gained off-farm employment. It is worth noting that the flexible labour pool of the past, neighbouring farmers, was constricted due to their off-farm employment as well. Hay-making was no longer a community activity.

Fairweather (1992) analysed farm statistics to determine the effects of deregulation. From 1984 to 1990, family farm labour increased from 74 percent to 77 percent of total on-farm labour while the permanent and casual workforce declined from 26 percent to 23 percent. The figures also indicated an increase in full-time workers at the expense of part-time workers, as well as more women and less men working in agriculture. There was an increase in family labour and a decrease in paid labour, as was indicated in the qualitative studies of Wilson (1994) and Johnsen (2004). The figures also identified an increase in the amount of unpaid family labour, providing evidence that the response in difficult times is to 'exploit' family labour. Unfortunately Fairweather did not consider the changes in the use of rural contractors. Interestingly, productivity showed a distinct change from 1984. Prior to this productivity had increased at an average of 1.5 percent per annum, and after 1984 the increase was 2.5 percent (Sandrey & Vink, 2007).

Alston (2007), Fairweather (1992) and Johnsen (2004) all pointed to the resilience of the farm family and suggested that it is far from the decline predicted by commentators in recent years. In fact, Johnsen (2004, p. 13) argues that "[family farming's] dynamism suggests that it deserves to be placed back at the forefront of the research agenda in rural studies". These authors also indicated the growing importance of off-farm work, which may also be termed as multiple job-holding (MJH) or pluriactivity. Multiple job-holding is defined as "paid or unpaid work for more than one employer or family business or farm in the course of the most recent week" (Taylor et al., 2004, p. 72).

English farms are also becoming increasingly dependent on the labour provided by farming families (Errington, Shepherd, & Daw, 2001). Lobley and Potter (2004) found that 50 percent of the respondents in their survey had shed at least one full-time job or its equivalent in the previous five years. Their farmers earned 69 percent of their total income from their farms, indicating that farming families are becoming increasingly dependent on diversified income,

some from on-farm non-agricultural activities, but most of it from off-farm employment. McKinnon, Bryden, Bell, Fuller and Spearman (1991) concluded that, based on family members of the farm household undertaking any regular or seasonal involvement in any income earning activity apart from primary agriculture, 62 percent of their 6000 European households surveyed were pluriactive. Men tended to work as labourers on larger farms while women tended to have professional positions, particularly in education (Garnett & Lewis, 1999). Alston (2007, p. 21) claims that 50 percent of Australian farm families are reliant on pluriactivity “to maintain their precarious attachment to farming”.

This mirrors the New Zealand situation despite the fact that English farms gain considerable income from farm subsidies. Multiple job-holding is much more of a feature of rural areas compared to urban areas. Census figures indicate that multiple job-holding is undertaken by over 20 percent of the population in rural areas compared with 8-9 percent in urban areas (Taylor et al., 2004). If anything, these figures are likely to understate multiple job-holding on farms due to seasonal work; unrecorded informal work; and where farming is the second job rather than the primary job (this is not recorded). More women, and more farmers from sheep and beef farms than dairy farms, are involved in multiple job-holding. Women are often involved in occupations such as nursing, education and banking, while men are more likely to have second jobs relating to agriculture such as contracting or working on other farms. In Taylor et al.'s (2004) survey, pluriactivity helped to maintain household income and farm equity as well as help with retirement and family succession, yet less than 20 percent of respondents indicated that their off-farm job was essential for farm finances. Most worked off-farm for a range of social and personal reasons.

In one study, 81 percent of respondents had more than one job so that they could earn a higher income level than was possible from one rural job (Robertson et al., 2007). In a survey undertaken by Rhodes and Journeaux (1995), 37 percent of the work taken off-farm by 153 farmers was agriculturally-based work. 40 percent of the farmers had had to hire more labour as a consequence of working off their farms but the type of labour was not identified. With the substantial increase in both off-farm employment and the labour required for additional farm enterprises, considerable stress has been placed on farming families (McCrostie Little et al., 1997). However, McCrostie Little et al. (1997, p.54) pointed out that “contemporary research into farm work lacks data about the total labour input to farm and household”.

A study of North Island sheep and beef farmers where both partners had off-farm work, looked at how they managed their farms with less labour available (Parminter, 1997). They used a range of strategies. Stock numbers tended to be reduced and greater use was made of

labour saving devices, such as extended term drenches and ATVs. Family labour was replaced with either casual or part-time labour, and/or contractors were employed as labour replacement for tasks such as fencing, shearing, thistle spraying, dipping and crutching. In addition, the off-farm income was often used for farm development which increased contractor use for fertiliser application, for example.

2.6.2 Farmers' goals and objectives

In order to have a better understanding of labour mix decisions, it is necessary to look at the goals and objectives of farmers as these will influence the choices made. From the variety of responses of sheep and beef farmers to the 1984 deregulation it is obvious that they have different goals. Family farms, with the intricate relationship between family lifestyle and farm business, along with the need to grow if succession is to take place, tend to have more complicated goals than other small businesses. Financial gain is not necessarily the primary objective of the farmer (Gasson et al., 1988). Emotions and sentimentality may be mixed in with rational calculations and objectivity (Shadbolt & Rawlings, 1999). Share, Campbell and Lawrence (1991, p. 10) offer a list of extra-economic objectives: “the independence of being self-employed, family-farming tradition, the identity, prestige, self-esteem and pride that farming affords, and the strength of local community networks”.

A qualitative study comparing the uptake of innovation by both dairy farmers and sheep and beef farmers identified basic differences in farmers between these two sectors (Morris, Loveridge, & Fairweather, 1995). While sheep and beef farmers did farm for production, they placed a high emphasis on risk management as a consequence of their 1984 experiences, plus their vulnerability to climatic conditions. On the other hand, dairy farmers could be divided into two groups: those who aimed for the highest possible level of production, and those who considered self-sufficiency to be important. As a consequence, sheep and beef farmers were likely to take up strategies and technologies which would increase efficiency and minimise any risk, while dairy farmers favoured technologies which would increase production and profitability.

The results of this study were reinforced by findings from the ARGOS⁷ sheep and beef farmers. It found that the typical farming couple adapts their management to climatic extremes. They tend to adopt a conservative approach by producing below the farm's potential in order to cope with the risks of physical events or market vagaries (Hunt, Rosin,

⁷ The Agricultural Research Group on Sustainability (ARGOS) is an unincorporated joint venture between the Agribusiness Group, Lincoln University, and the University of Otago, with a mandate to examine the environmental, social and economic sustainability of New Zealand farming systems.

Read, Fairweather, & Campbell, 2006). While gaining financial success was important, the most important factors for the farmers were, in order of importance: the 'decision maker', then 'production and satisfaction', followed by 'fertiliser and soil fertility health', 'family', 'weather', and finally the financial aspects of 'cash farm income and farm working expenses' (Fairweather, Hunt, Rosin, Campbell, & Lucock, 2007, p. 27).

Cant and Woods (1968) suggested that job satisfaction is an important goal for many farm employers. Therefore, in instances where farmers have difficulty relating to staff, "the farmer concerned may have to reconcile himself to the fact that he lacks an important skill and be prepared to do without permanent hired labour" (p. 30).

Shrider (2007), who looked at the challenges facing contractors in the forestry industry in New Zealand, believed that using contractors was one way of passing on the risk involved in investing in expensive and specialised machinery, to another sector. Previous forestry workers were told by the forestry companies to start up as contractors. These contractors became responsible for the new entrants into the industry and it appeared that a good forester is not necessarily a good manager (Forme Consulting Group, 2001, as cited in Tucker, 2002). They noted that the piece rate method of payment, while encouraging production, discourages quality and safety, sound work methods and sound skill development for trainees. The forestry industry faces parallel problems to the pastoral industry in both labour and skills shortages, and in the use of specialised machinery, so the use of contractors in agriculture may be a risk aversion strategy for some farmers.

It has long been considered that because the family farmer both lives and works on the farm, there is an element of a lifestyle attraction to farming. In fact, according to Bollard (2006), the high prices paid for land reflect not just the future flow of income from the land, but also a 'rural lifestyle premium'. Blanc et al. (2008) said that farm families tend to maximise household utility rather than profits. Household utility is usually dependent on both leisure and consumption. Both job satisfaction ('psychic income') and the production of 'Z' goods, which are a whole range of activities that are not part of the farm income, are important influences (Gasson & Errington, 1993). 'Z' values might include such things as the opportunity to exercise for sport and recreational activities during work time, or to train horses for eventing, or dogs for dog-trialling while on the job (Smart, 2009).

A further consideration with family farming is that intergenerational succession is often a goal which may influence farmer choices (Gasson & Errington, 1993). It appears that the state of the agricultural economy is seldom a deterrent to the drive for ensuring the continuity of

families on the land (McCrostie Little & Taylor, 1998). In the past, going shearing was seen as a way of raising finance for the young men who wanted to own their own farms. Share-milking in dairying offered young people a pathway towards farm ownership (Tipples, 1987). Does rural contracting offer such a pathway in the sheep and beef industry?

Fairweather and Keating (1990) identified three different management styles amongst Canterbury farmers. The first they called the “dedicated producer”: mainly younger farmers who work hard and plan carefully to produce a top quality product and to be the best possible farmer. The second management style was the “flexible strategist”: a person who values marketing, information for decision-making, diversification off-farm, family, and is aware of the environment. They pursue business to achieve a desirable life and do not want family members to feel obliged to work for them. The third style they called the “lifestyler”. This person values the environment, family, equality and nature. They like to employ family members and are not out to make money. Farming is a stress reliever for these farmers. Thus, each management style has a combination of goals which recognise the tension between business and way-of-life goals. Each management style is likely to make different choices about their labour mix which will also change over time.

2.7 Changes since Deregulation

Over 20 years have elapsed since deregulation so drastically affected the pastoral industries. Along with the technological advances since then, the overall impact on New Zealand agriculture has resulted in significant changes. The most obvious change has been a movement away from sheep and beef into dairying, since dairying was not affected to the same degree and has not, until very recently, suffered from the same volatility in prices. Prior to the 1980s, sheep and beef farming was the predominant industry sector. In 1970, wool made up about 19 percent of New Zealand’s total exports, meat 33.5 percent and dairy products 19.7 percent (Sandrey & Vink, 2007). At that time agricultural produce accounted for 74 percent of total exports. By contrast, in 2005 wool was a mere 2.7 percent, meat had fallen to 15.8 percent and dairy was similar at 20.5 percent (although its contribution had fallen in between times). By this time agriculture contributed 44 percent of total exports (Sandrey & Vink, 2007). Dairying and viticulture had taken over the flatter land, particularly in the South Island, Hawkes’ Bay and the Wairarapa, displacing around 6.5 million sheep and beef units in the last 15 years (R. Davidson, 2007).

The price volatility facing farmers can be illustrated by the fact that over the last 11 years, the average lamb price was \$57 per head. However, the average price ranged from \$39 to \$71

during this period (KPMG, 2010). Beef faced a similar level of volatility with a range of \$517 to \$966 for an 11 year average of \$763 per head.

Between 1984 and 2005, the numbers of sheep and beef farms have declined but these farms have become 17 percent larger. The sheep flock dropped by 31 percent to 40 million while dairy cattle rose by 50 percent to 5.2 million between 1990 and 2007. Yet, from 1990 to 2006 the national lambing percentage went from 101 percent to 121 percent, the average lamb weight rose from 14.35 kg to 17.18 kg and the average steer weight from 297 kg to 314 kg. This has been attributed mainly to genetic gains and improved nutrition. While the national sheep flock dropped by 31 percent, there was a 12 percent increase in lamb production (R. Davidson, 2007). Butson (2008) attributed the increasing farm sizes to a range of factors including: the need to grow the business for succession reasons; perceived economies of scale; the availability of capital; new types of ownership structures; changing use of technology; and improved management techniques. Increasing farm size often results in increasing physical and business complexity for the farm manager/owner.

Although the 1990s continued to be a difficult period for sheep and beef farmers due to fluctuations in the exchange rate, farmers still continued to invest in applied technology and management systems, along with a range of other innovations. On New Zealand sheep and beef farms, total labour units fell 10 percent from 2.08 per farm in 1981-82 to 1.88 in 2006-07. Over this same period, stock units per labour unit rose 51 percent from 1,433 units to 2,169 units and effective hectares per labour unit rose 37 percent from 349 hectares to 477 hectares⁸. Labour productivity increased dramatically along with increases in production. Usually an increase in lambing percentages is associated with an increase in labour requirements. Better nutrition requires the re-sowing of pastures and/or the making supplementary feed, both of which would indicate a higher labour requirement.

McDermott, Saunders, Zellman, Hope and Fisher (2008, p. 3) believe that the “sheep meat industry has been radically transformed through the adoption of innovations” due to the internal and sector developments, and the external pressures from customers, governments and competitors. The use of on-farm technologies along with the introduction of genetics from the highly fecund breeds have contributed to the rise in lambing percentage. The use of scales; pregnancy and eye-muscle ultrasound scanning; and selective breeding for growth and disease resistance have resulted in the higher lamb weights to the extent that, despite the reduction in the national ewe flock, the total tonnage of lamb produced has grown since the

⁸ Source: Sheep and Beef farm survey, Meat and Wool New Zealand Economic service.

early 1990s (McDermott et al., 2008). Other significant innovations have revolved around new pasture species, feed conservation, and improvements in fertiliser use.

By contrast, in other countries, such as Denmark, Germany, France and Australia, the combination of a decrease in the number of on-farm active family members per farm along with the increasing average size of farms has actually increased the number of permanent employees (Blanc et al., 2008). In New Zealand this had not occurred, with the percentage of hired farm workers remaining around 41 percent of total labour units for the decade 1986 to 1996. There is the possibility that a whole range of routine farm tasks from shearing and fencing; through cultivation and harvesting; to weed and pest control are now being undertaken by contractors. With their specialised skills and equipment they may be making a valuable contribution to farm labour productivity, but the consequence may be a reduction in the functional flexibility of the permanent employees.

A labour and skills shortage in all rural sectors in the 1990s attracted attention from researchers (McCrostie Little et al., 1997; Stevens, Roth, Small, & White, 2007). Most of the recent research focus has been on the thriving dairy industry with little attention paid to the less vibrant sheep and beef sector, despite Stevens et al. (2007) finding that sheep farmers were the most pessimistic of all groups about the current availability of labour.

In their study of “unpaid farm work”, McCrostie Little et al. (1997) interviewed predominantly cropping/sheep and beef farmers in Mid and North Canterbury. All but four of the 26 respondents employed casual workers, usually on a seasonal basis. They were used for high labour tasks such as shearing, lambing or feeding out, and annual tasks such as machinery maintenance and hedge trimming. All of the farmers employed contractors to carry out such tasks as shearing, ploughing, spraying, baling, silage making, drilling, fertiliser spraying, harvesting, fencing, hedge trimming, water race cleaning and machinery maintenance plus some farm development. “The most common change identified was a shift away from the employment of permanent staff to the use of more casual staff and contractors in particular” (McCrostie Little et al., 1997, p. 7). This study also pointed out the role technology has played in replacing labour with machines. Four wheeler bikes are a good example where a machine has enabled many farm jobs to be done more quickly and cheaply. Round balers, silage handling equipment, electric wool presses, mobile sheep yards, crutching machines and post drivers are other examples of labour-saving contributors.

One issue that may have implications for contractor use by farmers is the increasing age of farmers. While New Zealand does not have a consistent set of agricultural statistics, there has

been an indication that the average age of farmers and farm workers has been rising steadily since 1981, with fewer young entrants into agriculture (Fairweather & Mulet-Marquis, 2009). In 1976, the rural median age was 1.2 years below the urban median age but by 2006 the rural median age was 2.7 years above the urban median age (Mulet-Marquis & Fairweather, 2008, p. 12). With the difficulties farming has faced over the last two decades, farmers are encouraging their children into qualifications beyond farming (McCrostie Little & Taylor, 1998). Fairweather and Mulet-Marquis (2009, p. 124) believe that “farming no longer has the same status it once had” and that “male farmers find it harder to meet women willing to take on the farming life”. They suggest that as age rises, there may be a drop in productivity. Traditionally, the new farming generations have been the up-takers of new techniques and the users of new technology (McCrostie Little & Taylor, 1998).

2.8 The Role of Rural Contractors on Farms

“Entrepreneurial farm contractors working on both large and small farms, have created an element that both enlarges and reduces family operation” (Brookfield & Parsons, 2007, p. 213). As noted earlier, farm-based pluriactivity often involved working for other farmers, either on a casual or a more professional basis. From this emerged the farm contractor, “perhaps the most successful of pluriactive enterprises, though many end up becoming specialists” (Brookfield & Parsons, 2007, p. 187). While this is the case in Europe, to what extent does this apply to New Zealand?

Two studies have been undertaken in the UK, to look specifically at agricultural contracting. Ball (1987) had noted the increasing trend towards the use of agricultural contractors, so carried out a survey of over 200 farmers. He discovered that over 70 percent of farmers used at least one contractor for ploughing, hedge-cutting and pruning, harvesting, silage and hay making, planting, drainage work, spraying, fertiliser application or shearing. There had been a trend away from the use of an internal highly-skilled labour force to ‘casual’ labour (including the use of contractors) in an effort to cut costs. Simultaneously, there had been a growth in the contracting sector; some of these contractors were farmers diversifying their activities. Contracting allowed farmers to gain adequate mechanisation levels. The smaller farmers tended to use them for regular tasks such as ploughing, sowing and harvesting as they could not justify purchasing machinery designed for high volume throughput. Larger farmers utilised the specialist services such as ditch digging, spraying and hedge cutting.

In the second study, Wright & Bennett, (1993) found that agricultural contracting was playing an increasingly important role in UK agriculture, with contracting expenses making up to over 8 percent of the variable costs on farms in the predominantly arable Reading area. It considered the wide range of activities which contractors provided, but placed the emphasis on crop production. In reviewing these two studies, on the basis that the UK is the most advanced European country with respect to the use of agricultural contractors, Igata, Hendrikson and Heijman (2008) add that culture and tradition also influence the degree to which farmers utilise agricultural contractors. They note the diminishing level of cooperation between farmers for labour sharing due to the falling rural population and ageing of farmers. In addition, they claim that “agricultural contracting will be a key in the preservation of family farming, regional agriculture and rural society” (Igata et al., 2008, p. 29) but maintain that agricultural contracting has not been investigated in sufficient depth. The same could be said to apply to New Zealand where the level of, and reasons for, contracting use on farms are currently unknown.

Potter (1985), a professional contractor in the UK, employed 19 full-time staff and four seasonal workers in 1975. He offered ploughing, cultivation, sowing, silage and hay, drilling and manure spreading; adding lime spreading in the 1980s. Sales of his services grew by 178% between 1975 and 1980 owing to the decrease in permanent farm labour due to low wages, along with the introduction of technology such as direct drilling, the use of Round-up and the autumn sowing of cereals. In any three month period the pattern and demand for his services was “only being affected by the vagaries of the weather” (Potter, 1985, p. 36).

His seasonal staff came from two main sources: from [agricultural] colleges and in response to newspaper advertisements. Those coming from the colleges were the most desirable as these students had a background in agriculture, some ability and aptitude with machinery, and were willing to work for long hours over long periods. Local newspaper advertisements yielded a range of applicants, but those selected needed a liking for farming or outdoor work, could handle machinery and were willing to accept instruction and training. He tried “to avoid employing casual staff with casual attitudes” (Potter, 1985, p. 39). He resorted to hiring sub-contractors if necessary. Potter believed that changing economic conditions would make it increasingly difficult for medium sized farmers to finance the replacement of expensive machinery, so that contractors would play an increasingly important role in the future.

One of the few New Zealand studies which has considered the role of contracting within New Zealand, noted that there had been a steady upward trend in the number of contracting businesses (Morriss et al., 2001). This trend was attributed to the introduction of the

Employments Contracts Act 1991, after which businesses were encouraged to have more numerical flexibility through the use of independent contractors. In a survey of 651 respondents, 37 percent reported increasing their use of contractors from 2000 to 2001. The most common reasons for this were: continuing property development through improvements or increases in size; contractors did not require training; and financial reasons such as to avoid tax or to utilise available funds. Only 4.4 percent related their increasing use to a drop in permanent staff. 38.6 percent of the use of contractors was for cultivation, harvesting, top-dressing and other activities requiring the use of plant and machinery but this did not include development work. Thus, there appears to be a discrepancy between the actual type of contracting carried out and the reasons farmers gave for using contractors.

Tipples (2004) argued that farmers had avoided the need to employ more permanent staff in times of labour shortages, by making greater use of contractors. Using contractors also gives farmers some power (McCrostie Little et al., 1997); if the work is not up to standard, then a new contractor will be employed the following season. McCrostie Little et al. (1997) also suggested that maybe the residential farm worker hadn't been replaced by family labour, since family labour has always contributed anyway, but by contract labour instead.

A recent case study looking at aspects of the shearing industry suggests that with over 7,500 people working in the industry, it is a major employer in the agricultural sector (Pullin & Tipples, 2008). Shearing is a skilled and highly physical job, facing the same seasonal nature of some other contracting sectors, such as forage making and harvesting. However, with the globalisation of the labour market, shearers are able to work their off-season in Europe (Tipples, 2008). Pullin, a shearing contractor in Canterbury, divided his employees into three groups. The first group he called the 'core' based on Atkinson's (1984) model. These were the stable and reliable employees with a good attitude and good communication skills who were available for work throughout the year. Despite this, his 'core' employees averaged only 125 days of work a year. The second group he called 'industry staff'. They were those employees who were highly skilled in task specific jobs such as wool handling or pressing, had a good work history and had the ability to move to where there was work. They averaged 35.5 days a year. The third group were the casuals, who were inconsistently available and had varying skill levels. With only 15 days employment a year, they came from a range of sources such as older shearers, university students, second or third jobbers, or potential new entrants. Core workers serviced most of the demand, while the industry labour supply was used to meet seasonal demands and the casual labourers were fillers for daily requirements.

In the forestry industry, industry knowledge and expertise has passed from the forest owners to the contractors (Shrider, 2007). In certain areas, such as agrichemicals and fertilizer use, this is already happening in pastoral farming. Is there a declining level of skill required from permanent employees and even from the farmers themselves due to the increasing use of contractors? Another issue raised by Shrider (2007) was the level of investment in specialised machinery. Within forestry, contracts have tended to be short term with the resultant insecurity causing contractors to be reluctant to invest in expensive new innovative machinery. What induces rural contractors to be innovative: is there sufficient demand, certainty and competition within the industry to drive innovation and increasing knowledge? While there are some qualifications available to contractors, are these valued and sought after?

For contractors providing services requiring machinery there can be a large investment and, consequently, indebtedness involved in their business. If competition is fierce then they will be forced to try to improve their efficiency of machinery use through working longer hours (Finemore & McAllister, 1999). This in turn has important consequences for their employees who will have to work long, unsociable hours. In addition, the seasonal aspect of planting and harvesting has considerable implications for the utilisation of both labour and expensive machinery for the contractor.

Contractors provide a wide range of services. Some of the services require a high degree of skill and knowledge such as spray application and fertilizer recommendations. Others require sophisticated machinery as with cultivation and harvesting. Others require a labour/skills combination such as shearing, shepherding and fencing, while docking gangs would only provide unskilled labour. Ko (2003) points out that non-standard work can be a substitute for core labour, or a complement to it. It would appear that contractors can be either, depending on the service they are offering.

Blanc (1994) goes as far as to suggest that eventually the only tasks that family members on small farms may undertake are managerial ones, such as deciding what to produce and how to market the produce. Otherwise they will simply call on contractors to do the tasks needed. Finemore and McAllister (1999, p. 245) quoted a contractor as saying, "Some people don't like contractors because ... they go through too fast, or they don't cut it the way you want to do it..." implying that there may be problems in the contractor-farmer relationship.

A useful tool for analysing the relationship between farmers and contractors could be the Human Capability Framework which was launched by the Department of Labour in 1999

(Tipples, 2004). While it is primarily used as a model to consider labour market, social and educational policies, it can also provide insight at the firm interface. The model consists of two sides: capacity influences and labour market opportunities. These are linked by a matching process which considers the rewards to both parties. On the capacity or supply side, a wide range of capacity influences are described. These relate to the skills, training and societal influences that create the 'capacity' of a person. On the labour market opportunities or demand side, the influences are also identified. These include such aspects as the business and economic environment, relevant legislation and entrepreneurial attitudes. The use of the framework would ensure that all of the above influences on the farmer-contractor relationship are considered.

Finally, while the theory of flexible labour has been used to explain the use of contractors by businesses, rural contractors do not fit neatly into the usual skilled/unskilled boxes. Farm labour can be a complicated mixture of core and peripheral labour use alongside pluriactivity. Farmers range from those using very few contractors to those using contractors for a large proportion of farm tasks. Furthermore, the picture the literature offers of contractors is rather like a jig-saw puzzle with most of its pieces missing. It is intended that this research will provide more of the pieces so that we can start to see the picture, even if the puzzle is not complete.

Chapter 3

Research Method

3.1 Introduction

This chapter covers the research method utilised in this research project in which the aim was to gain an overview of the use of the rural contracting industry as a source of flexible labour on South Island sheep and beef farms. Section 3.2 examines the rationale behind the method used. Section 3.3 describes the research method selected. Section 3.4 covers ethics and Section 3.5 considers the constraints and limitations of the study.

3.2 Rationale for the Research Method

While the literature provided some insights into farmers' changing patterns of permanent labour use, and the way family labour on family farms is utilised, it failed to do more than mention the increasing use of contractors. With little literature on rural contracting, the methodology was selected with the aim of building up a picture of the relationship between the two sectors, and the factors that influence this relationship. Thus, the research is primarily an exploratory investigation which seeks to both describe and explain the phenomena discovered.

“Qualitative methods can be used to uncover and understand what lies behind any phenomenon about which little is yet known” (Strauss & Corbin, 1990, p. 19). For these reasons qualitative research was selected as the main data source. Quantitative research could not elicit the complex interrelationships between the two parties, nor the way in which farmers make their decisions about employing labour. Quantitative research can show what labour mixes farmers use, but will not enlighten us about their reasons for selecting a particular mix.

Grounded theory which was developed and first described by Glaser and Strauss in 1967, is “the attempt to derive theories from an analysis of the patterns, themes and common categories discovered in observational data” (Babbie, 2004, p. 291). The researcher begins with an area of study and “what is relevant to that area is allowed to emerge” (Strauss & Corbin, 1990, p. 23). Grounded theory is so named because it is “grounded in reality” (Strauss & Corbin, 1990, p. 25), with an emphasis on change and process, and the complexity of interrelationships. This inductive approach is well suited to situations where the researcher

wants to look at a phenomenon with fresh eyes, or where there is not an existing body of literature for the researcher to draw on (as in this case). Strauss and Corbin (1990) suggests that there are three guidelines in the use of grounded theory. The data should be continually analysed as it is collected, allowing the researcher to formulate pertinent questions for following interviews in order to fill holes in the data. Nothing should be taken for granted, with the researcher continually making comparisons and checking theories against the actual data. Finally, research procedures are highly important; “systematic coding is important for achieving validity and reliability in the data analysis” (Babbie, 2004, p. 292). Thus, field results are thoroughly examined for relationships and patterns before theory is used to explain these patterns. As the relevant categories and patterns come together, then is the time to go back to the literature to see if these categories are there, and if so, what other researchers have said about them (Strauss & Corbin, 1990).

3.3 Research Approach

While the major part of the research was based on a qualitative approach, using grounded theory to elicit the patterns and contexts of the relationship between farmer and contractor, a preliminary survey with a small group of rural contractors was also undertaken. This approach is called a two-phase sequential explanatory mixed methods approach (Cresswell, 2003, p. x). A mixed methods approach uses a combination of both qualitative and quantitative data. It is “one in which the researcher tends to base knowledge claims on pragmatic grounds” (Cresswell, 2003, p. 18). Both qualitative and quantitative styles have complementary strengths. As there is only “a partial overlap between the styles, a study using both is fuller or more comprehensive” (Neuman, 2005, p. 150). According to Blaikie (2010, p. 223), the recent move has been “towards regarding multi-method research as a special type of design to be placed alongside traditional research designs”. Flyvbjerg (2006, p. 242) also supports the use of mixed method research saying that, “More often than not, a combination of qualitative and quantitative methods will do the task best”.

There is a range of ways of using mixed methods. There are three pertinent methods relating to a study like this. One is where a quantitative phase produces results that need to be explained, so a follow up qualitative phase is used. Alternatively, a quantitative phase is used to produce information on which to base the selection of participants for the main qualitative phase. A third option is using an initial qualitative phase to gain information on which to base the quantitative phase (Blaikie, 2010). This project used a slightly different approach. A small

survey was undertaken to gain an overview of the rural contracting industry and an appreciation of the major issues facing rural contractors. This information was then used as a basis for the interview guide. Collecting some survey data about rural contractors also effectively extended the sample size, offering a wider picture than through interviews alone.

The second phase, which was the major data source, used the qualitative paradigm in the form of a two-pronged case study approach. It gathered points of views from both farmers and contractors about their employment relationships and the factors which influenced them. Case studies are useful for answering how and why questions, and produce context dependent knowledge. This approach allows a very broad field of research, such as the role of rural contractors in New Zealand agriculture, to be narrowed down into one easily researchable topic. Case studies are useful for producing detailed contextual analysis of a limited number of events and their relationships (Yin, 2003). According to Flyvbjerg (2006, p. 235), “The advantage of the case study is that it can ‘close in’ on real-life situations and test views directly in relation to phenomena as they unfold in practice”. Since this study sought to identify relationships between farmers and contractors, the case study method provided an apposite research method. It is well recognised as a useful exploratory tool (Yin, 2003).

The disadvantages of the case study approach are that the findings may not be reliable and cannot be applied to the whole population. However, Flyvbjerg produces a defence of the case study approach. He believes that formal generalisation is overvalued as a state of scientific development at the cost of the power of examples: “One can often generalize on the basis of a single case, and the case study may be central to scientific development via generalization as supplement or alternative to other methods” (Flyvbjerg, 2006, p. 229).

3.3.1 The survey

A survey was undertaken at the Rural Contractors New Zealand (RCNZ) conference in Invercargill, which took place 19-22 July, 2009. The aim of the survey was to gain a broad overview of contractors attending the conference. These provided an appropriate target group as the RCNZ caters for a wide range of contractors offering services such as land development, drainage, fencing, cultivation and planting, direct drilling, harvesting of crops, chemical application and sheep dipping. The questionnaire (See Appendix C) asked for some basic figures relating to business sizes in terms of investment levels, business types and employment levels. It also included a range of open-ended questions to provide information on the issues concerning contractors, so that these could be investigated through the interview process. The survey was initially piloted on three local contractors.

The questionnaire was distributed during one of the conference sessions and the participants were given time to fill it in there and then. It was not possible to calculate the response rate in relation to the number of contractors at the conference. The registration list contained 88 delegates but this included the suppliers who attended the conference, plus a few retired contractors, and it may not have been the complete list due to late registrations. In addition, not all contractors may have been attending the session when the survey was administered. However, it is conservatively estimated that 65 completed questionnaires represents greater than an 80 percent response rate.

3.3.2 Participant interviewees

Case studies allow for non-probability sampling, which does not seek to establish a random or representative sample. “The goal of qualitative sampling is not to produce a representative sample,” says Barbour (2008, p. 36), “but is rather to reflect the diversity within the group of people.” “Essential and typical” participants were deliberately selected to represent a range of views in their respective industries (C. Davidson & Tolich, 2003, p. 35).

Eleven farmers and eleven contractors were interviewed. Having this many case studies provides triangulation both within each group and across the two groups. While qualitative research does not seek to generalise to the whole population, it should provide a valid description of what those involved think and feel. “Triangulation is the use of multiple sources of information, methods, theories and techniques to generate a variety of data which measure the social phenomena under investigation” (C. Davidson & Tolich, 2003, p. 34). By bringing together different sources of information which say the same things we can have greater confidence in the validity of the findings. At the same time, diversity in results is also to be valued. For example, the last farmer to be interviewed provided a completely different view. Unlike the other ten farmers interviewed, Farmer 11 still used neighbours to provide trucks and trailers and labour for hay-making, and also operated a shared machinery pool.

The farmers

In the case of the farmers, the researcher aimed to have a geographical spread of farmers from a range of farm types based on the Meat and Wool New Zealand Limited⁹ land class classification system. The farmers came from Southland (2), Otago (1), South Canterbury (1), Mid Canterbury (1), Central Canterbury (2), North Canterbury (2), Banks Peninsula (1) and Marlborough (1). Individual farmers have not been linked to their geographical area in order

⁹ Meat & Wool New Zealand Limited changed its name to Beef + Lamb New Zealand Limited (B+LNZ), effective from 1 July 2010.

to protect their identity. The sample included one high country Class 1 farmer with less than one stock unit per hectare. Four farmers were classified as Class 2 Hill Country farmers with between two and five stock units per hectare. Three were Class 6 Intensive farmers with between six and ten stock units. The final two were Class 7 Southland Plains farmers with over twelve stock units per hectare.

The farmers interviewed were sourced in a variety of ways. Two of them were met at a Silver Fern Farms seminar held at Lincoln University. Using the snowball technique, contractors suggested two of the farmers. In three instances, friends suggested suitable farmers that they personally knew. Meat and Wool New Zealand offered a list of possibilities for one region. One farmer resulted from a newspaper article and one farmer came from a chance meeting at a service station.

The contractors

The rural contracting industry is a hugely diverse industry with a wide range of services provided. It can be difficult to determine who is a contractor and who is a casual worker. Contractors provide ‘contracts for services’ which Rasmussen and Lamm (2002, p. 54) describe as “work for others under contract to provide distinct jobs or services”. Oldfield, Fryer and Haynes (2001, p. 30) identify the key features of a contractor:

- The contractor controls and manages the work
- The contractor may take work from other principals
- The contractor may work any hours of own choice as long as the work is completed
- Tools and equipment are provided by the contractor
- The contractor is paid for the job as a whole
- The contractor is in business on his/her own account
- Sick pay, holiday pay, PAYE are all the responsibility of the contractor
- Contractors may send someone else to do the job, including their own staff

In addition, payments made to contractors are subject to 15% withholding tax unless they hold an exception certificate which exempts them from withholding payments regulations. The contractor is responsible for his/her own tax and Accident Compensation Corporation (ACC) payments, and can claim tax deductions for legitimate business expenses. They may be GST registered (Sibbald, 2004).

It was impractical for this research project to cover all the actors given the time and budget constraints, so some possible candidates were excluded. Shearing was omitted. At the time of planning, a paper was about to be published on this industry (Pullin & Tipples, 2008). Farmers’ views of their shearers were sought, but no shearers were interviewed. Professionals such as accountants, veterinarians, lawyers and farm consultants were also excluded to further

reduce the list. The possibility of using paired contractor/farmers was considered, but due to the fact that any farmer uses a number of contractors, and any contractor has a large number of clients, it was felt that the increase in validity this might yield would not compensate for the constraints that using such a pairing would create, particularly with respect to maintaining anonymity. Due to the use of the snowballing technique of locating interviewees, along with an element of coincidence, there were at least six known farmer-contractor pairings covering forage making, spraying, eye muscle scanning, cultivation and aerial contracting. In all cases, these relationships provided further validation of the contractor data.

The aim was to cover as wide a selection of contractor services as possible within the limitation of numbers. It was also considered important to obtain two contractors from each of the main service areas to serve as a comparison. Thus, there were two contractors whose main business was forage making; two who provided cultivation; two who offered spraying; plus a large company and a small family business from the transport sector. There was one fencer, one scanner and one person from the aerial contracting industry. They were based across the South Island with contractors from Southland (1), Otago (2), Mid Canterbury (3), Central Canterbury (2), North Canterbury (2) and Marlborough (1). Individual contractors have not been linked to the areas that they came from in order to protect their identity.

The rural contractors were selected by a variety of means. Four contractors were recommended by the editor of the Rural Contractor and Large Scale Farmer Magazine on the basis of showing a strong interest in the industry. Two contractors were suggested by farmers, and two contractors were suggested by other contractors in a different sector. One contractor was met at the Lincoln 2009 Field-days; one was met through the Rural Contractors New Zealand, and the last one was suggested by the New Zealand Road Transport Association. Several of the contractors were involved in their industry organisations. While the selected contractors may not be typical of all rural contractors, it was considered that they would provide richer information (Flyvbjerg, 2006).

Other interviewees

Qualitative research is characterised by its iterative process (Barbour, 2008); a process which, in this study, led to the inclusion of three interviews outside of the originally planned and selected farmers and rural contractors. Partway through interviewing the contractors, the researcher decided that it would be worthwhile to talk to a machinery supplier to gain an overview of the agricultural contracting industry. The telephone discussion was recorded and transcribed and felt to make a valuable contribution, as it supported some of the views already

gained and also added a different dimension. In order to determine whether this was a singular viewpoint or not, a second machinery dealer, selling a completely different line of machinery and from a different region, was interviewed. By this stage it was obvious that labour was a highly important issue to all the contractors. The first machinery supplier suggested talking to someone who was involved in placing overseas workers into contracting businesses. As this person had been a contractor, and had done contracting work in the United Kingdom, Australia and the USA, and also had family currently involved in farming, his experiences were considerably broader than those of some of the contractors interviewed. Due to his depth of experience in the labour area of contracting he has been labelled Employment Specialist, while the machinery suppliers are labelled Machinery Supplier 1 and Machinery Supplier 2 in the results section.

The researcher also kept a field notebook to record observations out in the field and casual conversations with farmers and contractors who were not in the interviewed groups. In addition, National Radio, newspapers and rural weekly news publications provided further useful information. The work of contractors is evident as one traverses the countryside. Southland, after a prolonged wet spell in January, provided verification of the extent to which forage contractors work long hours when conditions are right. Within two days of the rain stopping, dozens of harvested paddocks were to be seen, containing thousands of bales of balage across Southland.

3.3.3 Interviews

“The hallmark of interviewing in qualitative research is the use of open questions, which allow respondents to focus on the issues of greatest importance to them, rather than the agenda being determined entirely by the researcher’s interests” (Barbour, 2008, p. 17).

Semi-structured interviews were used to explore in depth the complex decision-making process of individual farmer’s labour choices, as well as to explore the relationships between farmers and rural contractors. (See Appendix B for the Guide Sheets used.) Semi-structured interviews give respondents the opportunity to express their feelings, opinions and perceptions with little input from the interviewer. The substance of the interview is shaped by the respondents, not the interviewer who may use probes to increase the depth of the content. Davidson and Tolich (2003) suggest this is a powerful technique when not much is known about a topic.

All of the farmer interviews were carried out on the farms of the respondents. Eight of the rural contractors were interviewed in their place of work. These settings enable them to feel

comfortable while also offering the researcher a better ‘feel’ for their business than if they were undertaken in some other environment. The interviews started off by gathering basic background information including demographics, education and training, relevant employment history and an overview of the interviewee’s current situation, including how they arrived at this point, along with some basic information about their business. This allowed the interviewees to become accustomed to the recorder and to relax before the open-ended questions.

All of the interviews took place between mid-July 2009 and mid-January 2010. Farming interviews were interspersed with contracting interviews although the majority of farming interviews took place in August and September 2009, in an effort to reach farmers before their busy lambing season. However, the last farmer was interviewed in January 2010, after the researcher decided that a further farmer outside the Canterbury region was required. The material from each interview was usually able to be reviewed prior to the next interview.

The interviews were tape recorded and comprehensive notes were taken, (which proved highly useful in two instances) as a check that the breadth of topics from the guide had been covered. They were transcribed as soon as practicable after the interviews. Table 3-1 shows the sequence of interviews and the research process over the data collection phase of the research.

3.3.4 Data analysis

The quantitative questions for the rural contractors in the survey were analysed to determine the average employment levels for permanent, casual and overseas staff. Investment levels, business structure, client base and services offered were also analysed. The open-ended questions were grouped into themes and ranked according to the frequency with which they appeared. The responses to these questions informed the drawing up of the interview guides.

All the interviews were fully transcribed, a process which enables the transcriber to become fully conversant with the data in each interview and enables patterns to be discerned as they emerge through the interview process. Each interviewee had the opportunity to check the accuracy and content of the transcripts. Then the data were coded into themes and both the commonalities and divergences between and within the two groups explored. The farmer interviews provided information about influences on their labour choices, as well as information concerning their relationships with the contractors. The contractor interviews also provided insights into these relationships, and gave information about the issues which influenced decision making within their businesses. NVivo was used to help with the coding

but during analysis the original interviews were also used to supply the context. Flyvbjerg (2006, p. 238) claims that “the case study is the story itself” and that “the goal is to allow the study to be different things to different people”. For this reason, in the results section, the actors were given their own voices as much as possible.

Table 3-1 Timeline for the research process

Date	Interviewed	Comments
June 2009	Proposal submitted Proposal presentation	Proposal accepted
July 2009	Questionnaires prepared Rural Contractors Conference (19-22 July) Forage Contractor 1 Chemical Applicator Farmer 1 Farmer 2 Transcribing and analysis Interviews returned to respondents	Trialled by three local contractors Completed survey (65 responses) These initial interviews were carried out soon after the conference for geographical reasons.
August 2009	Farmer 3 Farmer 4 Farmer 5 Cultivation Contractor Forage Contractor 2 Farmer 6 Transcribing and analysis Interviews returned to respondents	The emphasis over August and September was to interview as many farmers as possible before lambing started.
September 2009	Farmer 7 Farmer 8 Farmer 9 Aerial Contractor Ag Contractor Spraying and Fertilising Contractor Transcribing and analysis Interviews returned to respondents	Two of these respondents were from outside Canterbury.
October 2009	Farmer 10 Large Transporter Scanner Small Transporter Transcribing and analysis Interviews returned to respondents Use of NVivo for coding	Note that both transporters were interviewed here, one before and one after Farmer 10.
November 2009	Machinery Supplier 1* Machinery Supplier 2 Employment Specialist Transcribing/Analysis/Coding Interviews returned to respondents	*Telephone interview These interviews provided triangulation and a broader perspective of the contracting industry.
January 2010	Farmer 11 Transcribing/Analysis/Coding Interview returned to respondent	This interview was carried out in the Christmas break, outside of Canterbury to get a better regional representation.
January-September 2010	Continued analysis Write up of thesis	Completed end Sept 2010

3.4 Ethics

Both farmers and contractors were approached and interviewed in their professional capacities. None of the questions asked had any personal element. For this reason approval from the ethics committee was not sought. Regardless of this, the usual principles of good practice were carried out. The survey questionnaire included written details about the project, contact details, and contained a note explaining that the completion and return of the form would be deemed as consent for inclusion in this research project. In addition, the opportunity to address the participants immediately prior to administering the questionnaire enabled questions from participants to be answered.

Full information about the project was provided to the potential interviewees when they were first approached (See Appendix A). Prior to the face-to-face interview, the interviewees were asked to give written consent and informed of their rights to withdraw. All interviewees were sent their full transcriptions to check for accuracy, resulting in some changes and the removal of some sensitive data. They were also sent a copy of the draft results and given an opportunity to comment.

Contact details were kept separate from interview information and every effort was made to preserve anonymity. Hard data was stored securely in a locked filing cabinet within a room that is locked when not occupied. Electronic data was protected by passwords. The computer was kept within a locked room. Back-ups were stored on the Lincoln IT network.

3.5 Constraints and Limitations

The major constraint with this project was its magnitude. In effect, it could have provided material for three projects. One could have investigated how farmers make their labour decisions, but the rural contracting industry would have remained unexplored. A second project could have looked at the rural contracting industry alone, but the researcher's interest was primarily in the relationships between the two parties. This could not have been a stand-alone project as these relationships are explained by the circumstances of each group of actors. As a consequence, this project has a very wide breadth but not the desired depth.

Furthermore, even with its breadth, this study still did not cover all the rural contractors. There were those who were deliberately excluded, while others, such as stock agents and farm machinery service-men, were overlooked. In addition, by attending the Rural Contractors New Zealand conference and conducting the survey there, a greater emphasis has been placed

on those contractors in the cultivation, forage-making and spraying sectors, particularly at the expense of the transport sector. Transport operators were among the last contractors to be interviewed and only one farmer was interviewed after this. Most of the farmers (and the researcher) tended to overlook the importance of transport, given that every input and every output has to be transported to and from their farms.

The survey was not representative of the rural contracting industry at all. It was only representative of those contractors who both belonged to Rural Contractors New Zealand and attended their conference. Since they only have between 400-500 members, which is estimated at around 10 percent of possible membership, those completing the questionnaire represented less than two percent of the population of contractors offering the services listed above. There appears to be a large number of rural contractors who are part-time contractors, and none of this group was interviewed. Even the scanning contractor was unusual in his field in making most of his income from scanning.

Strauss and Corbin (1990, p. 95) point out one of the most important limitations with qualitative research:

Each of us brings to the analysis of data our biases, assumptions, patterns of thinking, knowledge gained from experience and reading. These can block us from seeing what is significant in the data or prevent us from moving from descriptive to theoretical levels of analysis.

These same biases and assumptions are also a problem in data collection. Flyvbjerg (2006, p. 237) considers that the case study approach has no greater bias toward the verification of the researcher's preconceived notions than other methods of inquiry. In fact, "experience indicates that the case study contains a greater bias toward falsification of preconceived notions than toward verification". The benefit of the grounded theory approach means that one's assumptions can be tested in the next interview, but it is important to continually question the data and to become totally familiar with it. As the number of interviews increased, the length of the interviews also increased to the extent that not all topics could be explored to the desired depth, due to time constraints.

Chapter 4

Results - Farmers

4.1 Introduction

The results of this study have been divided into three chapters. An overview of the results and their links to the research questions are shown in Figure 4-1. The farmers' perspective is discussed first, followed by the rural contractors' perspective of their respective businesses. Chapter 6 brings the two parties together to examine the interrelationships between them.

This chapter presents the results of the relationship between the rural contracting industry and South Island sheep and beef farmers from the farmers' perspectives. Farming systems are important in this study because they determine both the labour and machinery requirements of a farm. Farmers then need to make the decision of how to meet these requirements. They have to decide whether to employ permanent labour which needs to be utilised all year round or whether to buy in labour as required through using casual labour or contractors. They face the same decision with machinery. Purchasing machinery is a capital investment which needs to be justified by sufficient utilisation. The alternative is to hire the services of a contractor.

Section 4.2 gives an overview of the eleven farmers interviewed, their farms, and how they ended up on their farms. Section 4 then moves on to seek to answer the question, 'How do sheep and beef farmers decide on the particular combinations of labour they use?' It looks firstly at the eleven farmers' current labour use in Section 4.3. This is followed by the relationship between their farming style and its labour requirements. Section 4.4 moves on to examine their use of rural contractors for specific farm tasks in order to answer the question, 'Within the labour mix they choose, what role do rural contractors play?' Section 4.5 looks at how farmers go about choosing their contractors and the qualities and features they are looking for in specific rural contractors.

In this results section, the convention used for quoting directly from the interviews is to place short quotes within speech marks within the text. Longer quotes have been indented without speech marks.

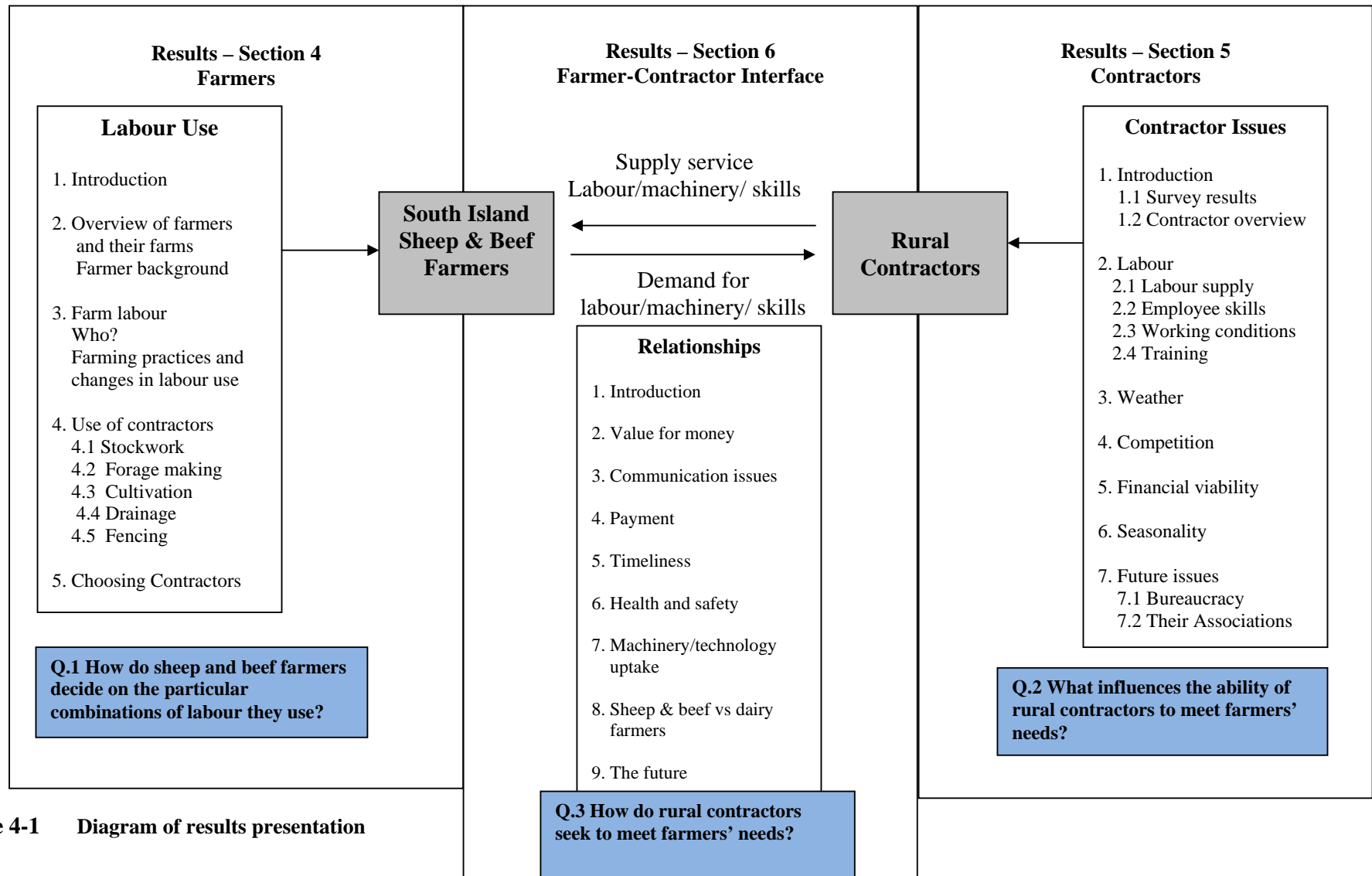


Figure 4-1 Diagram of results presentation

4.2 Overview of Farmers and their Farms

Although primarily selected on location and farm class, the eleven farmers¹⁰ interviewed displayed a range of farming styles as shown in Table 4-1. All sheep and beef farmers within New Zealand have unique enterprises, with the physical environment; with breed preferences; sheep to cattle ratios; wintering styles and other farm activities; as well as differing labour mixes; all contributing to individuality. Two farmers represent the more traditional sheep and beef farms. Three had diversified into significant income-generating, non-traditional, on-farm activities such as tourism, grape growing and bee-keeping, while two provided dairy support to nearby dairy farms as a form of diversification and two hand-reared dairy calves for beef. Only one farmer had no cattle. One farmer had no sheep and two farmers had deer. Seven farmers had some forestry.

The farms ranged in size from 220 hectares to 7,400 hectares with a median size of 710 hectares. Four farmers leased land in addition to their original farms. The number of stock units carried ranged from 1800 to 16,000 with a median of 5000 stock units.

The farmers interviewed ranged in age from 31 to 60 years old, with a median age of 48 years, and so covered the “three stages of the family cycle” as identified by Nalson (1968, as cited in Gasson & Errington, 1993, p. 32). One was single, two had preschool children, three had school aged children and the remaining five farmers had adult children. Of these, two had adult children who were involved in the farming operation and one had the possibility of a son becoming involved in the near future. While two farmers were close to sixty, neither mentioned retirement. Of the ten male farmers, one had an agricultural degree, four had a diploma relating to agriculture and five had no tertiary qualification. One farmer had a trade qualification. Of the three female farmers, one had an agricultural degree, one had a diploma in an agricultural field and the third had no tertiary qualification. One of the farmers was a farm manager with a large degree of autonomy. Another was both the farm manager and a shareholder in the company which owns the property.

¹⁰ The term ‘farmer’ can signify either a male or female farmer.

Table 4-1 Profiles of farmers and their farms

	¹¹	Age	Landform	Size	Interviews		Employment	Notes
					Breeding Stock	Stock units		
Farmer 1	M/F	51-60	Plains	520 ha Class 7	2800 Texel/ Coopworth ewes 178 beef cows Dairy support	5,500 10.5 su/ha	Family Lambing shepherd Casuals	
Farmer 2	M	51-60	High country/plains	5000 ha Class 2	14000 Merinos 140 beef cows Five Star Beef ¹²	14,000 2.8 su/ha	2 permanents Casual	
Farmer 3	M	51-60	Downlands	710 ha Class 6	4000 Romney cross ewes 30 beef cows	5,000 7 su/ha	1 permanent 1 part-time	Wife works off - farm
Farmer 4	M	31-40	Hill country/flats	2775 ha Class 2	6300 composite ewes 300 beef cows 50 hinds	16,000 5.7 su/ha	2 permanent Casuals (30%)	Minor on-farm diversification
Farmer 5	F	51-60	Hill country/flat	345 ha Class 6	160 beef cows	1800 5.2 su/ha	Family	Off-farm work for contractor
Farmer 6	M	51-60	Hill country	1000 ha Class 6	5000 Corriedale ewes	6,500 7.2 su/ha	1 permanent (very recent)	On- farm diversification
Farmer 7	F/M	41-50	Downlands	300 ha Class 6	1650 Coopworth ewes 57 Stud & com. cows 75 hand-reared beef	4000 13.3 su/ha	Family Casual	
Farmer 8	M	31-40	Hill country/flats	683 ha Class 2	900 Corriedales ewes 150 beef cows	3000 4.4 su/ha	Family 1 permanent	On-farm diversification
Farmer 9	M	31-40	High country	7400 ha Class 1	750 Perendales ewes 170 beef cows	3000 0.4 su/ha	Family Casuals (0.7)	On-farm diversification
Farmer 10	M	51-60	Hill country/flats	1840 ha Class 2	3700 Romdale ewes 225 beef cows	6500 3.5 su/ha	Family 1 permanent Casual	
Farmer 11	F	41-50	Downlands	220 ha Class 7	500 hinds 750 composite ewes 40 hand-reared beef Dairy support	3400 17.2 su/ha	Family Neighbours	Both have had some off-farm employment

¹¹ Indicates gender of those present at the interview.

¹² Five Star is the largest supplier of NZ chilled beef, finishing 18 month Angus steers for the Japanese market on a feedlot at Wakanui, Canterbury.

4.2.1 Where do farmers come from?

The 'family farm' is an institution which many believe is disappearing and yet it remains a significant feature of farm ownership on sheep and beef farms. "Family farming is still the most common form of farming in New Zealand, and the wish of these families to pass on land and skills to future generations is strong" (Carter, 2009). All eleven of those interviewed were born and raised on a farm. Eight of the farmers represent the traditional family farmer as they own, manage and physically work on a property which has been in the family for up to five generations. Three had had to share the original family farm with a brother or a parent while another two ended up back on the home farm following a father's farm accident in one case, and a parental marriage breakup in the other case. One of these initially helped the father, then managed one of his properties for him. When this was sold the current farmer went into partnership with the father on the remaining land, and was finally able to finance buying the farm from him. In one case, a brother now owns the family farm while the farmer interviewed was helped onto part of his current property through previous employers; "if it hadn't been for them we wouldn't have got a start in life really. They helped us into it."

Two of the farmers were not on the family farm of their childhood because these farms were too small to be viable. Despite this, both of these farmers had followed a farming career. One owned a farm for a short period but sold it, as: "It was at the time of the sharemarket crash and everything crashed, so we got out before we had to; well, we were paying 29 percent interest." Since then he has been managing farms and has been on the current farm for ten years. The other one was still relatively young. He and his wife had leased a farm and farmed it on their own account. He then became a part of a farm investment company and managed one of the farms the group purchased. Of the three young farmers in their thirties, two did not intend to go farming initially. They set off on other career paths but the land lured them back. One talked about how the farm and its environment were so embedded within him, along with the fact that it allowed he and his wife to work together and to provide an ideal place to raise children, that he couldn't resist its pull.

4.3 Farm Labour

Farmers have a range of choices when it comes to meeting their labour requirements. There is usually the option of using some family labour either on a regular basis or, on a casual basis for those tasks such as tailing, mustering, shearing and haymaking which require more than one or two people. Permanent labour, which can be full-time or part-time, has traditionally

been employed on many farms, and casual labour is increasingly an option. Finally, farmers can hire contractors to provide labour along with the other skills and resources they offer. This section considers the labour mixes the farmers used. The reasons behind these choices are related to the changes in farming styles over recent years.

4.3.1 Who does the work on the farm?

Family labour, both paid and unpaid, is still an important component of farm labour in the research sample, with both parents and children helping out. The stage of a farmer's family cycle partly determines what family labour is available. When there are young children in the family, as in two cases, the wives have fewer opportunities to be involved in the physical activities on the farm. One of the wives did, however, have an active role in the office and reception work relating to the tourist activity that took place on the farm. Older school-aged and university-aged children played an active role on the farms of Farmers 1, 5 and 11.

Farmer 1 had never had permanent labour and still relied on a son to help out over university holidays:

It's mainly the kids – holidays and weekends. And when our son is home from university we do a lot of work from mid-November to mid-February. A lot of lambs go away, all the hay is made and the crops all go in, so when there is extra family labour available we get a lot of work done with them.

A lambing shepherd, “who is regularly available every year” was employed for the lambing season and also helped out with extra chores. He worked for a local spraying and dipping contractor for the remainder of the year which fitted in well since early spring is a quiet time of the year for that business. A local retired farmer spread all the fertiliser and lime, and the father helped out with major stock work: ‘Yeah, we just borrow people when we need them’. Even when the son will no longer be available for holiday work, Farmer 1 did not want to employ anybody on a full-time basis: “There's too many complications for me with full-time labour. Just talking to my friends and neighbours who have full-time labour, they have a lot of trouble. There is a lot of stress and just employing casuals is pretty stress-free”. Farmer 11 had a teenage son who had become “very useful, like he drove pulling in the balage. Now he can drive he helps bring in the balage and helps fence. [His father] expects a lot of him really”. Three other farmers also had access to parental labour and, in one instance, the mother did the bookwork.

Six of those interviewed had permanent employees but in two instances these were actually family members. One of these was a young son just out of school who, at this stage, is

interested in eventually taking over the farm. In the other case, the farmer had developed the farm so that he could run 6000 stock units on his own with the use of casual labour for about three days a week. Recently one of his offspring had returned home following several years of working in another career, to see if a future life as a farmer was going to appeal. Despite this increase in labour he believed there would still be a need for the use of some occasional casual labour for jobs such as tailing, shearing, crutching and scanning. Farmer 2 also had a son who was interested in returning to the home farm. Currently with two full-time, permanent labour units plus some use of casual labour he felt that if the son returned, “We would just absorb him, we are too busy now”. Farmer 5 had recently given up a permanent employee in an effort to cut costs. While the father was available for tractor work and stock work, “as a result of giving up the employee, I am getting behind on the maintenance”.

Farmer 2 had gone from three permanent employees down to two in the past year. One employee is an older, single worker who was inherited with one of the farms he purchased. His other permanent man used to be a local owner-farmer while the main casual “is a local farmer on a smaller place with cross-bred sheep so his busy times are totally different to ours, so it suits us very well really”. Winter feeding out is a fairly onerous seven-days-a-week job on a farm of this size so the casual labour was used to “give us a day off every now and again, just to give everybody a break.” This worker was also available to help with the major stock work. Farmer 2 also had an equal share in a full-time permanent rabbitier, along with two other farmers.

Farmer 3 had a part-time worker who was a baling contractor and so was mainly available over the winter. He was used to carry out maintenance such as fencing and fixing machinery, and he also helped with stock work when required. Farmer 3 used school students as casual labour to help with the tailing. He considered his farm was a “good two man unit”, and talked about some of the problems he faced in employing a permanent worker:

Oh well, good men never stay long. They’re always sort of moving on. Labour is a bit of an issue. It’s not a big issue but it is, getting suitable labour, getting someone that has a bit of commonsense, I suppose.

He went on to talk about the benefits of employing people on a part-time basis:

They’re the best of the lot, retired farmers. We use farmers that are semi-retired because if you get a wet week they’re not too concerned if you provide them with work or not, but if you’ve got somebody full-time and they’re not very versatile in what they can do, you get a wet week and it can be pretty awkward trying to keep them going.

Farmer 6 talked about having some silviculture for previous permanent staff to do in situations like this, but admitted, “It didn’t eventuate, so any pruning I’ve done has been done by contractors. We found other things to do, there were always fences and other things to do”.

With 16,000 stock units on an irrigated property, Farmer 4 had no trouble keeping two permanent workers busy. These two workers had been on the farm for several years so provided a stable labour back-bone supplemented by a couple of casual workers. One of these was a local person who made his income by providing casual labour for a group of farmers, while the other one was a shearer who did casual work in his down-time. From his wider experiences, Farmer 4 believed that farm labour was “a big issue”.

Farmer 7 and Farmer 11 were husband and wife partnerships with the wives closely involved in the physical farm work. Farmer 7 talked about the work she did on the farm:

I don’t do any tractor work... I stick with doing my stock work. It’s handier for me. Tractor work, you know, good ploughing and things like that, take years to learn. And I have no desire to learn it. And the sheep yards keeps me closer to the house so you’re accessible to the kids... And my calving cows are right there (indicating a paddock close to the house). And shortly I’ll have my lambs just over the hedge there and those hay sheds down the drive...”

Orphan lambs were mothered on and calves were hand-reared specifically for succession and retirement funding. While a housekeeper was employed over the spring to help ease the work burden, it was still an exhausting time of year. In addition, Farmer 7 spent about half a day a week carrying out work on voluntary rural-based committees. Up until a year ago, the farm had a permanent employee plus a lambing shepherd. When lamb prices fell to around \$58 a head it was decided that the return on the wages paid was insufficient to justify the position. To compensate for the loss of the labour, “We’ve dropped our sheep numbers and lifted our cattle numbers because sheep are labour-intensive and cattle are not.” They employed a casual worker who was also a local hunting and fishing guide.

Farmer 7 talked about the problems of getting suitable labour. They had had the same lambing shepherd for 12 years but when he could no longer do the job they “have just taken whoever we can get along the way. We were so lucky to have 12 years with him. If we could get another one like him, we would.” She also talked about the availability of general farmhands:

Getting a general farmhand is getting harder and harder. You know you can get a lambing shepherd or you can get a guy who does tractor work or you can get a guy who does fencing or whatever but a good general farmhand now for a sheep and beef farm who comes with a

reasonable range in work experience, that job pool is getting small because they've all gone to dairying.

She went on to explain further:

Generation Y is not reliable and they think they are worth a lot of money and they need a lot of hand holding so we don't look to employ Gen. Y's at all. 'The world owes me, it's about me. I need my hand held all the way.' We don't want that kind of person.

She believed that money was a primary attraction for Generation Y. She felt that sheep and beef farmers were unable to pay the kind of money that dairying offers, which is related to the number of hours worked. The offer of a better lifestyle with more reasonable working hours was not a sufficient attraction.

Farmer 8 had a full-time employee and hosted a school Gateway student¹³ as well. His employee was just out of school and was being trained up but he's "not a rocket scientist, that's for sure. He's a farm labourer. We pay him accordingly". He also talked about the problem of being able to provide the boys with suitable jobs when he was unable to be around to supervise them. In the past he had looked for someone more suitable. "We were looking for a single guy with some dogs that could do it and there was just no one out there that suited the bill really. So we've just had to go with unskilled labour and it's like, unskilled labour, pretty much!"

He elaborated on the qualities the ideal person would have:

That's the problem here, like young fellas, it takes a long time to get good dogs and keep good dogs and stuff. It's a big problem for me. If I was going to employ someone completely useful to me I'd have to pay them good money because they'd have to be competent fencing, competent stockmen, competent tractor driver – all these things. It's a highly skilled job to be a good farmer which a lot of people don't sort of recognise and I can't justify that.

Ideally he would like an experienced person to take responsibility for the livestock side of the farm plus a vineyard manager so he would just become the "overseer". While he currently managed a complex workload, he was trying to set up farm systems that would allow him to attract a suitably skilled person in the future.

Farmer 9 was lucky enough to have found a good school student who worked on the farm part-time and was considering taking him on for a year: "The boy is competent and has a good work ethic. He has good stock sense and both workers show initiative." He had an older

¹³ A Gateway student is a Senior school student who has a regular farm placement and is working towards an AgITO qualification.

casual worker too, who was also an excellent worker: “For example, if the older guy is sent up to fix a broken wire in a fence he will also fix any other damaged bits of fence in the area rather than just doing the bit he was asked to do.” Farmer 9 recognised that not only do permanent workers cost wages, holiday and sickness pay and accommodation but there is also the cost of providing food and vet bills for a team of dogs:

In addition, work needs to be provided to keep the permanent worker busy when there isn't an immediate need for their labour so this means fencing materials, fuel costs etcetera can be higher. And supervision is still required. When you weigh up the true costs of using casual labour it is cheaper to pay the higher rate of \$25 per hour for a skilled casual worker and utilise them only when required.

The major stock events were done using casual labour. The previous year, three local farmers had grouped together to provide each other with labour for tailing. Mustering the cattle was a major operation but there were usually enough volunteers offering to help with this task. Farmer 9 proposed extending the concept of sharing labour with other farmers to enable a full-time beekeeper to be employed between them, allowing him to focus on livestock farming with some use of casual labour.

Farmer 10 had a long-term permanent employee who had all the skills the other farmers would covet. He was able to act as a stand-in manager when Farmer 10 was absent. Farmer 10 also had access, on a casual basis, to a local young farmer who was available to help out with tailing and weaning. He wouldn't like to have to replace his current employee as:

You see a problem with a lot of the young fellows; they're not interested in doing... They're either interested in stock or driving tractors. They're not interested in doing those other, what they call mundane, boring jobs. They'd rather sit on the rail in the sheep-yards and do that sort of work rather than go out and do fencing and it would be difficult to replace my fellow with somebody. Well, it would be bloody near impossible to get one person, nowadays, especially a younger fellow that can do all those sort of things.

Farmer 11 lived in an area where there were still a number of stable sheep and beef farms. With large numbers of deer, they did not need a permanent worker despite both husband and wife working off-farm to the extent of one to two days a week at times. They only needed two to three days of casual labour each year for tailing and crutching. In their area a small group of sheep and beef farmers had retained some of the former ways of combining labour; helping each other with haymaking in particular:

Well, that has a long history in our neighbourhood actually. Our whole farming career we've done that. The thing that has changed

probably is in the early days it always ended up with a big picnic in the paddock or a big meal at night. Now most people just go home at the end of the work and I still make lots of food and it doesn't get eaten! ... We don't have any outside assistance making hay. The boys drive the tractor and the girls stack the hay.

In this area it was traditional for most women to help with the stock work and yard work, and winter-feeding breaks, but not to do the tractor work. However Farmer 11 said that she and her husband were completely interchangeable to the extent that she could manage the farm work single-handedly.

In addition to the labour sharing, much of their cultivation machinery was purchased and shared within this group. They owned their own tractors and ploughs and some of the smaller soil cultivation implements but the larger implements such as hay balers, roto-crumblers and roto-harrowers were shared two or three ways.

Farm Labour Summary

One theme running through the interviews was a reluctance of the smaller farmers to employ permanent labour. They acknowledged the difficulty of finding suitably skilled and motivated workers, particularly within the younger working population. They wanted a wide range of farming skills from fencing to stock work to tractor work; as well as someone with the commonsense to work safely and use expensive machinery carefully. In addition, they recognised the hidden costs beyond mere wages in having permanent employees, such as accommodation costs, holiday and sick pay, the costs of supervision and providing work during the down times of the year. They valued the convenience of employing skilled casuals for specific jobs. These casuals could be other farmers with different farming styles, retired or semi-retired farmers, or people who also worked in the contracting industry. Even within this small sample, there had been a decrease in permanent employees over the last couple of years and the only instance of a farmer taking on a permanent employee was due to the employee being a family member.

Family labour, however, was still an important source of flexible labour, and included up to three generations. Given the trend towards off-farm work, it was somewhat surprising to find that at the time of the interviews, only two wives had independent jobs off the farms, although other wives had worked off-farm in the past. Three farmers had a small amount of irregular off-farm work. On-farm diversification was a more common source of income. The use of neighbours as labour had declined but it had not died out altogether. Hay making was still a

local affair in one area, and the sharing of labour for docking amongst a group of farmers was being developed in another area.

In some instances, the use of contractors was a substitute for on-farm labour by filling the gap for specific jobs. When discussing the roles of men and women on farms, Farmer 11 pointed out that, “It’s partly a labour thing, not necessarily whether you are female or male because you are only one labour unit. You will employ more contractors because you will need the physical person as much as the tools they bring”.

4.3.2 Current farming practices and changes in relation to labour requirements

Changes in technology, the economic environment, consumer demand, personal circumstances and preferences all influence the decisions farmers make with respect to their farming styles. This section gives a brief outline of the style of farming of each of the interviewees, and relates it to the labour requirements of such a farming style.

Farmer 1 had a relatively traditional sheep and beef breeding and finishing farm with a very small amount of forestry. He had recently included dairy grazing for his dairy farming brother, as a form of diversification. To do this, ewe numbers were dropped back “to make the work load easier”. They sowed about 40 hectares of swedes and turnips a year, and made about 250 bales of balage, 100 big round bales and, in some years, some small bales of hay as well. For the cultivation from pasture into the crops, “We do that on a pretty labour-free method. With our sandy soils we cultivate as little as possible; everything is sprayed off and direct drilled. We’ve got our own direct drill so that’s a low labour exercise”. A contractor did the spraying. His brother did the cultivation back into grass as he had both the machinery and the time in December to carry out this task. A contractor also made the hay and balage: “It’s a huge business. The days when we all tried to be geared up ourselves are long gone”.

Farmer 2 was farming what had originally been four separate properties. Each of these properties had been a two-man operation. Now all of them are farmed with three full-time people. He ran 14,000 merinos, keeping the lambs through till hoggets and had a Five Star feedlot. The 140 breeding cows had been introduced to improve the pasture:

Cows are pretty good for cleaning out gullies. Merinos don’t seem to do that. If cows clean them out then the sheep can actually get through, and walk through so that is probably most of the reason for cows rather than just fattening stuff.

The Five Star feedlot was introduced for financial reasons about ten years ago. He had not increased his carrying capacity over time but had focussed on improving wool quality and

wool weights. Part of the property had irrigation. 1500 bales of balage, 800 tonne of silage plus dry hay and lucerne hay were made the previous year and 80 hectares were sown in crops.

Farmer 2 attributed the reduction in labour requirements to several innovations. The use of a conveyor belt for administering drench capsules, which last much longer than conventional drenching, had speeded up this process:

We did a bit over 5000 hoggets in a day whereas it would have taken a long time going through the race doing it. And it's a lot easier on the sheep and you do tend to get the whole lot too.

Mustering was made quicker and easier by improved fencing:

We've got laneways in now so if we're working the sheep in the yards, in both sets of yards, we just turn them out into laneways and go and shut the gate behind them and let the next mob out sort of thing...

He believed that using big round bales and silage that can be fed out with only one person instead of the two required previously "has a lot to do with it". Having "26 foot wide" cultivators to replace the "10 foot wide" ones of five years ago allowed cultivation to be done more quickly.

Farmer 3 ran another more traditional sheep and beef breeding and finishing farm in a drought-prone area, with 4000 easy-care Romney cross ewes and 30 cows which had extra calves mothered onto them. He made about 300 bales of balage and grew barley for winter for both feeding in the drier years, and as part of his re-grassing programme. His farming style had not changed a great deal but would be less intensive than in the past as his focus had changed towards increasing production per stock unit. "Our stock units have declined and our performance per stock unit has gone up." The lambing percentage had risen from just over 100 percent to around 150 percent and lamb weights have gone from 11-12 kilograms to 17-20 kilograms. Balage making and crop related spraying were carried out by a contractor but all the cultivation, harvesting and cartage was done by the farmer and his staff.

Farmer 4 was on a less traditional sheep and beef breeding and finishing farm which incorporated both hill country and irrigated flat land as well as a forestry block. There was some minor diversification in the form of rental accommodation and the impending introduction of horse trekking, which was to be managed separately for labour reasons. There was a small, low-input breeding and finishing deer unit on the farm but with the current returns on deer this might soon be expanded to "give us a bit more diversity and balance in

the diversity”. Over the last ten years the sheep had been changed from Corriedales to a composite breed in an effort to increase meat production through raising the lambing percentage from around 100 percent to around 150 percent. However, there was a move to incorporate some Romney genetics in order to “try to maintain productivity by strengthening the constitution of the sheep herself, make her a tougher animal”. A ewe with greater longevity reduced the number of replacements required and those associated costs. While this may result in a slightly lower lambing percentage:

I think we still have room to lose performance and still be financially better off because for every one percent increase in lamb productivity comes at a cost, so at a certain point the lambing percentage increases at a diminishing return point. So it costs you to get that point of lambing percentage and you’re not actually making any more money, you’re actually better at a lower lambing percentage with a better producing sheep.

Irrigation on the farm took up 50-60 hours of labour a week and, with twice as many lambs, the stock work had also increased. More use was being made of casual labour and contractors were now used to make the 800 to 1000 tonnes of silage. About 40 hectares of summer brassicas were grown to feed the lambs. Unlike most farmers, Farmer 4 did his own spraying for timeliness reasons and got contractors in to do the cultivation and drilling.

In order to better utilise the irrigated land and the permanent labour, lambing was spread out over two months:

We just find it helps with the spread of the work load, and it also means that right through the year, instead of having 10,000 lambs that need to be tailed this week and 10,000 lambs to be weaned that week... so that we’re not all of a sudden having to vaccinate all the ewes, and all of a sudden having to set stock them and all of a sudden... so even though it spreads the workload it means we’re always busy.

Farmer 5 used to have sheep in conjunction with the stud cattle but had given them up: “it was easier to concentrate on the cattle”. In an area that can get fairly dry, there was no irrigation, so 250 to 450 bales of balage were made. Around 15 hectares of swedes and kale were grown, followed by barley, which was sold as stock food and the straw baled for cattle feed. In addition, around 20 hectares of grass seed was harvested. Spraying and balage making were carried out by contractors although the father did do some of the tractor work.

Farmer 6 was on a high country property where his wife ran a small nursery and garden tours business since off-farm employment was not an option due to the distance from possible employment opportunities. The garden tours then extended to farm tours which required

Farmer 6 to act as the host and tour guide. In addition, he had been managing 6,500 stock units on his own with just some casual labour until recently. He had achieved this by developing a “simple, easy-care sheep farming operation”. He had dropped 1,500 stock units, down from 8000 stock units two years ago, and had dispensed with cattle since putting in sufficient fences to enable good pasture management. He believed that having a “low performance, low cost structure” could be just as profitable as a high performance, high cost structure. “My aim is that it is the net that you worry about.” Ewes were pre-lamb shorn and not shepherded over lambing. Lambs were mostly sold as forward stores. Surplus feed was taken off for hay or silage, but grain would be purchased for stock feed if required, and up to 100 hectares of green feed were grown each year. With balage making, Farmer 6 did the mowing and first raking and also carted it to the wrapper. He did some of the cultivation himself but got a contractor in for any heavy ploughing, spraying and direct drilling. Despite having 1000 hectares, the back of the farm could be reached via a high quality lane within ten minutes. The biggest paddock was about 50 acres so “you don’t have to have a gang of people to clear it”. Winter feeding was the high labour input season with break feeding taking up a large amount of time: “if you do that all winter all by yourself it gets a bit... there’s no time for anything else”.

A third relatively traditional sheep and beef breeding and finishing farm of 4000 stock units was run by Farmer 7 and her husband. They had a prolific ewe flock with an average lambing percentage of between 160 and 164 percent. Their cows were split into a stud and a commercial herd. Apart from the stud bulls and replacement heifers, all calves were sent to the works by 18 months. Less traditional was the hand-raising of about 75 calves. Around 25 hectares of greenfeed was grown as part of pasture rotation and winter feed, and around 25 to 30 hectares went into conservation feed. Over the winter everything was fed behind a wire. For hay and balage making, Farmer 7 cut and did the first raking, and also did much of their spraying. A contractor came in to do the direct drilling.

Over the last 20 years there had been a programme to reduce all paddock sizes down to five or six hectares. Large areas of shelter trees had been established. The sheep to cattle stocking ratio had moved to 50:50, partly in response to dropping the permanent labour unit and the lambing shepherd.

Farmer 8 was running two completely separate businesses on his farm: a vineyard and a sheep and beef enterprise. His livestock included stud sheep and cattle, as well as a commercial sheep flock. The sheep to cattle ratio had been maintained around 50:50. With only a small area of irrigation in a highly drought prone area, surplus feed was only harvested in good

years. Greenfeed was grown on the irrigated land, followed by barley, while there was some dryland pasture renewal. Cultivation was kept to a minimum to conserve moisture. Farmer 8 did some of the tractor work himself but also used a contractor for the spraying and direct drilling. With a long thin farm only one paddock wide at one point, and a relatively unskilled farm worker, stock management was kept as simple as possible. Contract labour was used for much of the vineyard work.

Farmer 9 had three separate businesses on his 7,400 hectare high country farm: tourism, beekeeping, plus sheep and beef. Each contributed substantial proportions to the farm income and complicated labour requirements. The non-pastoral activities had been developed in recent years, along with a change from half-breds to Perendales. Perendales are easy-care compared to half-breds, and with good foraging ability about 60 percent of the lambs could be fattened. Twenty years ago there had been a full time stock person. A TB reactor necessitated a change in policy from selling weaner calves to keeping calves through to slaughter. This increased cattle numbers at a time when wool prices were falling. The resulting lower sheep to cattle ratio meant that the permanent labour could be dispensed with.

Farmer 10, with 1000 hectares of hill country plus 840 hectares of flat land, ran easy-care sheep and 225 breeding cows which were a mixture of Angus, Herefords and Charolais. All the lambs were finished; the top line of 30-40 weaner steer calves was sold and the remainder taken through to slaughter by 18 months. In the last ten years the change from Romneys to Romdales¹⁴ had been made because “The Romneys were too hard to muster off the hills, too big, too slow. We needed a bit of vigour in them... [Romdales] survive better on a limited amount of feed”. The lambing percentage had risen as a consequence. The ewe numbers had been dropped a little to provide greater flexibility:

Being a summer dry property, yeah, you sometimes run that last two hundred, two hundred and fifty ewes for nothing. You can spend all that time and effort putting feed into them and at the end of the day your bottom lines looks no better than if you dropped that.

In addition, the Herefords were being dropped out because of the extra work and management issues involved in running three separate mating herds.

Balage was made on the flat and greenfeed was grown as there was no irrigation. Ploughing and direct drilling were done by a contractor but planting, drilling and sowing were all done by the farmer. Winter spraying of lucerne was also contracted out, as well as balage making and the hay baling. The farmer mowed the lucerne and hay.

¹⁴ A Romney-Perendale cross

Farmer 11 was primarily a deer farmer with three different deer breeds: red deer, elk and fallow deer. There was a 750 ewe flock to utilise a recently purchased block of land plus some leased land, neither of which were deer-fenced. 40 calves had been hand reared for beef the previous year and dairy grazing had been undertaken to improve cash flow when venison prices were very low. While dairy grazing gave the lowest return last year, it was valued for its contribution to cash flow and diversity. Twenty years ago about half the stock units were sheep. They disappeared altogether before being reintroduced as Farmer 11 and her husband expanded the farm “to grow the business”. Farmer 11 suspected that the sheep may go again as she and her spouse age because “the sheep are actually the most physical work because you don’t manhandle deer the way you would sheep”.

Deer have a much lower labour requirement than sheep, apart from winter feeding and Tb testing. With the three breeds managed in separate mobs and fed balage and crops, winter was the busiest time of the year. Between 500 and 600 bales of balage were made for wintering the deer, along with a considerable number of “small wife-bales”. A contractor came in to bale and to wrap the balage, and the hay was made using neighbours’ labour and cartage equipment. A contractor sprayed before cultivation and an agricultural contractor ploughed and drilled, but Farmer 11 did all the cultivation work in between.

Farming practices summary

All of the farmers had made changes to their farming styles over the previous twenty years. Most farmers had introduced some form of diversification into their farming system, ranging from tourism activities to dairy support or hand rearing calves. There had been continued input into increasing the meat productivity of sheep flocks; wool production had become much less important. Sheep breeds had been changed in favour of breeds that were easier to manage in relation to labour inputs and the topography of the farm, or were more prolific, resulting in some quite dramatic increases in lambing percentages. Seven farmers had deliberately reduced sheep numbers. Three farmers recognised that the last few hundred sheep did not contribute significantly to their bottom line and appreciated the increased management flexibility with fewer numbers. Four farmers dropped sheep numbers and increased cattle numbers as a response to the greater labour requirements of sheep.

Ten of the farmers conserved forage in a variety of forms; making silage, balage, hay or straw or some combination of these products. All employed contractors to do all or some part of this activity. Since profitability on any farm relies on pasture growth, all farmers had some sort of pasture renewal programme which involved the use of contractors to varying degrees.

4.4 The Use of Contractors on Sheep and Beef Farms

This section examines the use of contractors on sheep and beef farms with a focus on why farmers decide whether or not they will employ a contractor. As a contractor and a farmer's son, Labour Specialist pondered what sheep and beef farming would be like if there were no rural contractors. Farmers would have to:

... drench all their lambs, make all their own hay, cut all their own barley, get their own truck to go and pick up their fertiliser, they'd never get anything done. The production would drop because they'd be too busy doing all these other jobs.

The farmers were asked to provide their contracting figures as part of the study. These are shown in Table 4-2. As they came from a range of sources such as their annual accounts, actual invoices, budgets and 'guesstimates', the final figures are not particularly comparable or accurate. Accountants do not use a standard system for allocating costs. In addition, some figures are not easy to extract. For example, livestock transport figures to the works are included within the killing sheets, and fertiliser spreading usually includes cartage and spreading costs as well as the actual fertiliser cost. Veterinary services are included along with any drug costs. The figures are, however, more likely to be understated rather than overstated as is indicated by the low percentage shown for transport. According to Road Transport Forum New Zealand calculations, sheep and beef farmers spend around \$522 million annually on road transport (Friedlander, 2008). This represents nearly 11 percent of a sheep and beef farmer's on-farm annual expenditure (compared to a figure of nine percent for dairy farmers). Agent commission has not been included in the figures and farmers often commented that they had overlooked certain costs during the interviews. They tended to offer a rounded figure for total operating costs. The only accurate way to determine true percentages would be to extract them from a farmer's invoices after the annual accounts had been completed; an unreasonable request for this study.

Table 4-2 Percentage of farm operating costs spent on contracting

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11
Livestock	16	12	7	3		21	4	7		5	2
Cultivation	1	2	3	3		8	.5	13		.5	5
Forage	3	12	7	2		5	4	0		1	8
Transport	4	2	1	4		0	1	0.5		2	8
Miscellaneous	1	16	3	5		4	3	13		4	2
Professional	3	.5	1	2		2	1	3		3	2
TOTAL	28	45	21	20	NA	38	14	38	NA	15	27

Despite these problems, the figures do give a broad indication of the areas where the farmers spend their contracting dollar, and the proportion of operating costs spent on contracting.

From these figures it is noticeable that differing farming styles result in differing proportions of expenditure in different areas, as farmers choose to use contractors to different extents. Livestock expenditure ranges from 2 percent to 21 percent. The lowest figure is from the deer farm, while the highest figure is from a farm with a very high number of sheep stock units and no permanent labour. Forage making ranges from minimal, because the accounts covered a drought year when there was no surplus feed to harvest, up to 12 percent where a large irrigated area was made into silage and balage. Overall, farmers in this study spent between 14 to 45 percent of their total operating costs on contracting services. On average this represented around \$100,000 per farmer for the 2008 financial year.

Farmer 1 preferred to focus his managerial skills on growing good livestock: “Whereas a farmer used to be able to do everything themselves, I wasn’t brought up that way. Dad always had contractors. I’ve no desire to operate a bulldozer or a digger”. His wife added, “He’s not mechanical at all”. Farmer 7 recognised that they employed contractors for both the skills they have and the equipment that they can provide: “We use contractors mostly because they bring expertise and the equipment we don’t have. They know best how to use the equipment because they have been doing it all the time and we don’t have the capital cost”. Farmer 8 had a similar viewpoint. Without a skilled workforce it was not feasible for him to do the job that a contractor does:

The problem is here, with the low skill base or no skilled employees basically, it’s out of the question to be using big machinery or complicated machinery that could risk injuring people. That is why I am streamlining the business and taking the risk out. Big jobs and big machinery are obviously far more efficient and that’s why we try and get specialists and that is something I’m pretty keen on, specialisation.

He related how even the contractor who came in to spray the gorse had become so skilled at that job by developing an efficient system with good equipment that he could do the job more efficiently than Farmer 8 could do it himself:

I’ve got a lot of other things more important to do and I don’t like it ... I’m better off getting someone who’s got their own business, he’s a spray contractor, he specialises in it. He’ll come and happily spray gorse for two months. He’s far more efficient than me because he’s got all the set-up. Let him come in and do it. He’s made a career decision to do that. Specialisation, isn’t it?

Machinery Supplier 1 saw the increasing use of contractors “as a good trend because your efficient fencer or contractor is going to do a better job and actually do it more economically. You know the farmer might think he’s paying a lot for it but to do it himself is actually more expensive”.

4.4.1 Stock work

All ten farmers with sheep scanned their ewes each year as a management tool for feeding ewes prior to lambing. Through scanning, farmers are able to feed those ewes identified as having multiple lambs in preference to those with singles, and can also dispose of dry ewes before winter, increasing the feed available for the remainder. The cost of scanning is related to whether the farmer wants only wet and dry ewes identified, or singles and multiple births, or twins and triplets separately.

All sheep farmers have to shear their sheep. None of the farmers did their own shearing. With wool prices contributing little to farm incomes farmers were concerned about the costs involved in shearing. “The cost of shearing is getting pretty scary and has been for quite a while, just considering how little we’re getting paid for wool these days, relative to the income” (Farmer 1). Some of the farmers provided labour (rousies) for the shearers whereas others relied on the shearer to do the whole job. Despite having relatively low sheep numbers, Farmer 11 still did not want to do the crutching; “We employ casuals because they crutch the sheep or do something we don’t want to do either,” explaining that crutching was not part of their “skill set”.

Dipping sheep is undertaken annually to kill lice and prevent flystrike. Farmer 2 used a small portable electric dip at lamb marking time:

... that’s for fly as well. We haven’t really had a lice problem for donkey’s years but it’s just... we make sure that we cover them for flies and if there is any lice about that’s enough to knock them anyway.

Contrary to this opinion, Farmer 6 believed that using an electro-dip themselves was a “waste of time” so had moved to using a contractor with a conveyor spraying system. Farmer 1 also used a local contractor who had “got an efficient method, haven’t they? They just go in one side of the shed and back out the other basically, through the truck and out”. He accepted dipping as an annual cost whereas Farmer 4 had started doing their own dipping rather than using a contractor, “because we sort of ran through the numbers and it was costing us about \$2000 per year other than the chemical so we bought a dip at \$6000; in three years we are in the clear”. The labour requirement was the same in both instances. Farmer 11 had not

considered setting up to do their dipping: “You employ a dipper because we haven’t got a dip. He brings his”.

Tailing, docking or lamb marking is an annual task that requires more labour than is often available on a normal day-to-day basis. The farmers had a range of methods for coping with this. Casuals, family and neighbours might all be called in to help. In some years Farmer 6 found some locals to help out and in other years he contracted a tailing gang. He still played an active role: “I find I can make very good use, economically, of a tailing gang if all they do is tail lambs but if you’ve got them mustering blocks and shifting yards all day the cost per lamb is up to over a dollar”. For this reason he rounded up the mobs and put them into a temporary yard that he built. They slowly fed into the contractor’s smaller yard allowing him to move on and set up in the next block while they completed the previous paddock.

4.4.2 Forage making

With very limited grass growth over most of the South Island during the winter months, winter carrying capacity determines the amount of income that a farm can generate. Most farmers conserve surplus grass grown over the spring and summer to feed to stock in the winter. Ten of the farmers interviewed conserved surplus feed. With the advent of large bales of hay and plastic wrapped balage in the 1980s, many farmers turned to contractors to do the baling and wrapping rather than invest in the large expensive machinery required, particularly as larger tractors were also needed to pull these balers. It did not make economic sense to tie up large amounts of finance in machinery which would have only limited seasonal use, unless they used this machine to do the neighbours’ balage as well, and so became a contractor. “There’s no point in having a big round baler when we only do 25 hectares a year. It’s not cost effective” (Farmer 7). Farmer 6 recognised both the capital aspect and the labour aspect of using a baling contractor: “Square balers? I can’t justify one, a big one. And when the contractor’s here, there’s enough to be done raking, carting. That keeps me occupied. You can’t do everything yourself”. Only Farmer 11 still made small bales using a shared baler along with help from the neighbours in the form of labour and vehicles and trailers to cart the hay.

While talking about his father’s farm, Labour Specialist provided a summary of some of the reasons farmers will use a contractor to make their balage or silage:

We just thought, well by the time you get your tractor, you’ve got the diesel, you pay the man to sit on the tractor, you buy the mower, you’ve got your wear and tear. All you do is you ring the contractor, fax him a map, “Mow this paddock, this one and this one. Balage goes

on this spot,” and there it is, job done. You don’t have to bloody put the mower on, you break a pto [power take-off] and half the paddock’s mown and it is drying out in the wind and the other part’s not and then the quality of your silage is all different.

4.4.3 Cultivation

Sheep and beef farmers are primarily there to make an income from growing good livestock. They are less likely to be people who are keen on machinery and enjoy sitting on tractors all day. Their cultivation is, in the main, for the purpose of renewing pasture. The renewal process usually provides winter or summer greenfeed in the process. While some of the farmers have the machinery to carry out cultivation, there are other reasons to employ a contractor: “For cultivation I’ve got most of the gear here myself but I’d rather use a contractor than pay someone to drive my gear at times, so I do what I can myself and then fill the gap with contractors” (Farmer 6). He acknowledged the benefits the contractor has in terms of having better machinery:

The contractor has better gear mainly and the job’s getting done while you’re doing something else. But as I said, if they utilise their gear they can keep modernising whereas I can’t justify that and if there’s high capital outlay involved and timing is not really essential... if the paddock’s ploughed today or in two day’s time it doesn’t matter but if it’s harvesting it can be slightly different.

Farmer 3 owned around \$150,000 worth of cultivation machinery on the grounds that “you’ve got to have that sort of gear. You want to do it when the weather’s right. You don’t want to rely on a contractor”. Farmer 1 recognised the repairs and maintenance required in owning your own machinery: “So there’s no point having all that machinery lying around waiting to be fixed before the next job.” Farmer 11 did have cultivation machinery shared between several farmers but even that had limitations:

We used to do all our own cultivation until the tractor got a bit elderly and we couldn’t afford to replace it so that’s when we started using ag contractors and although we now have a new tractor we still use them. We haven’t got a flash drill so we use them for all the drilling and also for the plough. We’ve only got a two furrow plough and the contractor has, I don’t know, a four or five.

Most of the farmers employed a spray contractor, mainly on the basis of the skills they have:

I suppose people specialise in stuff. Like you’ve got a specialised sprayer man and he does spraying, he knows spraying and he knows chemicals and knows wind and he knows all sorts of stuff, you know? And he can come in with his big 24 metre sprayer and he can have your whole thing sprayed within an hour (Labour Specialist).

Farmer 8 recognised that both the labour and skills are easier to hire:

I bought a spray boom for our vineyard sprayer so we could spray the paddocks and it cost me \$600 I think, and we sprayed it twice. The hassle of swapping it over, and I haven't really got the time because we haven't got any skilled staff here, it comes back to me really.

Farmer 1 did not particularly enjoy spraying and believed that the contractor's expertise would yield a better result:

I wouldn't even want to start doing all the spraying, exactly. If we do a few thistles ourselves, we're going well. With the spraying, I guess we are paying a lot of money but we get a good result, we are relying on their expertise to get a good result... and we couldn't possibly do that ourselves.

Farmer 11 also recognised that by using a spray contractor they are choosing not to expose themselves to the chemicals that are used and saved themselves the hassle of gaining the certificate now required in order to purchase spray chemicals: "So we are using both their qualifications and their knowledge too ... We can't know everything. He's an example where we rely on his knowledge because neither of us likes sprays".

On the other hand, Farmer 4 valued the ability to apply spray in a timely manner when he has his own equipment:

A spray rig is quite a cheap piece of equipment and it means we can do it when we want to. We can just hook it up and go when conditions are right. It gives us the security to get the job done as we are not reliant on anyone else.

Farmer 7 also did some of their own spraying using a relatively cheap tractor-mounted hydraulic unit. It could be done exactly when the weather was right and was good for small paddocks with uneven terrain. However, he did rely on a contractor, with his much bigger boom and narrow tyres, to spray the winter feed crops, "because it's the appropriate vehicle. It's not that you can't do it. It's the much better vehicle. No point in forking out for a nice spray truck".

Farmer 11 considered the financial cost of using contractors compared to doing the job themselves:

Financially instead of having to invest in a lot of expensive machines, we pay in the end but you only have to pay a bit every year. It would have to cost more than owning your own because they have to get a return on the machine plus they need to make a profit.

4.4.4 Drainage

Farmer 1 discussed the decision making around whether to do the annual drain cleaning himself or not:

Under the drainage one, several times I've looked at buying a digger, my brother and I, but we haven't got the time to operate it. So there's a time factor and that's the reason why we prefer to get someone else in to do that. ...We want someone who's free to do that for us every year and gets to know the place and is reliable and that's what we are looking for in that regard. We don't want people to put us off for a month; we want the same month every year.

4.4.5 Fencing

Most farmers did some of their own fencing but some used fencing contractors for certain jobs. "Well, if we've got a major fencing job to replace a fence or something like that we're probably better to get someone in to do it rather than us try and fit it into our day-to-day farming patterns" (Farmer 10).

We do the smaller and easier fencing and any repairs and maintenance. We have used a contractor when jobs have had to be done in a certain time, for example around 15 ha of plantation prior to lambing – we needed to protect the trees. Or we use them when we are short of time (Farmer 4).

Farmer 8 had used fencing contractors in the past but then purchased a post driver. He described fencing as a good "fill-in job" for employees.

4.4.6 Transport

Transport is one of the contracting sectors used by all farmers for a wide range of services. The services can broadly be divided into livestock transportation, and cartage of farm products such as stock feed and fertiliser. The farmers had little to say about this aspect of contracting, possibly because it is one area where they are unlikely to even consider doing the job themselves. Although there are still a few farmers who do have trucks capable of moving livestock, the time consuming nature of the job and the increasing bureaucratic requirements mean that this number is declining. Most of their comments related to the stock handling ability of the drivers and the timeliness of the service.

Contractor use summary

The farmers used contractors for a range of reasons. They valued the skills that sprayers, scanners and shearers were able to provide. OSH considerations were part of the decision-

making process in using spray contractors. All of the farmers who utilised the expensive machinery provided by the forage contractors appreciated not only the saving in capital costs, but also that they did not have to be concerned with machinery repairs and maintenance. Some recognised forage contractors as offering a labour component as well. Ag contractors offered a mix of machinery and labour. The value of some of the technology on offer, such as GPS, was not a factor in the use of rural contractors for these farmers. Fencing and tailing were two areas where the main reason for employing contractors was for the labour provided, rather than their skills. The specialisation by contractors often meant they were much more efficient at carrying out their tasks than the farmer, who would only be doing them occasionally.

4.5 Choosing Contractors

Since all the farmers interviewed had been on the same farm for several years, they had usually had their contractors for some time. Several used local friends and relatives who were contractors. It was difficult for some of them to pinpoint how they would go about choosing a new one, as demonstrated by Farmer 1's response to the question about choosing a new contractor: "Well, that varies. Some of them you get to know and you don't really want to change," but he realised that, "it's quality and reliability of service, expertise is what I am after mainly, and I hope they are not robbing us blind". Farmer 3 was also unsure, "Oh, I don't know. How'd we do it? There are plenty of contractors around. I suppose it wouldn't be hard. Somebody that's got a good reputation, I suppose".

They usually knew all the local contractors: "Most of them are just available locally" (Farmer 2). He pointed out that the pub used to be a good place for sharing local knowledge: "We've lost our pub up here now; that used to be a pretty good place to touch base. Probably word of mouth is the biggest thing". Farmer 5 would ask a local respected farmer and Farmer 6 would also ask other farmers in the area, adding, "I think you've got to be wary that you've got somebody who understands the climate here... There's an art to juggling the weather in this area and the contractor has to be aware of that". If it were a fencing contractor Farmer 6 was looking for he would want to see their work "before I gave him the job so their past performance and reputation means everything."

Farmer 4 had used the Yellow Pages to find a hedge-cutter but he would usually rely on word of mouth: "What I think is relevant is when I get a good recommendation from somebody else who has used that person. Who says they do a good job for good money, are there on the day.

They're tidy, they're efficient". He had a different approach with his professional contractors and was going to find a new accountant by interviewing potential candidates. Farmer 7 used a wider social network such as sports groups to find out, "who's good and who's not. So we use our social network or my [Federated Farmers'] network, so I use networking because the bush telegraph is the most honest of all". But this was not the only criterion: "I suppose if I was getting a new contractor I'd check out all his gear". Unlike most of the farmers interviewed, Farmer 7 was aware of which of their contractors had registration within their field, such as the fertiliser spreader and transporter. Farmer 10 would also talk to other people to find out who they used and contact the names that keep cropping up. He would then meet the contractor before using him.

As Farmer 11 went through the list of contractors they used, she realised that they had long-term relationships with them and almost all were locals and either friends or 'friends of friends'. They also believed that farmers should support the local community: "They're part of our local community too, so if we're going to give money to people we may as well give it to people in our community". In addition, because they live in the same community, "It would be really awkward socially too, like if the guy across the road is an ag guy and we got someone else in". This decision goes deeper than merely social reasons:

But the good thing about that is these are people in our social community generally. So they are not fly-by-nighters, they're here, they're part of our... There may actually be some more accountability in all that because they live and work with us.

Farmer 6 expressed this same idea, "Most of the ones I use are people who contribute to a community, you know them and you don't have the ratbags".

Having been dissatisfied with several contractors, Farmer 8 had put some thought into the sort of person who would make a good contractor:

Understand what they are doing and what they are trying to do and whether they can deliver a good service, that's basically what I'm doing... I try to learn a bit about them; where they are in their life. I try to associate with younger people that are doing what they are doing for the right reasons and that are going to give me good service for the next 20 years. I try to establish a relationship with them.

Sometimes there is no choice of contractor. Farmer 4 was not particularly happy with his roading contractor. He did not come when it was dry as he was busy working on dairy farms,

... but he's the only one that's got the particular machine that I want to be used because it's a small machine and it's four-wheel drive and it

goes on pretty hard tracks where the bigger machines can't get, so I sort of had to wait for him.

Farmer 9 looked for contractors who were efficient and turned up on time. They needed to have good reliable gear that didn't break down and they needed to keep him well-informed.

Ag Contractor was also a farmer and he had considered choosing a contractor from this perspective:

I lie in bed at night and think, gee I'm a farmer and I want to employ a contractor. Who am I going to use? And I think I would look for either a single man operator that's in charge of what he's doing and knows what he's in charge of. He's sitting on the machine himself and can qualify for what he does. Or I want the other extreme. I want a company that can come in and give me everything. One phone call, don't have to worry about it. Big enough that if they make a mistake they can back it up sort of situation.

Choosing a contractor summary

Most farmers chose their contractors based on networking within their local area. They were looking primarily for reliability, efficiency, good communication, a quality job and the ability to form a long-standing relationship. Two farmers believed that better accountability could be gained by using contractors from the local community. Farmers were not concerned whether the contractors had any form of qualification such as being a registered contractor since their selection was based on local reputation.

Chapter 5

Results – Rural Contractors

5.1 Introduction

This chapter initially presents a broad overview of part of the contracting industry through the results of the survey of the contractors attending the Rural Contractor New Zealand annual conference. Section 5.1.2 follows with a profile of those 11 contractors who were interviewed. The remainder of the chapter draws a picture of the rural contracting industry through the eyes of these rural contractors. It seeks to answer the question, “What influences the ability of contractors to meet farmers’ needs?” through examining the problems and issues the industry experiences. This will provide a foundation for understanding the relationship of the rural contracting industry with the farming sector.

The survey, undertaken with the members of the Rural Contractors New Zealand, identified the main industry-related problems they faced in managing their businesses, as shown in Figure 5-1.

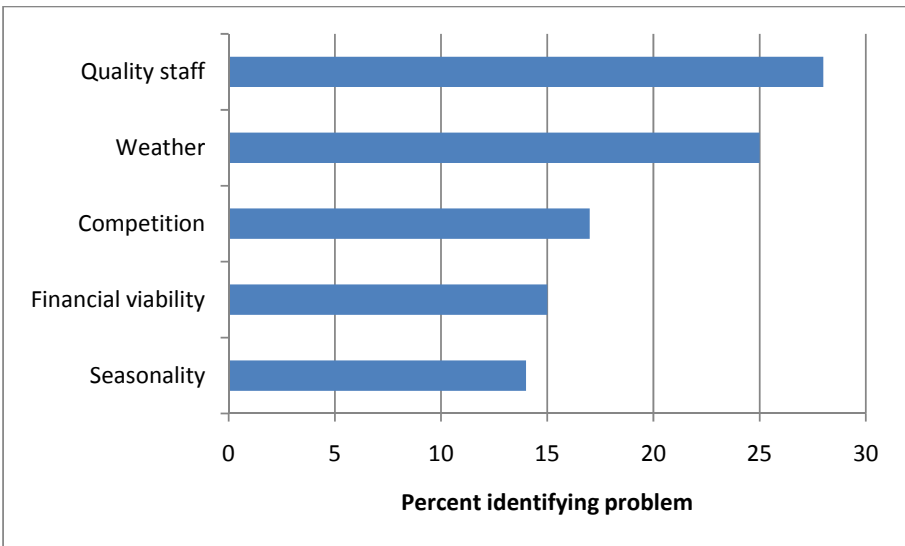


Figure 5-1 Main industry-related problems facing RCNZ rural contractors

Gaining suitably qualified staff was the most commonly identified problem followed by the weather. Weather was linked to both the amount of work available and the problem of providing a timely service to farmers for weather dependent activities such as forage making, cultivation and spraying. Competition from other contractors, mainly associated with price undercutting, was a major concern. Financial viability was closely linked to the other factors

identified as well as the financial management of the business and the skills of the manager or owner. Surprisingly, few people mentioned high capital cost as being a major problem. Finally, the major problem associated with seasonality was the difficulty of finding and training staff to work for around seven months of the year. Sections 5.2.to 5.6 will examine these problems from the perspective of the contractors interviewed. Section 5.7 will consider the contractors' views on some of the future problems facing their businesses.

5.1.1 Rural Contractors New Zealand survey results

The survey was undertaken at the Rural Contractors New Zealand (RCNZ) conference in Invercargill, which took place from the 19 to 22 July, 2009. The aim of the survey was to gain a broad overview of those attending the conference since the RCNZ caters for a wide range of contractors offering services such as land development, drainage, fencing, cultivation and planting, direct drilling, harvesting of crops, chemical application and sheep dipping. The survey included some open ended questions to provide qualitative data on the issues concerning contractors, so that these could be investigated through the interview process. There were 65 respondents.

Figure 5-2 shows the regional origin of those who filled in the questionnaire. Those from the North Island have been amalgamated as this study is focussing on South Island rural contractors. Southland is likely to be over-represented because of the location of the conference.

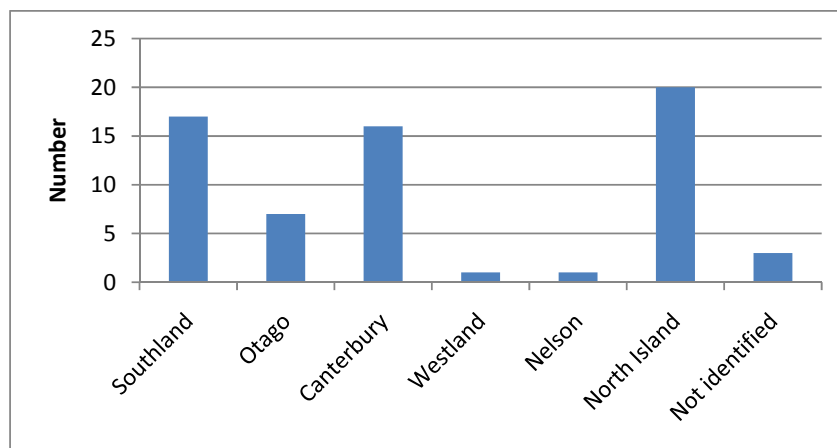


Figure 5-2 The location of the RCNZ contractors surveyed

The first question asked contractors about their background, but 43 percent did not respond to this question. Of those that did, 74 percent indicated that they came from a farming background, while the remainder either bought a contracting business or continued a family contracting business. One respondent was a sixth generation contractor. Nineteen percent acknowledged that a passion for machinery had contributed to their career choice. The 63 contractors who responded to the ‘number of years in contracting’ question had an average of 22 years of experience; ranging from one year to 58 years.

Figure 5-3 shows the ownership structures of those surveyed of which the majority were companies. This is not unexpected given the high levels of capital investment. Limited liability and the ability to split income through a company structure would benefit contractors.

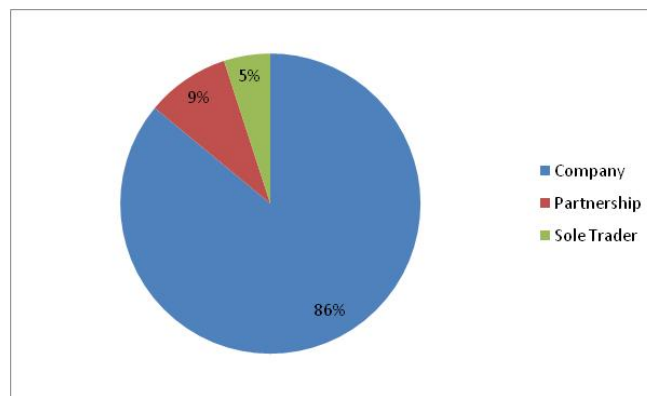


Figure 5-3 Ownership structures of RCNZ contractors surveyed

Over half (52 percent) the contractors owned land. This included lifestyle blocks and covered the spectrum of farming types. Despite this, 70 percent of the contractors gained 80 to 100 percent of their income from their contracting business (as shown in Figure 5-4), indicating that most of them were full-time contractors.

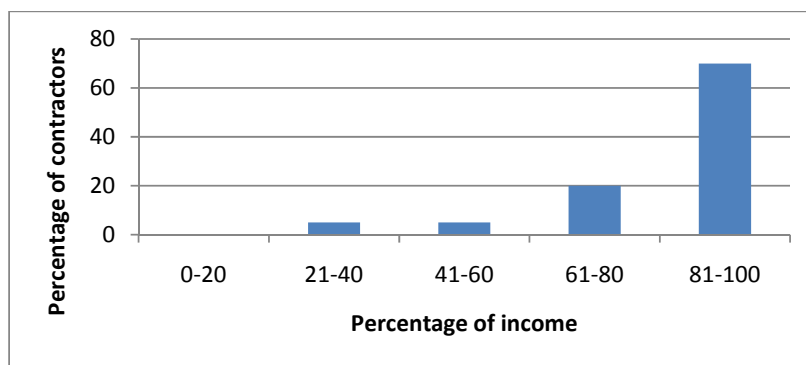


Figure 5-4 Percentage of total income RCNZ contractors earned from contracting

Contractors were asked to give an approximate breakdown of their income from the different sectors that they worked in. They were offered a choice of five rural options: dairy, sheep/beef, arable, small-holdings and other rural such as forestry, plus a non-rural option. The responses showed that contractors generally have a range of diversification across these six sectors. The implications of this will be further discussed in Section 5.2.5 ‘Coping with a seasonal industry’. Not one contractor surveyed was totally reliant on a single sector. However 17 percent relied on dairying for 90 percent or more of their income, so their businesses would be more vulnerable to dairy payout decreases. Figure 5-5 illustrates the relative importance of the sheep and beef sector compared to the dairy sector for those surveyed. Dairying provides substantially more business, but sheep and beef contributes significantly and also provides diversification.

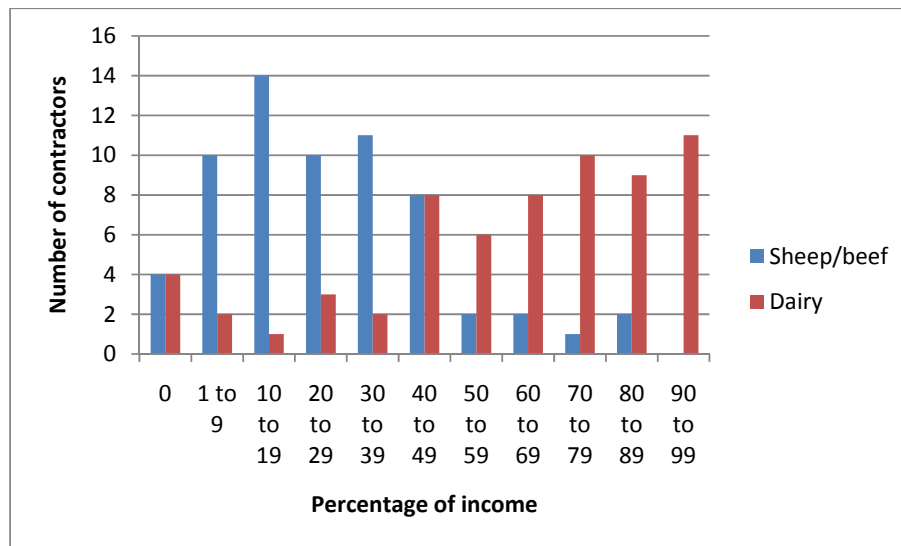


Figure 5-5 Percentage of total RCNZ contracting income from dairy and sheep/beef sectors

A further method of diversification came from the number of services offered. Seventeen percent of contractors were specialists, offering only one service such as cultivation, fencing or agrichemical application. Of the remainder, the average number of services offered was 4.5, offering a range from two up to nine different services.

Contractors were asked to check a box indicating their approximate investment in plant and machinery. Figure 5-6 shows the distribution of investment levels. However, of those checking the ‘More than \$1.5m’ box, fourteen indicated an actual figure ranging from \$2 million to \$4.5 million but it may be that the other 22 checking this box actually had substantially more investment than \$1.5 million. In compiling the questionnaire it was

difficult to determine what figures to use; a higher end figure with more options would have more accurately reflected levels of capital investment.

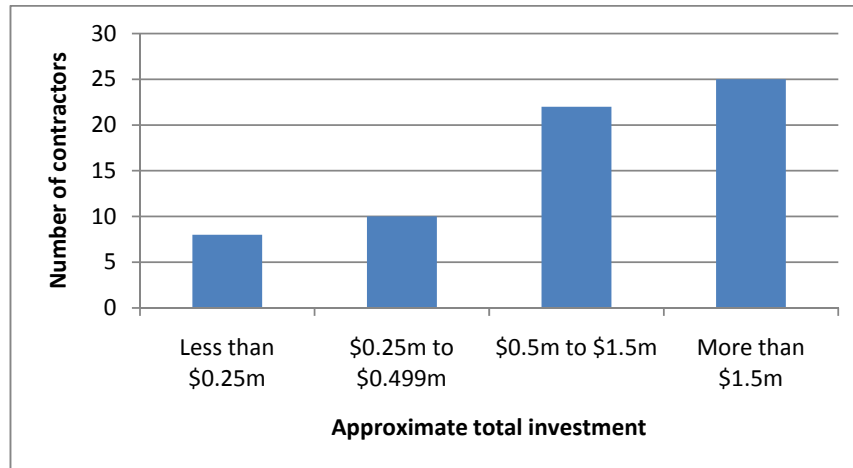


Figure 5-6 The distribution of RCNZ contractors' total investment levels

A similar question was asked regarding annual reinvestment but 28 percent of respondents did not answer this question. Based on the interviews, this is probably due to the fact that annual reinvestment can be a highly erratic figure depending on such variables as: how successful a season has been; the performance of existing machinery; the price of newer technology; and the price of the dollar. However, 43 percent indicated that they spent between \$25,000 and \$200,000 on annual reinvestment.

While not part of the questionnaire, the Rural Contractors New Zealand CEO asked if the contractors would include their total turnover. 46 contractors responded to this request, representing 71 percent of the respondents. The average turnover for these contractors was \$1,510,000 (median \$1,100,000) with a range of \$90,000 to \$5,000,000.

Employment levels were difficult to determine: seasonal staff might be called casual depending on the number of hours worked; casual staff use might occur year round and often varied considerably over the year, making it difficult to gain a clear picture. In addition, one of those interviewed claimed that the two brothers owning the business considered themselves to be employees of the business rather than the employers. Also, since many contracting businesses are family businesses, there may be several people working full time in the business who are not permanent employees. Table 5-1 presents the results obtained from the survey.

Table 5-1 RCNZ Contracting employees

	Permanent Labour	Seasonal Labour	Casual Labour	Overseas Labour
Percent of contractors NOT employing this category	20	30	32	66
Average no. of employees (all contractors)	3.4	4.2	2.2	1.1
Average no. of employees (based only on those employing in this category)	4.3	6.0	3.2	2.8
Range	1-15	1-33	1-12	1-10

The remainder of the questionnaire consisted of open-ended questions relating to the training and skills of both the contractors and their employees; the issues contractors face in their businesses; their relationships with farmers, and the wider issues facing the whole industry. The results from these open ended questions informed the interview process. These results are incorporated into the relevant results sections as that enables a comparison to be made between the views of the RCNZ members and the views of those contractors who were interviewed.

5.1.2 The contractors

Table 5-2 provides the profiles of those contractors who were interviewed. Individual contractors have not been linked to the areas that they came from in order to protect their identity. The contractors ranged in age from 29 to 72 years with a median age of 48 years and had been contracting from one year to over 50 years. Investment levels ranged from \$70,000 to over \$11,000,000. In four cases the interviews included both husband and wife, but within the text the quotes are attributed to the business rather than the individual.

Table 5-2 Profiles of the interviewed contractors

Contractor Overview					
	Age	Investment	Main Services	Employment	Comments
Forge Contractor 1	51-60	\$2m	Forage/Cultivation Transport	2 permanent Family	Member of RCNZ
Chemical Applicator	71-80	\$1.25m	Spraying Dipping	10 permanent Family	Member of RCNZ
Cultivation Contractor	51-60	\$2.6m	Cultivation Earth moving	6 permanent Family	Member of RCNZ
Forge Contractor 2	41-50	\$3m	Forage	Up to 15 seasonal	
Aerial Contractor	41-50	\$2.5m	Helicopter	5 permanent Family	Member of NZAAA
Fencing Contractor	61-70	\$250,000	Fencing	14 permanent Family	Member of RCNZ
Ag Contractor	31-40	\$4m	Forage/Cultivation Transport Fert. spreading	10 permanent Family	Member of RCNZ
Spraying and Fertilising Contractor	21-30	\$500,000	Ground spreading Spraying	4 permanent Family	Member of RCNZ
Large Transporter	31-40	\$11-12m	All types transport Spraying Ground spreading	Approx 50 Family	Member of NZRTA
Scanner	41-50	\$70,000	Pregnancy and Eye muscle Scanning	1 full-time 2 casual Family	Does some casual ag work off-season
Small Transporter	31-40	\$700,000	Stock/Bulk transport Freight Ground spreading	5 permanent Family	Member of NZRTA

All eleven contractors could be said to have a rural background. Nine of those interviewed were farmers' sons. Four of these began their contracting careers by working for the neighbours in addition to working on the farm. Two considered themselves to be third generation contractors and one had gone straight to work in his father's contracting business. Forge Contractor 2, always passionate about machinery, had purchased an existing business after a career in a completely different area. Scanner's father had been a contractor but Scanner had initially taken up a trade, then become a farm employee before investing in a pregnancy scanner. Seven owned rural property, ranging from lifestyle blocks up to high country stations.

5.2 Labour

All of those interviewed had employees. Finding the right person for a position is always important. How contractors go about finding employees is discussed in Section 5.2.1. The skills they are looking for are investigated in Section 5.2.2, while the working conditions offered by the contractors are examined in Section 5.2.3. Finally, how contractors go about training and up-skilling their employees is covered in Section 5.2.4.

5.2.1 Labour supply: Finding someone to employ

The survey results regarding the problems of getting and retaining suitably skilled labour were echoed by most of those interviewed. One of the machinery suppliers, who has a good overview of the cultivation, harvesting and forage harvesting sectors, went as far as to say, “Oh, I think it’s an extreme issue”. He believed that, “All the way through, we’ve got a job to attract more people into this industry and see it as a profession”. Many of the contractors had had potential workers sent to them from WINZ. Apart from some redundant bus drivers a few years ago, the remaining unemployed on offer were completely unsuitable, lacking the skills and experience required to operate expensive machinery. “We acquired some fairly interesting characters through WINZ; I could write a book about some of the antics that ensued with that lot” (Cultivation Contractor). Employment Specialist related a true story about a contractor’s experience with an unskilled person:

And he goes really good for the first week or so. Yeah, he’s pretty on time and things like that. Then one day he forgets to put the handbrake on the tractor. The tractor rolls down the hill and into the slurry lagoon, tears a \$60,000 liner, writes the tractor off...

“Labour has always been an issue,” said Forage Contractor 1, adding, “It’s hard because there’s not much labour around. There was a time when you could pick and choose.” In his area there used to be farmers’ sons available, particularly for casual work, but he believes that these sons have been advised now to “go way and get a skill, because there’s no money in farming”. Forage Contractor 1 needed three to four seasonal workers and liked to be able to call on some casuals at extra busy times. Forage Contractor 2 did not retain any permanent employees but needed up to 15 seasonal workers. He believed that staffing was an issue, “even in a recession with rising unemployment”. He had a mix of locals and workers from overseas. He was building up a network with other local contractors to share any potential workers surplus to their requirements.

Spraying and Fertilising Contractor had four permanent workers whom he aimed to retain over the quiet winter period in order to save on training costs. He also believed that his customers “love having the same guy back”. Whilst he was very happy with his current employees, prior to the recession it was “hopeless. We had very sub-standard people”. He thought that some of those attracted to the industry would “love to be driving through the main street of a town on their tractor and baler and lights and text messaging and radio going...” which was not a good image for his business.

Following a change in direction, Cultivation Contractor's business had gone from thirty workers to six, "counting us [the two brothers], as we treat ourselves as employees". With a relatively stable staff they had not faced recent problems in looking for staff but had done in the past: "it was always a struggle getting those additional staff..." While they were often approached by overseas workers:

We found them, quite often, unreliable. Sometimes they wouldn't show; you didn't see them ... their commitment to the job is not the same as what you would get from your neighbour and that was something we demanded, a high degree of commitment to doing the job right.

He thought that the "real problems we aren't dealing with that are emerging are labour shortages, coping with new technologies and just the lack of skills".

When asked about staffing issues, Ag Contractor responded, "Oh, any business that says that staff is not an issue probably hasn't got enough staff. There's always issues around staff..." He had a core nucleus of ten permanent staff and some farmers' sons that he could use for casual labour. "I'm a keen believer that if we've got good staff we need to be able to hang onto them year in and year out." They had actively sought overseas workers previously but it hadn't been highly successful. With a relatively prominent contracting business and a website designed as much to attract labour as to attract clients, "we have people knocking on the door". Ag Contractor believed that:

If a guy is good enough to ring or find us and drive up the drive, he's willing to work ... The guys that arrive here, backing themselves that they're good enough to get a job, they're the sort of staff that we're wanting.

Chemical Applicator, who had been in contracting for many years, had a very similar philosophy. A recent advertisement placed throughout the South Island failed to gain one reply. He also found that advertising failed to produce the quality of worker required. Instead, "Normally we've found that when we're starting to think of employing someone else, someone comes and knocks on the door ... Because they wanted the job, they want to work".

Fencing Contractor also expressed concerns about the quality of those applying for positions advertised, "Up until 6-9 months ago, if you advertised for staff, you never got an experienced person... You never got the mature person; you always got the young guys".

The aerial contracting industry is somewhat different as it is perceived to be a prestigious industry in which to work. Despite this, it is not without its labour problems too: "Certainly no trouble getting pilots, but trouble getting experienced pilots, getting experienced people is

different altogether ...” (Aerial Contractor). In an industry that has always had an oversupply of pilots, it was now “swamped with people who’ve got no aptitude”.

Both the Transport Contractors admitted it was difficult to get suitably qualified drivers. “It is hard to get drivers,” Small Transporter reported and went on to explain how a recent advertisement yielded 80 to 90 replies but of those only six or seven were suitably qualified. The fact that it was a rurally-based job deterred many applicants. As a relatively small company with only five permanent employees the labour issue was not quite as serious for him as for Large Transporter, for whom labour is “a huge issue. Because we are rural based, our major constraint to growth is labour. There is absolutely no doubt about that”. He talked about people applying for jobs who were totally unsuitable despite having a heavy traffic licence: “Most of them are unemployable as far as we are concerned and we will not be employing people with a half a million dollar unit on the road ...” Truck drivers had been extremely difficult to find but “the hardest people we find to attract are skilled in the sense of spraying operators and fertiliser truck operators. Just about virtually impossible”.

Due to the rural nature of these businesses, accommodation for seasonal workers can be a problem. Both the forage contractors and the transport operators felt responsible for finding accommodation. Forage Contractor 2 believed that accommodation was, “a huge issue and it is my problem.” If he was unable to offer accommodation he was likely to lose potential workers: “They’ll go the course of least resistance and go somewhere they can find accommodation”.

5.2.2 Skills required

The survey identified the main skills that the RCNZ contractors were looking for in their employees. This was an open question; the results may have been different had the respondents been offered a list of options. Figure 5-7 shows that experience (working with the appropriate machinery) is the foremost desirable quality. This was followed by appropriate qualifications and driving licences. The relevant qualifications depended on the sector. For example, those in the agrichemical sector wanted their employers to have qualifications such as Growsafe and Approved Handler. In the other sectors, contractors were referring to the relevant National Certificate, usually at Level 3. Commonsense was the most frequently cited generic skill. Other generic skills included: the ability to work unsupervised, to have a good attitude, to be honest and to have good communication skills

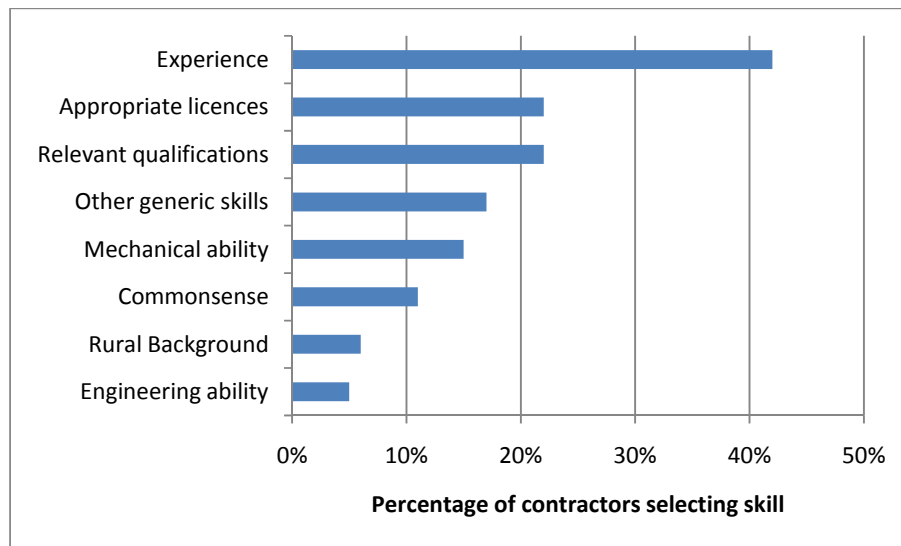


Figure 5-7 The desired employee skills RCNZ contractors are seeking

With such a range of different occupations it would be expected that the interviewed contractors would be looking for a wide range of skills in their new employees. Not one contractor said he would be looking for someone with a relevant qualification such as a National Certificate, unless it was a job that couldn't be done without that qualification. "But a truck, Class 5 licence, no ifs or buts, they need to have that. They need to know how to load, tie, manage the truck through gateways, manage the truck in general" (Forage Contractor 2). Machinery Supplier 2 summed up what most of the contractors wanted in their staff, regardless of the type of 'cab':

It's all about attitude. You can train people in skill, usually. You can train people in, you know, how to do their day-to-day job better and better but the key thing we're always looking for is someone who enjoys climbing into that tractor cab and gets a buzz out of it.

Most believed that on-the-job training allowed them to give their employees the exact skills they needed: "We always choose by attitude and we teach them the fencing skills" (Fencing Contractor). Chemical Applicator talked about his employees needing to have Growsafe, a chemical handling certificate and a dangerous goods endorsement on their licences, but these could be gained as part of their training.

In the forage harvesting sector, employers want their seasonal employees to be productive as soon as possible. Here experience is added to attitude as the most desirable qualities a new

employee can have. Employment Specialist explained what he felt forage contractors taking on seasonal workers were looking for:

The people that I deal with anyway, don't have time to have to put on someone who doesn't know what they are doing. They want someone that they can just put on there, give them directions and off they go ... They don't have time to be baby-sitting new inexperienced drivers.

Machinery Supplier 1 went a further step. In his opinion, "if a contractor has a particular type of forage harvester he'll want to employ somebody who's had experience driving at least a forage harvester, but preferably that type of forage harvester".

Forage Contractor 2 was very clear and explicit about the qualities he wanted:

The most important thing is knowledge of the equipment and being able to go out and be up to speed from day one ... Unless they've done 50 to 60,000 bales they are not up to speed. They just don't have the ability to problem solve and go out and be autonomous. Basically these guys need experience in balers, full stop. They can't be a tractor driver that has spent 20 years ploughing or whatever, they need to have experience with balers and as close to the types of balers I have the better.

A further requirement is that they need to have worked in a contracting environment so that they understand the urgency required to get jobs done quickly, particularly when the weather is likely to change. He summed up his requirements: "So that's experience with the equipment, previous experience in a contracting type environment and the ability to work autonomously ... It's a degree of professionalism". Employment Specialist summarised his requirements: "Basically, the most important thing is commonsense and just being able to think for themselves and being able to make decisions ... that's experience slash with commonsense, I suppose".

Ag Contractor did not believe that his workers should need to cope with the pressures of urgency. It was his job to:

... carry those pressures. All they've got to do is to do tasks that they've been given each day. ... It's still going to need to be done a certain way. It's going to need to be done on time. It's going to need to be done to a certain level.

Both transport operators had different requirements for new staff. For Small Transporter:

My initial thing, I guess I do tend to judge the book by its cover. To me, appearance is a big thing. And then personality ... But they've got to be user-friendly ... Someone that's not going to stress out, or if

they're confronted with a situation they're not going to nut off at the client.

In addition to this they must have had experience driving with a trailer because of the situations they would face on some farms and "if they haven't handled stock I just simply wouldn't employ them".

Large Transporter, on the other hand, required that his employees "absolutely have to believe in the local town and support it". This means such things as waving to people, sending children to the local schools and shopping locally. A rural background was also essential, so that drivers could distinguish between barley and grass, identify wet spots in paddocks and have good stockmanship skills. Aerial Contractor also required an agricultural background for a pilot: "They would intuitively know how to deal with farmers really".

With increasingly sophisticated machinery and vehicles being used in the transport and agricultural contracting sectors, it is possible that there is a mismatch between the type of people attracted to these sectors and the skills required to operate these machines. Cultivation Contractor had strong views on this aspect:

That was the next challenge I see, is coping with the technology that is coming in. You've got equipment now that the operator has to sit in. That equipment is monitoring, not only the quantity but the area of quantity, the quality and a whole lot of things that machine is monitoring. Very sophisticated, that machine. You need someone who has a high level of learning to be able to monitor that stuff to make sure it is functioning correctly, and no-one's coming out of the tertiary system with degrees on how to do that.

Labour Specialist agreed that this technology can cause problems:

The sort of modernisation of machinery is sort of good in some ways and it can make it difficult in other ways. It can sort of make the job harder because you've only got two people out of your ten man workforce that can drive those tractors because they are so complicated whereas if it was just a simple basic levers and things then anyone can drive it.

Large Transporter also agreed "Yes, there is a technology gap," but believed that the skills needed were relatively easy to pick up because the designers understood the problem: "They make them so they're robust, durable and easy to use. They're not difficult, believe me". Machinery Supplier 2 also recognised the gap but used a computer analogy. Anyone can operate a computer in a basic fashion but few people use their full capability. Likewise with a tractor:

If you want to be able to drive it and put a bit of an implement on the back of it, it's not too hard. But if you want to set it up with GPS and be able to take your hands off the wheel and let it go, you need to know what you are doing.

Spray and Fertilising Contractor admitted that driver skill was at least as important as the technology of the machine: "We're all aiming for the better the machine, the better the price but the guy on that machine is going to determine a lot, a heck of a lot. They've got a lot of control over your business, I reckon".

5.2.3 Working conditions: Attracting and retaining employees

Good wages and conditions contribute to a job's attractiveness to prospective employees (Stevens et al., 2007). Remuneration arrangements varied considerably between contractors. For Forage Contractor 1, all his seasonal workers were paid by the hour with no guarantee of hours. "They are all employed as casuals but under our rules once they do more than 20 hours a week they're not considered casuals anyway, but there is no guarantee of minimum or maximum hours."

Forage Contractor 2's employees generally had a specific position as a rake operator, a baler operator, a wrapper, a truck or a loader driver. In his first year of operation, all workers were paid the same hourly rate, "but I made a mistake in doing that and it won't be the same this year". In his second year there will be a rate difference based on knowledge and experience. There was no overtime but long hours, up to 15 hours a day, were worked during the balage and harvesting months.

Spraying is very weather dependent as it cannot be carried out when it is either windy or raining. Consequently, some of Chemical Applicator's workers would spray in the evening and into the night when necessary. They were paid on an hourly basis but were guaranteed nine hours a day, then moving on to time and a half:

As a general rule we worked five and a half days a week. Now there's a period, about two months just before Christmas there, that doesn't count. Sometimes we worked seven days a week for up to five weeks, I think. And their girlfriends and wives are informed, 'Don't complain that we're working'.

Spraying and Fertilising Contractor paid everybody the same (with no overtime), "because they're all driving the machinery. Somebody might be good at engineering in the winter but somebody might use their initiative a bit more". He initially started out using a bonus system but found that "it's not appreciated, to be honest". A 'bonus' now might involve taking the staff to a rugby match. He ensured that Sundays were generally not worked. "It's one rule I've

put in place. Guys have a day off. They've all got families, girlfriends and bits and pieces so we're five and a half days a week if we can handle it."

Ag Contractor also tried not to work on Sundays. While at times they do work very long hours, "it is all about managing stress and fatigue" so that the young employees do not "end up burnt out". He believed that workers needed to be catered for individually with respect to the hours that they worked:

I've got guys here who can't even manage 50 hours a week. You know, they are absolutely fatigued after 50 hours a week and if I tried to make them work those 70 hours they'd - pah, they'd have an accident.

Fencing Contractor paid their staff according to their skill level based on the unit standards they had gained towards their National Certificate in Fencing. In this sector hours of work were not such an issue but they do not get paid when it's wet. "They still do 45 hours a week. Yeah, out of 45 hours a week we've averaged 11 wet days [a year]."

Small Transporter's employees are paid a flat hourly rate "all the way." They are, however, guaranteed a minimum of 40 hours a week, "whether they have to work it or not". He believed that, "In my opinion, they're on a reasonable hourly rate. That's my opinion! They get paid a damned sight more than I do, hourly anyway".

In contrast, Large Transporter's employees "actually do eight hours a day and go to time and a half for the next three, and after that double time and weekends is double ... Nobody is under \$49,000 a year". They were a family oriented business, "We believe that if they want a day off for their family or a sports day, we don't even argue".

Aerial Contractor paid their employees a basic salary plus a productive bonus based on a percentage of the turnover of the helicopter. Much of their work is weather dependant but they do not expect their employees to be on site waiting for the weather to improve.

If everything is ready to go we try to maintain a fair bit of flexibility because we do a lot of call work. So if everything is ready to go, people can go away and enjoy their time off. We just ask them to let us know if they are going to be away anywhere.

Long hours may be worked during the more settled autumn weather. Every hour of productive flying involves around another hour of work which may get up to 14 to 15 hours in a day. "It can get to the stage where you get pretty buggered which is not a good thing from a safety point of view, so you've got to be careful to manage that a bit."

Machinery Supplier 1 did not think that the agricultural contracting industry was paying enough. “When I hear what these highly skilled operators are paid per hour it is ridiculous.” Machinery Supplier 2 believed that pay is not the most important way of attracting people into this industry:

So we’ve got to make, I still believe, the aspect of sitting in a cab, and that can be truck driving or flying a plane for that matter, you have to really love doing what you do. And I think we’ve got work to do to say this isn’t the dusty, messy, unsophisticated job that it used to be. This is a place where you can work in a great environment, get to see a lot of scenery, work with some really good people in terms of the farming community, live in great parts of the country and can earn enough money to bring up a family.

5.2.4 Training

This section looks at the training the contractors give their new employees. Labour Specialist pointed out that it seems that nowadays farming is so high paced that there is no time to spend training young people. In the past “they could spend time on teaching young people how to fix things and do all that sort of stuff, whereas now there doesn’t seem to be time for that and it’s all about production and getting money ...” In general, the employing contractor would watch the new employee at work and assess his skills prior to allocating him to a specific role within the business. There are problems in that training has to be on-the-job, working for a client. “Where do you find a field, if you’re not harvesting, to train them?” (Machinery Supplier 2). There are few options of gaining skills through practising off an actual job.

Forage Contractor 1 trained his staff personally, “I wanted to be there and nursemaid them, for want of a better expression, for the first day or two so I could assess whether they were good, bad or otherwise ...” His permanent workers already had some unit standards towards the National Certificate in Rural Contracting but whether they took this further was to be an individual choice.

Forage Contractor 2 was the “training person” for his first year in the business but found himself too busy managing the company to do a good job. Consequently new employees were sent out under the wing of an experienced person: “You go with such and such and learn the ropes. There was nothing written”. Each employee had a work employment contract with areas of responsibilities written into it.

Chemical Applicator stressed that “the training is over here, not before they get here”. Employees needed to gain their Growsafe qualification, a First Aid certificate and to learn to

use the computers and GPS in the trucks. He initially went out with them and then started them on the easier jobs:

They get their training on those things first and then they graduate from there to something like thistles and then they eventually graduate to Round-up and things like that ... We've still got land over here so we bring the trucks over and have a day out here sometimes just driving round and round, spraying on water.

Spraying and Fertilising Contractor had a similar training system but believed that a full understanding of the job was essential:

Training, the training is very intense. It takes us approximately three months to fully train someone. I guess the first thing is getting them to understand what they are doing and why they are doing it and the money involved. It's not our money, that's the big thing.

For this reason he preferred to retain his staff on a permanent basis. With chemicals, mistakes can be expensive or even disastrous; spreading fertiliser on hill country is also hazardous. He did not encourage his staff to gain unit standards: "I think it's important to use the word training and not qualifications because as soon as you tell someone you want them to get a qualification, they'll just shut down".

Ag Contractor started his new employees off on more mundane tasks, usually working in small groups, "so they'll be down the lower order," being supervised by more experienced workers.

Cultivation Contractor was passionate about the importance of training on the basis that "the newest, best machine cannot make a job; the best man on the worst machine will still make a good job". His business had always had training programmes, induction processes, staff meetings, and even a classroom approach "where we would teach groups, certain things that we wanted done and the way we wanted things done". When the business changed from forage harvesting to cultivation they out-sourced their training but decided that they wanted a recognisable standard so looked at the relevant formal qualification system. They joined the Rural Contractors New Zealand and through that "we found a pathway to getting the National Certificate of Rural Contracting underway. We put all our staff through that".

He was a strong advocate for on-the-job training: "My idea of training, I believe in workplace training. I believe for the employer to get the best out of his trainee is for the trainee to work in the employer's environment". An important reason for this is that many males learn better when they understand why they are doing things. "You have to show the boy how it applies to

something, you have to show the boy it's got a purpose, and once he sees that, it's no problem at all."

New employees are given some foundation training, a procedures manual, and then given a job under the eye of an experienced operator in the field: "So he's learning a lot about vehicle dynamics; he's learning a lot about handling and he's also being taught a lot".

Fencing Contractor also placed an emphasis on gaining formal qualifications: "We've got all our staff going through the National Certificate of Fencing. We've got five of our staff with their Level 3 certificate". New employees go through an induction process where "we make them go through all the theory parts of that certificate," so that they could identify types of wire, strainers and tools once out in the field. Once an employee felt proficient at a task he was assessed and gained a small pay increase if he passed. A new Level 5 qualification which assessed topics such as designing, pricing, and building cattle yards had recently come out, and two staff were preparing to gain that qualification. As fencing requires that two men must work together, on-the-job training is relatively straightforward: "The experienced guy will do some posts and the young fella will be watching and then he'll do a few, you know. Slowly he'll learn to use the driver, it might only be half an hour a day ..."

Small Transporter would initially ride with new employees to "make sure they are what we expect. That's pretty much all on-the-job training other than if they haven't got licences we'll help them get licences that are required".

Large Transporter, with a much larger staff, had an in-depth induction process which covered company history, house rules, quality systems, health and safety, a tour of premises and their safety handbook. Each employee had an individual training record. Their business was ISO9002 accredited so detailed training records were kept, including the individual's employment contract, medical history and health records, a record of licences held and their police record. They did have apprentice drivers gaining their trucking licences, but no-one working towards their National Certificates.

Machinery Supplier 2 believed that training introduces a level of professionalism and raises health and safety awareness. He also considered the benefits of having a qualification that measured a standard: "If I've got transferrable skills that I can take from operating this large machinery into something else or round the world."

Labour summary

Finding suitably skilled labour is a major problem for most contractors. While attitude is probably the number one criteria for many, those in the harvesting sectors needed workers who could be productive straight away. The only people who could do this were those who have had prior experience. For this reason, some of the contractors tried to retain staff over the winter, despite the seasonality of their sectors. Work conditions varied considerably from no overtime and no guarantee of work, to full overtime conditions. On-the-job training was the preferred method of up-skilling employees. The formality of this training tended to be related to the size of the firm; the larger the firm, the more formal the training. Some contractors were not at all interested in qualifications while others encouraged their employees to gain the relevant National Certificates.

5.3 “We'll Weather the Weather, Whatever the Weather.”

Weather came a close second in the most important problems facing contractors. As most contractors work outside, the weather has a profound influence on their day-to-day work. Ag Contractor pointed out that “We’re controlled by the weather”. Rain prevents cultivation, forage making and shearing while any spraying and flying activities can only take place under dry, calm conditions:

When you’re spraying you are very, very dependent on the weather. If it’s blowing you can’t work, if it’s going to rain within the next two or three hours you can’t work, so you are always in a hurry to get as much done as you can while the weather’s right (Chemical Applicator).

This can have important effects on their ability to offer a timely service to farmers. Work is usually scheduled several weeks ahead and while one farmer’s job might not be weather-affected, a back log of work held up due to previous poor weather may mean the contractor is not able to cut a farmer’s crop when it is at peak condition. Aerial Contractor explained their problem over May to October from a flying perspective:

Basically there is always spray work ahead of us ... We are not sitting around waiting for calls to come in so we can do it. It is waiting for the weather ... Timeliness would be our biggest problem. It’s really in the hands of the weather ...

Extended periods of poor weather impact on cash flow as well as timeliness:

Yes, weather does affect what we can do. Long term weather can put a dent in your cash flow, either way. A lot of fine weather can bring on a lot of work ... If we get a wet two to three weeks we don't make a lot of money – go home and start fixing [machinery]. Which spends money! (Cultivation Contractor.)

In addition, long term weather events such as droughts impact on contractor profitability. Forage Contractor 1 had had three years of losses due to droughts. His profit “comes from volume, plain and simple”.

For Fencing Contractor fencing has to stop in wet weather because it becomes a safety issue:

So therefore, because it's wet and muddy you could slip and there's a monkey, 900 pound, coming down on your head. So we've got to be careful ... But you see H tensile, high tensile wire, is also classed as a hazardous substance ... Because new wire has got a film of grease on it and it's very, very slippery. It's bad enough in dry weather but when it's wet it's shocking. It can slip out of your hand and fly and hit you in the face. It is dangerous stuff.

The weather over the season has an important impact on profitability for some contractors. If there is adequate rain to stimulate good grass growth farmers will either harvest the surplus feed which benefits the forage contractors or will buy extra livestock which benefits the trucking operators. As Farmer 10 commented:

I think that human nature dictates that if there's grass there, you've got to do something with it ... So if they don't make it into hay or balage they go and buy, pay too much for stock and push the price up for stock and then complain that they didn't make anything out of [reselling] them.

With the growth of the dairying industry most sheep and beef farmers have confidence that they will find a market for any surplus balage or hay. Small Transporter believed that the weather was more important for him than the exchange rate's impact on livestock prices in the short term:

We would be more reliant on the weather by far. In a dry season all the lambs are going to shift in a hell of a hurry. There'll be outside companies coming in taking them away as stores and that sort of thing and we'll miss out on some of that work, rather than the season where things stay lush and we'll get all the fat lambs to the works.

Spraying and Fertilising Contractor had a different opinion on what farmers are likely to do with surplus feed:

Our area, if there's no drought anywhere else, these guys aren't going to be able to move their stuff. And if they're growing it for themselves and they think we don't actually need it for ourselves, plus things are a

bit tight, we should sell it on. If they can't sell it on, they're definitely not going to make it, are they?

About 80 percent of Scanner's work takes place in covered yards which provides limited protection from inclement weather but it only affects his working conditions.

It's not an eight till five job and it's all weathers basically ... It's probably the timing of the year you do it. Like the pregnancy scanning, you are getting up ... it's the middle of the winter, it's bloody cold, it's just about always frosty or raining or snowing. You just know you've got to get up and go.

Weather summary

So weather had a profound effect on all the contractors interviewed in one way or another. It influenced timeliness and the consequent relationships with farmers, cash flows, seasonal profitability and the level of personal enjoyment gained from a job.

5.4 Competition

While some contractors enter the industry through buying an existing business, the most common method of entry is through starting small, either as a one person operator or through combining contracting with an existing farming operation. A common theme from all of those interviewed was the effect that competition had on their businesses. Competition was the third greatest problem facing contractors based on the survey results. Particularly troublesome were those competitors who came into the industry and undercut existing contracting prices. These people were labelled by names such as "fly-by-nighters" or "cowboys".

Fencing Contractor probably spoke for all the contractors:

I think nowadays the biggest hurdle in the industry is the cowboy attitude. You're never going to stop it. See, we have the same trouble; all contractors have the same trouble. We're on a smaller scale because the agricultural side has got a lot of money tied up, a massive amount of money tied up, and they have farmers' sons coming on to the farm with their own tractor and their own baler and do some cowboy work, taking it off the contractors. We're the same, but we don't have quite the same trouble because the farmers' sons don't have post drivers normally. But the cowboys that come in and borrow a post driver and tractor and cell phone and ute and go out contracting, they don't know anything about it but they'll still take work off us in the meantime. They might not be there in 12 month's time, but they'll still take work off us in the meantime on the way through.

Forage Contractor 1 talked about one of his employees who set up in opposition and “pinched” some of his existing clients: “It’s one of those annoying things that happens in life, but you can’t do anything about it”. Large Transporter also had an ex-employee set up in opposition to them:

That’s one of the things that happens. You can buy a \$50,000 truck and that’s what’s happened ... They go in opposition to us and cut the rate in half; depress the rates and then they go broke but before they go broke, two more competitors have popped up like him ...

These new entrants are often seen as coming in and undercutting existing contractors because they do not have to pay the same costs. In some instances they use old equipment so have lower capital costs.

It’s too easy to buy second hand contractors’ machinery for a start ... The large scale farmer will come and buy that because someone else has already lost the first margin on it and then they’ll buy it and they’ll want to do a bit to justify it and away they’ll go (Spraying and Fertilising Contractor).

Forage Contractor 1 believed that they do not even take into account the true costs of running such a business:

They look at it with rose tinted glasses. They look over the fence and they see the nice tractor and baler roaring around the paddock. “Gee, that looks like a good way to make a bit of money; I’ll have a go at that.” They don’t see the two, three, four, five hundred thousand dollars that’s involved to do it and the cost involved to operating and maintaining it and the effort that goes into it.

Forage Contractor 2 was also critical of their ability to provide a timely service. He has based the size of his business on “being able to cater to all my customers. But there’s other guys out there that go out and make huge promises and put some extra balers on the road that haven’t got the infrastructure in place to satisfy all customers ...” But such contractors do have their benefits. One of his competitors “is just incompetent, just hopeless but he’s the best point of reference I have. Someone wants me to lower my price I go, ‘There’s always such and such’”.

Scanner identified an oversupply of scanners for a falling sheep population as one of the problems facing his sector. He too considered that some new entrants to the industry, “fly-by-nighters,” failed to provide a quality service by trying to emulate the throughput rate of experienced pregnancy scanners, compromising the accuracy of their results.

Forage Contractor 2 pushed the fact that he was in his business for “the rest of my life,” unlike a farmer’s son “that’s trying to fill in for three to four years before he takes over the

family farm, trying to play contractors”. Ag Contractor recognised this same person: “The other stage is where the farmer’s son, using Dad’s gear and earning a bit on the side and annoying the other contractors too”. Such people were not seen as good businessmen and they may not back up their work. They were considered to cut corners, especially with respect to their health and safety. Fencing Contractor talked about the difference between their business and the lone operator:

We’ve got to be careful with OSH because it is classed as a hazardous machine therefore we have to have two staff on it all the time and this is where we get quite upset because a one-man band will go out there, break all the OSH rules and undercut us ... We had one undercut us by 35 percent last week.

The Aerial Contractor also believed that the “biggest problem facing our industry is dishonest contractors.” He went on to explain that “The only way to really get established is to do it cheaper than anyone else, and the only way to do it cheaper is to try and hide some of your costs”. This was done was by understating the hours of flying by up to fifty percent in order to reduce the costs of complying with the industry’s maintenance and safety requirements. While this was risky, these operators were relying on the safety margin built into the requirements: “Say a helicopter component has got a 2000 hour life for it; they are probably tested to three times their life before they fail”. As a result:

The biggest bugbear in the industry is what it is doing is forcing prices down. We make a profit but it is nowhere near what it should be for the money we’ve invested and the financial risk we take and the experience levels we’ve got.

He thought that their company was probably undercharging by about thirty percent. So the consequences of such price cutting affected all operators and were more serious than in the ground operating sectors.

Furthermore, the farmer who goes part-time contracting is “in it for the job, not the speed,” compared to the professional contractors who are “in it for the turnover and the best job possible for the minimum investment, I guess. I mean, it’s all about return, isn’t it?” (Spraying and Fertilising Contractor). Not only this but “the large scale farmer is going to make sure that his own work is done first before he goes out, whereas with us, it’s all about keeping everybody happy”.

In one area, Large Transporter noted that there were 52 fertiliser spreader trucks all competing for the local work so “competition’s fierce”. As a business man he knew his costs and was not prepared to drop them and make a loss in order to compete.

Fencing Contractor had carried out some Yellow Pages research and discovered 55 competitors listed for their area. Fencing Contractor believed that you shouldn't worry about competition.

What you've got to do is a top quality job, efficiently, therefore you should be OK. You should also work that you don't get every job that you price. If you get every job you price, you are too cheap. So that if you get 70% of the jobs that you are pricing ...

Employment Specialist also considered that farmer-contractors were not a real threat to a professional balage contractor: "A contractor would be geared for production. You know, they've got a big wide mower, they've got high capacity balers, big horsepower tractors". With older and less efficient equipment, the farmer-contractor is probably doing it "for a bit of fun" as well as a way to make a bit extra money but it is unlikely to be a huge earner for him.

Machinery Supplier 1 saw it as the reality for rural contracting: "Your farmer who has a little bit of a bent for machinery, he'll go out and become a contractor actually. That's how contractors get started". He saw that one of the effects of the recession was to increase the number of farmers going contracting:

But without really thinking about all the other costs, labour units and how they're going to run the gear, and what happens when it wears out and how much time it's going to take and how am I going to look after it and all these things, but the initial calculation makes it look attractive from the outside.

Thirty five percent of the RCNZ contractors surveyed failed to answer the question that asked what their businesses could offer their clients, indicating that they couldn't readily identify their competitive advantage. Some could; for example, those in baling considered that by offering a transport service as well as baling and wrapping, it made it easier for the farmers, who only had to contact one contractor rather than coordinate at least two contractors.

Reflecting back on his entry to the industry, Ag Contractor had identified a gap in the market through the lack of a quality service offered by the existing local contractor. He never intended being in opposition to him: "So we went off and did our thing and slowly the two sort of merged and we ended up sort of competing with each other". Forage Contractor 1, Fencing Contractor and Chemical Applicator all found a gap in existing services but eventually other people entered the industry and provided competition. From Farmer 7's perspective these new industry entrants had the effect of "pulling back" those contractors who were "stepping out".

Some contractors get on well with some of their competitors and actually work together. For example, Small Transporter worked with another local firm to make loads more viable, or to provide them with trucks for sale-day when a lot of stock had to be transported at once. Ag Contractor had called on his competitors to help out when a breakdown was going to interfere with the timeliness of service he liked to offer. Forage Contractor 2 talked about the local contractor he most admired and wished to emulate in some respects. He considered this contractor to be a role model:

He is a big player in the area and everyone likes him and gets on with him. He solves problems. If there's grief he'll mediate and make sure the problem is solved so everyone is happy. I like that. That's how I like to do business.

Forage Contractor 1 was intending to expand his business into the transport area but he was very aware of the effects that this could have on other operators:

We have, unfortunately, another rural transport company in the area who are exceedingly good and I don't want to, and I won't go out and compete against them, but there is a rumour that it has been sold and if that's the case, I don't care. It's open slather then.

Competition summary

Without exception, all the contractors interviewed considered that competitors affected their business. While some competitors bought an existing business, the main problem was with those who set up as a small business, often a farmer's son on a part-time basis. These people were seen to either have their business subsidised through a farming operation or to cut corners on health and safety. In addition, it was felt that they did not offer the farmers the best possible service. The overall effect was that they undercut existing prices forcing contracting prices to be kept artificially low and affecting the image of the contracting industry. As Ag Contractor pointed out, "It affects everybody really, at the end of the day, I guess. Trying to protect yourselves all the time, I suppose".

5.5 Financial Viability – “The Rich, Famous Contractor”

“I mean a lot of people say you'll never see a rich, famous contractor” (Spraying and Fertilising Contractor).

Financial viability was only the fourth major concern of the agricultural contractors. This is not surprising since those things above it: labour, weather and competition are highly important aspects all contributing to long term financial viability. This section will look at

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how rural contractors go about determining the price they charge for their services as a major influence on profitability. A variety of methods were used for determining the prices charged. The second part of financial viability covered in this section looks at the qualities of a successful contractor which must impact on a firm's profit. This will be examined from the contractors' point of view only.

5.5.1 Working out charge-out rates

Forage Contractor 1 did his pricing through using a formula: "I have a formula. It's an old formula. I think it works!" This formula came from the original Contractors' Federation. They suggested that contractors should charge "\$1 per \$1000 of capital invested. So if you've got a \$200,000 tractor you've got to charge a rate of \$200 an hour." This formula is applied to the tractor and any implements involved. In addition to this, Forage Contractor 1 now adds on a charge for wear on ground-engaging equipment: "The wear factor in our area is very, very high and we've now brought in user pays. It's so much an hour for the use of the machine and it's so much for all the tips we use". He told of using heavy simba discs with 28 inch blades worth \$260 each. In one week they wore three inches off the blades.

Forage Contractor 2 had a somewhat different approach: "Keep increasing [the price] until they say... (laughs). I say to my staff that I'll pay them well. I want to have a premium product. I don't discount it." When he purchased the business he did a lot of market research by phoning other contractors and posing as a potential client to find out their prices. He considered the prices that had previously been charged by the business and also went out to some of his customers and discussed pricing with them. As well, he had done all his costings in detail and regularly discussed how depreciation was impacting on his business with his accountant. As he said, "This vehicle [the business] is in place to provide us with a lifestyle ... we've got a little dream and this business is what we've done and risked a little bit to make that happen".

Cultivation Contractor used an equally thorough approach. He cited the example of a new machine they had recently purchased; a mulch tiller. They initially read up the literature available on it which gave its field efficiency. "In the process of selecting suitability of the tool we're also assessing the performance of it. When you're assessing the performance - that is part of pricing."

Once they got the machine they took it out into the field to see the speed it could be pulled at. So they looked at the performance, the original cost, its devaluation, the labour required and the consumables used and then usually charged it out at an hourly rate.

Spraying and Fertilising Contractor used a different formula: “Any machine must gross its value every year ... I don’t think it would work so well in high wearing high maintenance industries like ploughs and things. In terms of spraying and spreading it works pretty well”. He priced on a per hectare basis so that “it’s in our best interests to do that hectare as effectively as we can”.

In the aerial contracting sector, utilisation of the machinery is the key to profitability: “We’re probably undercharging by 30 percent but I suspect we are probably one of the few operators in the business that can actually make a stand-alone profit on their operations” (Aerial Contractor). The reason for this is that their helicopters are flying nearly 600 hours per year compared to an industry average of around 300-350 hours. Aerial Contractor explained their pricing system: “You work out the hourly rate that you need over your year, what your return is per hour and what your costs are per hour.” Jobs are usually priced on an hourly basis and then converted to a per hectare basis for charging out: “It’s all experience and a pig in a poke but you get it pretty accurate. You normally try to err a bit on the side of caution to cover your bum a bit”. He pointed out that they had to price in “your positioning time, your reconnaissance time and your productive time,” as well as covering administration. Their biggest single cost was helicopter maintenance, followed by wages and then fuel and insurance.

Large Transporter was another contractor who could produce highly detailed statistics for every part of his business. He knew the exact costs of running all the different types of trucks. On top of this cost they add a percentage to gain the desired return: “There’s a Waikato survey¹⁵ done by the university and they’ll tell you rural contractors in the South Island used to make about 8 percent, now it’s back to 4 percent”.

5.5.2 A “good” contractor

The survey asked contractors what skills or training were required for their particular business. Twenty percent did not respond to this question but the most common response (29 percent) identified experience as their main skill. Twenty nine percent had some form of qualification (excluding driving licences) such as a National Certificate, a Diploma in Agriculture but most often their Registered Chemical Handler qualification. Fifteen percent believed that a rural background was an important skill. Only three percent were Registered Contractors and two percent Qualified Contractors (See Section 5.3.2). The question asking what training they might like to undertake, if time was available, was not responded to by 54

¹⁵ Waikato University Benchmarking Survey, see <http://wms-soros.mngt.waikato.ac.nz/MRC/NZ+Business+Benchmarking/default.htm>

percent of respondents. Fifteen percent felt they needed better administration or personnel management skills and five percent wanted to become a Registered Rural Contractor.

With the hindsight of many years in business and a local reputation of being a very good contractor, Chemical Applicator believed that the best thing the industry could do would be to “offer a good service and do it right ... you’ve got to give a good service and the most important person at the start of that is the one that answers the phone. It really is”.

Cultivation Contractor agreed: “We consistently strive to deliver value for money. We have always concentrated on treating our return customers the best ...” He believed that because farmers are price-takers they tend to be defensive in their attitude towards business and they like to reduce risk, so are often not open to new ways of doing things and accepting suggestions from their contractor. “For me as a contractor, I tend to like to think if I’m going to come and work for a farmer I’m going to improve his lot in life; that’s going to improve my lot.” In his opinion, being able to offer farmers a wide range of cultivation options gave better value for money. “I guess it is getting the guy’s trust. That is being able to sit down with your client and talk about alternatives”.

Forge Contractor 2 had tertiary qualifications which he believed would help him to survive better than those contractors that do it to “drive a tractor”. In his opinion, his business was over-resourced in terms of equipment but that enabled him to offer a better service. He described himself as a “make-it-happen sort of person and I believe I have an intellect to follow a lead and make something happen”. In his primary role as a project manager,

... prioritising pretty much comes to the fore every day. Whether it’s about taking a risk and running that truck on a bald tyre because you really need it today and putting off that little maintenance until tomorrow, and then making sure it happens tomorrow so that it’s ready for the next day’s work.

After one season of tractor driving and managing the business, he had realised that to do a better job he needed to relinquish the driving and focus on planning operationally. This meant leaving the field management up to a suitably qualified employee. He believed that goal setting and keeping a close relationship with his accountant were important. “The pressure I put on myself to do a good job will always be greater than any of my customers could put on me. It’s a personal thing.”

Small Transporter had been driving a stock truck, “all day, every day,” and then purchased another fertiliser spreader. He realised that with the increasing amount of paperwork running the company “was just getting a bit too much really.” They had taken on another employee to

allow him more time “to chase sales and that sort of thing and hopefully get a bit more revenue income.”

Ag Contractor described his priorities for his business: “One, the client; two, the staff and then the machinery, sort of thing.” He reminisced about his earlier days in contracting when making money was the most important thing. They then decided to focus more on the quality of the jobs they were doing and discovered that they ended up making a lot more money.

It just happened overnight. Honestly, we were worried about making money in our younger days and as soon as we let that go over our heads and worried about the service and the job and everything else, it all came anyway.

Spraying and Fertilising Contractor had a similar approach. “I think just getting your name out there is a big thing. And it’s not by advertising. It’s by doing a good job and people passing it on... It’s bizarre. The busier you are, the more work you get”. He offered his formula for his business:

Do what you do well. Know what you are doing, what you are doing in terms of your operations because that’s a big thing, because all the other things lead on after that ...

Employment Specialist believed that “the best contractors are those who appreciate their staff and share an enthusiasm for their gear and who work with their clients to ensure that the job is done in the ‘right’ time”. Machinery Supplier 1 thought that it was very difficult for contractors to make money when the economy was in recession. It made it difficult to “sell their proposition to farmers,” as “it’s a hard job for them to make their businesses efficient as well”. Training better operators was one way to improve their businesses “because one bad operator or one little mistake by an operator not only costs their bill but sometimes it’s a health and safety issue and they can cause accidents”. He noted that a lot of contractors are not good at selling themselves: “And that’s where I see the most successful contractors, they have a mindset, they can put their sales cap on and visit a farmer-customer and sell them their services, and I think a lot of contractors don’t work like that.”

Machinery Supplier 2 supported those contractors who had chosen to take more of a managerial role. He saw too many contractors being “the main tractor driver or forage harvester driver in their business and then they’re trying to run a business and they get stressed and tired, and end up working in their business and not on their business”. He talked about the importance of contractors identifying their competitive advantage so that they can create a future for their business:

So you've got to find what makes me unique, what's going to have people come back and shop with me and the only way you make money in any industry is by being able to charge a premium over your competitors. So you've got to find those things that people will pay extra money for.

Being a "good operator with a proven track record and therefore people trust them," is not a sufficient basis for a successful contracting business.

Financial viability summary

Almost every contractor had an individual costing or pricing strategy. Some used a formula while others knew their costs very well. It was obvious that some contractors had more of an interest in pricing compared to those who preferred to be out operating machinery. Three contractors openly admitted to not being interested in "bookwork". By contrast, there was a more unified message on what makes a good contractor. While some were more client-focussed than others, both clients and staff were deemed to be more important than having the most modern machinery. Only a few mentioned marketing; reputation for doing a good job and offering value for money were seen as the best way to gain clients. This study did not attempt to examine the relationship between being a 'good' contractor and financial success.

5.6 Coping with a Seasonal Industry

The issues associated with being part of a seasonal industry were identified as the fifth main problem facing the agricultural contractors in the survey. As well as affecting cash flow, labour becomes a major problem. A contractor has the choice of finding a new workforce annually or retaining his current workforce over a season when there is insufficient work to keep them productive. The degree of seasonality varies according to which sector a contractor operates in. A pregnancy scanner has just over two months of employment. Those offering forage making, in particular, have a very condensed season over about five to six months of the year. Most of the contractors interviewed had made conscious efforts to reduce the effects of seasonality in some way. For example, Cultivation Contractor talked about his specific focus on dealing with the problem: "We've de-seasonalised our business to a large degree to avoid those fluctuations that cause a lot of grief within the businesses ... You can put time into staff, up-skill them so they can actually do more in that seasonal period ..." This had the effect of reducing the number of seasonal staff required.

Depending on location, rural contractors service a range of clients such as dairy farms, sheep and beef farms, arable farms, small holdings and a range of other land-based sectors as well as non-rural clients. Apart from Scanner, who was totally reliant on the sheep and beef sector, all the other contractors had varying mixes of clients. At one end of the scale Small Transporter relying on sheep and beef farmers for around 90 percent of his business and at the other end Large Transporter and Cultivation Contractor had only around ten percent of their customers in this sector. Most had a spread of dairy, sheep and beef, and arable farmers along with a small number of lifestyle block owners. The forestry sector contributed around a third of business for Aerial Contractor. Seven of the contractors had up to a 30 percent contribution from non-agricultural work. This spread of clients had the effect of reducing the impact of seasonal variations within a particular sector.

If there is seasonally bad weather it may not affect different sectors equally. For example, a drought would generally have more effect on the income of sheep and beef farmers than of dairy farmers, who usually have irrigation in drier areas; and little effect on forestry or non-agricultural work.

Secondly, having a range of clients from different sectors spreads the risk which results from the seasonal price volatility of the rural sector. Dairy, grain, meat and wool prices do not follow the same trends at the same time. High dairy payouts do not necessarily occur when there are high lamb prices, and there is no correlation between sheep-meat prices and wool prices. Ag Contractor offered a particularly wide range of services over a spread of farm types. He acknowledged that the drop in the dairy payout has an effect on the contracting industry:

It affects everybody. It affects us but we're not reliant on it. We've built our business around diversification ... we've diversified enough that we can handle, I hope, various downturns in different industries. Like I said, [our sheep and beef farmers] can go through some tough times and we won't do next to no work over there and the dairy industry will be strong or something else will be strong.

This level of diversification had the added benefit that his business was able to cope with a high level of demand by diverting machinery and labour from, for example, cultivation to balage-making at peak demand times. Ag Contractor explained the rationale behind a very new venture:

It's a bit of everything really. Trying to grow another wee niche, another part of the business. Always looking for staffing opportunities. I've got staff that have been here for long periods of time; that might be something that they can actually take on

themselves without, you know, without taking away our core business. Something they can do for themselves over the winter ...

Spraying and Fertilising Contractor had had to be creative in order to carry his valued staff over the winter. One way was to build some of their own spraying machinery:

So we're building up another truck one at the moment. And we are going to build it, including all our labour time and that, I'm picking we're going to build it for about a third of the cost. And the only reason we can make it work is because that then allows you to hold your staff through full time ...

In addition to his core business of spraying and fertiliser spreading he had a specialised sprayer for doing inter-row clover and had recently bought a hedge-cutter:

One of our drivers goes onto the hedge-cutter and that's them sorted for the winter. You never see them again... The hedge-cutter is labour justification, I guess, but it's a very feasible one because it uses the same tractor which our clover sprayer goes onto.

He saw the fact that the hedge-cutter would go back into "the same gate offering a service to the same customer" as beneficial to his business.

Due to his geographical region Forage Contractor 1 estimated that 80 percent of his income came from sheep and beef farmers. Although 70 percent of his income came from forage harvesting, he did do some fertiliser spreading and land development and had made a calculated decision to diversify into transport.

I don't particularly want to expand the agricultural side of it because I think we've plateaued. What we made a conscious decision last year to do was to diversify ... It just generated a totally different cash flow, that sort of trucking ...

Small Transporter's business was primarily based on stock transport in a sheep and beef farming area. He did some fertiliser spreading but, for the stock trucks, "we'll take the crates off these guys and get them onto hay and straw and that sort of thing as well." A truck dedicated to a regular freight service provided some diversification from the pastoral industry.

Chemical Applicator had combined two separate contracting activities into his business to spread the labour demand. He offered spraying over the spring, summer and autumn period, and then carried out sheep dipping during the winter. "But it spreads the workload because we spray all summer and then you go dipping in the winter time and that meant we could employ men right through the year and have money to pay them." But the decline in sheep farming had resulted in a drop from a high of 1.6 million sheep being dipped down to 750,000 in the 2008 season. He had also diversified into spraying on liquid fertilisers.

Pregnancy scanning is highly seasonal. For this reason most pregnancy scanners work in a local area and have other sources of income. Scanner had turned pregnancy scanning into a viable occupation by combining it with eye muscle scanning¹⁶ in two different geographical areas as well as doing some casual labouring. Prior to buying a second eye muscle scanning business he used to go to Australia to scan in his off-season.

Aerial Contractor noted that “fifteen years ago we were very reliant on the pastoral industry”. While this has changed they were still in a situation where “we do very well if fine wool does well and fine wool is not doing very well at the moment”. They had gradually diversified into other areas. Forestry now provided a substantial amount of their business as did a wide range of commercial activities. Such diversification was a trend of other operators in his sector.

Unlike the helicopter industry, fixed-wing businesses, “do have all their eggs in one basket. They are very reliant on fertiliser application”. Under-charging, resulting in under-investment, has created separate issues for fixed-wing operators compared to rotor operators.

Seasonality summary

Most rural contracting sectors have some element of seasonality which creates labour, resource utilisation and cash flow problems. Since most of the contractors service a range of pastoral and non-pastoral businesses, this provides some protection against the seasonal issues relating to climate and the economic environment. Where possible, most contractors had diversified within their businesses to increase the utilisation of their labour and machinery. However, Forage Contractor 2 had remained specialised and was totally reliant on a seasonal labour force.

5.7 Future Issues Facing the Industry

When asked about the future of the rural contracting industry, three major themes emerged from the RCNZ contractors as shown in Figure 5-8. The contractors saw the levels of bureaucratic requirements as an ever-increasing cost. This aspect also came through in many of the interviews so will be discussed in Section 5.3.1. The state of the economy was the second major concern. This is outside the framework of this study so will not be covered.

¹⁶ Ultrasound or eye-muscle scanning is an aid for assessing the breeding merit of animals within a flock for carcass composition.

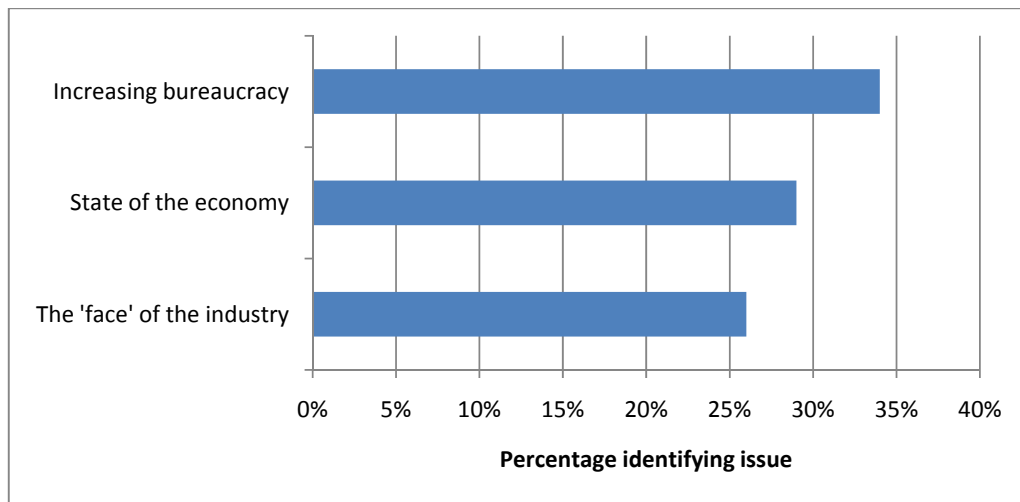


Figure 5-8 Main future issues facing RCNZ contractors

The third problem revolved around the industry’s profile or ‘face’ within New Zealand, covering such items as: “a lack of unity”; the need for an industry association; and the way the industry is perceived by the wider community and the potential labour force, which is related to the degree of professionalism of the industry. This will be examined in Section 5.3.2.

5.7.1 Bureaucracy: The red tape that binds contractors

The main bureaucratic problems revolved around the work time rule, licencing for both vehicles and staff, and the rules for taking agricultural machinery on public roads. The spraying sector has separate rules to comply with since they are carrying hazardous chemicals. There was some overlap between problems facing the transport and agricultural contracting sectors.

5.7.1.1 Work time rule

One issue that was both confusing and contentious was the work time rule for drivers. The following was taken from the New Zealand Transport Agency website and is their interpretation of the rule¹⁷:

In general, drivers must take a break of at least 30 minutes after 5 1/2 hours of work time, no matter what type of work takes place during that period.

In any period of work of up to 24 hours (known as a 'cumulative work day'), you can work a maximum of 13 hours and then you must take a

¹⁷NZ Transport Agency’s Factsheet 2 – *Driving hours and logbooks*. November 2007 retrieved from <http://www.transfund.govt.nz/factsheets/02.html>

break of at least 10 hours (as well as the standard half-hour breaks every 5 1/2 hours).

You can accumulate a total of 70 hours work time (known as a 'cumulative work period') before having to take a break of at least 24 hours.

This rule applied to all those driving vehicles which required Class 2, 3, 4 and 5 licences. In 2009 an amendment was made to the Act allowing tractors and other agricultural vehicles to be driven on a Class 1 (car) licence, providing they do not exceed 30 km/h on roads.

The main problem is that forage and crop harvesting both need trucks to support the agricultural implements used. So while the above rule does not apply to the person driving the forage harvester, it applies to the truck drivers carting the crop. "So at this stage here, the effect is that it is causing contractors to break the law" (Cultivation Contractor).

Forage Contractor 1 showed his confusion: "Something I'm going to have to look into is this new work time rule. I thought it had been wiped. There's no way I can work on 14 hours". He had a strong opinion about the effects of the rule:

It's been designed to hinder our industry ... the designers of those rules and regulations for the trucking industry, to justify their present existence, need to create a broader environment ... and hence we're getting what we're getting ... it is going to get worse.

He said that their business had a very good relationship with the local police but they always tried to maintain their vehicles in top condition and to display the required lights and hazard panels on their vehicles, although he was uncertain as to what the legal situation was with flashing lights: "We use flashing lights and that, in some quarters, is perceived to be illegal". He was adamant that they were needed, particularly at night and on dusty, gravel roads. Moreover, he was of the opinion that:

If we were going to comply with everything you'd never get out of the road until three o'clock in the afternoon. There's only one thing that we are knowingly breaking the law on, and that's the work time rule and we will continue to do so.

Ag Contractor also had strong opinions about the work time rule: "The work time rule is a real issue". In his case he believed that the inflexibility of this regulation worked against the agricultural contractors. In many situations he deemed it impractical to have to stop for half an hour after five and a half hours of work: "It's just totally inappropriate to put restrictions on the amount of rest breaks guys can have in our industry. I don't have an issue with the 70 hours a week." He gave the example of someone spraying who starts work early in the

morning and after five and a half hours has to stop for a break regardless of the fact that otherwise he could finish the job before the wind comes up. Those harvesting are often happy to eat on the job in order to get the harvesting completed as soon as possible. In his opinion, this rule, made for the trucking industry, did not fit the contracting industry.

One of the contractors who drove a truck often had to wait out his half hour rest break in a place just 20 minutes away from his base at the end of his working day, adding half an hour to his work day.

Chemicals Applicator used heavy trucks for the dipping part of his business. Most of the work is on farms: "With these big trucks there's no way we can be driving it more than the allowable hours because if they're driving the truck on the road, we're not making money." But in view of the fact that the law takes no account of the type of work being done they could easily go over the 13 hours.

Machinery Supplier 1 thought that the amendment, which means that tractor drivers do not need to keep logbooks as long as they drive at 30 km/h on public roads, was a reasonable compromise. He considered that with some people reputedly working 120 hour weeks, the industry really needed more labour: "People have been working too long hours and we need to somehow get more labour units in there so they don't have to work so long". Such long hours can cause accidents, however "the log book system as it is for trucks doesn't work in the harvesting season, but the labour shortage is a problem". In contrast to this view, Forage Contractor 2 considered that for many of his employees: "they are there to have their lights blazing at 10 o'clock at night. That is their sole existence for living. If I took that away from them, these guys would go and work for someone else".

Employment Specialist believed that if they brought in the log book system for agricultural drivers "it's almost going to triple the cost of agricultural contracting because you're going to need two extra labour units to cover what one person would do".

Fatigue is certainly an important issue in an industry where exceptionally long hours are worked. Forage Contractor 1 talked about sharing night-time experiences with a truck driving friend:

I said, 'I was working a paddock one night and I got a hell of a fright, there was a guy running beside me and I thought I was going to run him over and I was turning away from him and all of a sudden I realised it was the middle of the night and there would be nobody running beside me,' and [the truck driver] said, 'I was the same. I was

on the Pigroot¹⁸ one night taking some sheep to the freezing works and all of a sudden I was passing a train!

The New Zealand Transport Agency (2009, p. 52) points out that one of the major symptoms of fatigue is a reduced ability to judge your own level of tiredness. It lists “your eyes start to play tricks on you” as one of the warning signs for drivers.

5.7.1.2 Licencing and other legal issues

Driving Licences

Forage Contractor 2 said that the current licencing system was “all over the place”. Cultivation Contractor talked about anyone with a Class 1 licence being allowed to drive a tractor of up to 25 tonnes on the road. He strongly considered that as a 25 tonne tractor is “a bit of a handful,” there was a need for a special endorsement to drive it. In addition, “a tractor that doesn’t go faster than 30 km/h doesn’t require a warrant of fitness or any safety inspection.” He deemed that combining these two rules was “potentially dangerous.” A Class 2 licence holder can only operate a vehicle up to 18 tonnes. Cultivation Contractor would like to see this limit raised so that a younger person could get this licence and be able to drive a truck in the forage harvesting season where he would be closely supervised. At present, “he’s got to wait till he gets Class 4; by then he’s gone to university.”

Large Transporter talked about the need for businesses like his to have a Transport Service Licence. “Whether you’re an individual or a company, you must hold a transport service licence (TSL) if you carry goods on any road, whether or not for hire or reward, by means of an agricultural vehicle or combination of vehicles (eg tractor and trailer) whose gross laden weight (GLW) is 6000 kg or more (NZ Transport Agency, 2009, p. 49).” To gain the TSL, someone within the business has to sit for the licence: “There’s two tests, one’s Certificate of Knowledge and what’s the other one? But anyway, there’s two tests. We’re [two brothers] both in the mid 90s [percent] with studying for an hour. You just turn up and tick the boxes”. Bus and cartage operators both need the TSL but according to Large Transporter, “at the moment we all sit the same test, so it’s a joke.” He also mentioned the impending introduction of an operating rating system which will give operators a one to five star rating, depending on their certificate of fitness test results, crash prevention data and roadside inspection data. He was concerned this would increase the feeling “that big brother is looking over us”. There is a possibility that the use of Navman be made compulsory, which would allow the authorities to analyse trucking data to pick up the slightest transgressions. “You’re going to get sick of life, you know. What do you get up in the morning for?”

¹⁸ SH85 between Ranfurly and Palmerston, not near any railway lines

Vehicle licencing

“Unfortunately the laws for heavy machinery are based around truck laws and a truck is not allowed to be more than five metres wide and it does 90 kilometres per hour,” (Machinery Supplier 1). Contracting machinery is often wider than this and as heavy but does not have as many axles so is technically overweight on axle-loading. Unlike trucks they have big flotation tyres and travel at slow speeds: “They’re not going to damage the road any more than a truck is”. The New Zealand Transport Agency has recently put out an Agricultural Vehicle Guide to help contractors meet legal requirements, but Machinery Supplier 1 believed that “we need to get a rule or set of rules that apply to these large agricultural self-propelled vehicles like forage harvesters and mowers”. He thought that the “biggest risk in my view is of other traffic driving into these machines because they don’t see them, although they are very well lit”.

Machinery Supplier 2 agreed that there were some axle-loading issues and added that “we have to work very carefully about the use of trailers and using pilot vehicles and various things”. Since many of the imported machinery and tractors come from Europe where the roading issues are very similar to those in New Zealand, he believed that “we could learn a lot from [Europe].”

Chemical Applicator had designed a “30 foot dipping shower” which was towed behind a truck and weighed about five to six tonnes. Since it did not fit any of the tick boxes within the regulations, there was considerable debate as to what it should be registered for: “Hang on, you can’t register that, there’s no such thing.” Land Transport considered it to be an agricultural implement but that classification limited the speed to 30 km/h which was both impractical and uneconomic. Fifteen years later there has still been no definitive resolution to its classification: “We’re still working on this. We’ve kept a record of everything!”

Cultivation Contractor talked about an anomaly with forage harvesters. Most agricultural vehicles are registered as EB (NZ Transport Agency, 2009, pp. 7-8) which means that although they have to be registered, they are exempt from road-user charges. Forage and combine harvesters are not on this list so must be registered G which means that a time licence for road-user charges is required:

Now a forage harvester or combine harvester is not on that list, that require a time licence so then technically they require a hub meter. The problem is no one manufactures a hub meter to fit a harvester wheel; it is too darn big. Ha!

He also pointed out that if a hub meter could be fitted it would likely to be knocked off because of the work these machines do. A second problem he saw was that a tractor with an

EB licence would have to change to a G licence if the farmer or contractor started carting hay or silage rather than pulling an implement: “You must change your registration for what you are doing”. He saw the solution as a special registration category, “so that tractors may carry certain things for a certain distance under EB registration or have certain conditions or pay a road tax to do that”.

Transport operators have additional regulations to deal with: “Certificate of Fitness is getting tougher and tougher, Certificate of Fitness is. There will come a day that the farmer owning a truck is going to die [out]” (Large Transporter). With out-stations being taken to the rural areas and carrying out stringent brake testing, “they’re making it hard so the rural operator is being penalized as far as I am concerned, and the contractors, like baling contractors will be the same. They all have a little truck that does bits and pieces.”

Small Transporter was concerned about the problems of being overweight so had a weighbridge at his base:

We’re always in here and made sure we’re all legal. I’m not saying that we go out there to cheat the system at all; we can’t afford to be cheating the system. You get caught and you’re going to get hung for it.

The aerial contracting industry faced stricter regulations but “it is the passenger carrying work that has the limits ... We have daily limitations, two day limitations, and if any of those are exceeded you can still carry on doing your agricultural work”. He believed that this may change in the future. In this sector, the regulations themselves do not cause problems, but competitors breaking them, do.

Road-User Charges

Road-user charges are the taxes that heavy vehicles pay to compensate for the damage they do to the roads. In New Zealand road-user charges are based on the “fourth-power” rule¹⁹. This was derived from endurance tests carried out in the 1950s by the American Association of State Highway Officials. It says that if you double the load on a wheel, you increase the road damage by a factor of 24. Large Transporter said that “it was designed for a road maintenance schedule, not for tax purposes”. As a result, he believed that “we’re the only country in the world with road-user charges bar none. Everybody else pays through diesel tax”. He said that New Zealand operators pay almost double that of their Australian counterparts, making road transport much more expensive for New Zealand farmers. Small Transporter accepted that

¹⁹ See <http://www.abc.net.au/science/k2/trek/4wd/Overcor1.htm>

road-user charges were simply a fact of life to be incorporated into his charge-out rate. Large Transporter also identified a related problem whereby Governments have given local councils “xyz amounts of money which they’ve reinvested it in parks and skateboard ramps and footpaths and cycle ways but not much of it has been invested in roading”.

He believed that this would be a disadvantage to rural operators when the new 53 tonne axle-loading system came in, as many rural roads would be unsuitable for such heavy vehicles. In addition, when local councils come to upgrade their roads, “I can see local councils are probably going to try and collect some of this money through rates and farmers are going to be easy targets”. While details of the 53 tonne axle-loading system had not been finalised, Large Transporter believed that farmers would probably be disadvantaged by a system that was designed to suit the long distance trucking industry:

Out here in the wop-wops, these roads probably aren’t going to get that good a rating. That’s the first problem. The second problem is, we don’t know what weight we’ve got on till we get to the destination. That’s the second problem. The 53 tonne then means, say we cart 53 tonne down the road, what do we bring back? ... The road-user charges will have a huge bearing on sheep and beef farmers unless it is managed the right way by Central Government.

Chemical regulations

Chemical Applicator talked about the requirement for tracing all the chemicals handled. With his recent retirement, “one of the things I don’t really miss is the paper work and it’s going to get worse. And the tracing of all the chemicals. We’ve got it all on the computer over there, every paddock we spray and what went on”. He admitted that they probably broke the law by carrying too much spray at times and they did not meet the requirement to have a list of all the chemicals being carried on the door of the vehicle: “If you do that at every job and every time you fill up over the day, and you fill up a dozen times and it takes five minutes each time, there’s an hour gone”. Cultivation Contractor thought that if there was an accident it was likely that the list might not be legible anyway: “To me it would be far more sensible if the containers had clear labels on them ... and ideally those labels include what to do in case someone like you or me comes along to that situation.”

Regulation summary

Ever growing numbers of regulations were an increasing problem for contractors as they struggled to keep up with the compliance requirements, both with the amount of paperwork and the rules which impacted on their daily work. The work time rule affected all those who

used vehicles requiring Licences 2, 3, 4 and 5. While implemented to help prevent fatigue in long distance truck drivers, it hampers the efficiency of agricultural harvesting operators who need to work long hours at critical times. Vehicle licencing is complex and confusing for both operators and implementers. With the move towards traceability and the imminent changes facing the trucking industry, contractors believed these legislative requirements would continue to impinge on their work and affect the service they can offer farmers.

5.7.2 Rural contractors and their associations

The researcher's introduction to rural contracting was initially through the Rural Contractors New Zealand's annual conference. At this conference, people who usually work in relative isolation, come together to learn and share with people working in the same field. In an industry which is highly competitive there may be little open sharing at a local level. The literature had suggested that those people working as contractors found the absence of collegial networks a disadvantage in this form of employment (Kunda et al., 2002; Peel & Boxall, 2005). This section looks at the role associations play for contractors, along with a range of issues identified in the survey such as the industry's profile within the country, and professionalism.

The Association that covers the widest range of contracting sectors in the rural contracting industry is Rural Contractors New Zealand. It represents the interests of contractors in activities such land development, drainage, fencing, cultivation and planting, harvesting, highway vegetation control and maintenance; parks, reserves and landscaping, chemical application, sheep dipping and direct drilling²⁰. Seven out of the eight contractors for whom this Association was relevant, were members, but they held differing views on their Association's role and usefulness.

Spraying and Fertilising Contractor appreciated the ability RCNZ had to lobby for contractors: "I think what the contracting federation are doing; it's a good idea ... I guess it's basically a contractor's version of Fed Farmers so they've got a bit of clout there in case things really need to be pushed ..."

Forage Contractor 1 valued the opportunity the conference gave to people like him:

It's just interesting to talking to people and sometimes you have to read between the lines but I think a lot of people have exactly the same issues that we've got ... You think we're the only ones in overdraft, we're the only ones who can't make money.

²⁰ <http://www.ruralcontractors.org.nz/>

In addition, he also recognised its potential to represent the industry and to lobby for it:

Nothing will change unless you make it change and we individuals, and the federation is really the workhorse for it; they've got to get in there and start biting ankles, because if you don't they are really going to walk all over you.

While Rural Contractors New Zealand does not think that they have even ten percent of potential members, Cultivation Contractor observed that “probably the best party in power to do the most about [increasing membership] is the Government, by sending out ridiculous legislation”. Contractors often used association newsletters to keep up with both changes in both legislation and technology.

The profile of the industry within New Zealand was seen as contributing to the several problems such as their relationship with farmers: “People don't take contractors serious in their business as such and contractors don't see themselves as serious either... We've got a lot of investment here” (Ag Contractor). When talking about the problem of irresponsible workers causing machinery damage, Spraying and Fertilising Contractor suggested this stemmed from the industry profile too: “Unfortunately they're the sort of people that we've had because the industry has been frowned upon as a last resort for people that can't find employment”. As a result, he believed that the profile “needs to be lifted in the public eye” and it was Rural Contractors New Zealand's job to do this: “Their priority to me is that they've got to enhance the profile of the industry”.

Machinery Supplier 2 also had a strong opinion about its role in this area:

I would have thought the Contractors' Association's got a great role that it could play in it, but it needs to start early and it's a long term project, and that's the hard part for anybody getting started on all this. It's not put an ad in the newspaper or go on TV and say, 'Driving farm machinery is a great thing.' It's starting in the schools, it's working through the universities, it's a 10 year plus plan that needs to get started and everyone who complains about it and does nothing about it, is as guilty as the rest.

Forage Contractor 2 echoed some of those in the survey concerning the lack of unity in the industry:

If contractors would take a leaf out of the dairy farmers' book and actually work as a united front instead of competing against each other we could improve the energy within the business as opposed to stealing it from each other. That would be fantastic.

Rural Contractors New Zealand offers two 'labels' for contractors to promote themselves to their clients. One is called "Qualified Contractor" and can be used where a senior member of the business holds an NZQA Level 3 National Certificate in a field relevant to the services they offer their clients. This is checked annually. The second one is "Registered Contractor" which is awarded to firms that have been independently audited on a three yearly cycle on their statutory and regulatory responsibilities. According to Rural Contractors New Zealand²¹, "This process is undertaken to reduce the risk to the client and to minimise the client's exposure to liability in employment, health and safety and other areas".

The contractors interviewed had varying opinions about the value of the Registered Contractor accreditation. Forage Contractor 1 thought it was valuable as "we need to probably up-skill a wee bit in that aspect of things, particularly regarding us as registered contractors". Cultivation Contractor saw it as the way of the future: "I see this as the pathway for Rural Contractors in terms of growth and I talk about a sustainable growth here". He explained why the system would benefit farmers: "These are registered contractors, these are like master builders; pick these guys because they've shown they can jump through the hoops".

On the other hand, Forage Contractor 2 was sceptical about its value:

The cons would be that I don't think the farmers actually place any value on it; I've never heard them discuss it or ask about it ... I think it is more of a self-actualising thing. If I did do it, it would be more to justify my own desire to be part of an association, to be recognised, and I guess to go along with the first point, would I be able to charge another dollar if I was registered?... If you went out and told a farmer that you were registered they would say, 'Prove it, prove it in your day to day business; don't prove it by having a sticker on your cab'.

In his opinion, professionalism came from the individual and could not be offered by an organisation such as Rural Contractors New Zealand:

I think that a contractor should be out there to set their own levels of professionalism and standards. That's what owning your own business is all about. If you catered to the customer and give them what they want and do it in a professional manner, you will succeed. And if not, you fall by the wayside.

Forage Contractor 1 thought that, "At this point in time, your average farmer wouldn't know the difference between registered – he wouldn't even know what registered meant." Maybe Farmer 10 was such a farmer, "What is it? Like being a member of the used car sales people thing, is it?" Farmer 4 also did not know contractors could be registered.

²¹ <http://www.ruralcontractors.org.nz/Accreditation.asp>

Spraying and Fertilising Contractor thought that the problem of getting competitors to work together for such accreditation was a barrier: “What sort of madman wants to go and sit in a room full of contractors at a [RCNZ] meeting and everyone talks about an industry standard and yet they’re all competing with each other. It makes it very hard.” He did, however, think that they should be offering information and advice on current issues:

This is pretty serious times coming up, they should have somebody working on that. They should be producing a paper on it even if it’s only a ten paragraph paper and it shouldn’t be held liable or anything like that, but it’s information.

Machinery Supplier 2 commented that an important difference between the contracting industry in New Zealand compared with that in Europe was the level of professionalism:

Professionalism would be the first thing that comes to mind and I’m talking about Europe ... And if I’m unkind about the NZ environment, it tends to be the local guy who’s got a small customer base, 40 or 50 km radius of his area and he’s doing all sorts of bits and pieces, and their yards are not, you know, as well presented as you would like and their machinery is probably not as well presented as you would like and they’re not making as much money as they need to, to be professional whereas in Europe it is very different to that.

Some of those interviewed valued the fact that RCNZ offered a competitive insurance package, however, it did not offer bulk buying deals on contractors’ supplies.

Fencing Contractor belonged to the Fencing Association as well, “but they base their industry around their training as opposed to the lobbying, you know, that Rural Contractors do”. They thought that “everybody should get registered and up the ante so they can get bigger firms”. The most important aspect of the Associations as far as they were concerned was “to educate the farmers. That’s the biggest thing. That is actually 90 percent of it; getting the farmers and the employers, not only farmers, industry wide - the education of the farmers and the employers is a biggie in my opinion”.

Fencing Contractor explained the difference between being a Registered Contractor, Qualified Contractor and a Registered Fencer:

The Rural Contractors are a lot more in depth. They know what they are doing when they’re looking at an employment agreement, health and safety and that sort of thing. The Fencing Association, as long as you’ve got one, that’s all they care about. Rural Contractors’ registration does not have a quality in it; you don’t have to have a National Certificate. A Qualified Contractor does.

Those spreading fertiliser also had the option of belonging to the New Zealand Groundspread Fertilisers' Association Inc. This association offers accreditation for Spreadmark, which is a fertiliser placement quality assurance programme²². Spraying and Fertilising Contractor was not Spreadmark accredited because “I haven’t got one single farmer that asks for it and none of them care ... We’ve just found it is not worth the paper it is written on”. Ag Contractor was Spreadmark accredited but emphasised that the important aspect of Spreadmark was having systems that could verify proof of placement.

Both transporters belonged to the New Zealand Road Transport Association (NZRTA) which, according to Small Transporter, offered “newsletters, up-to-date rules and regulations updates, there are, well, retail benefits and supplies the industry with a voice as a whole really”. NZRTA also acts as an advocate for any issues with local and regional councils and has an input into the Road Transport Forum NZ (RTFNZ): “The authoritative voice of the road transport industry, advancing the interests of its members and promoting the contribution road transport makes to all New Zealand's lives²³.” Large Transporter explained the reasons for belonging to such organisations:

Because if you’re a small operator what you’re trying to get out of an organisation is fuel rebates, I mean cheap fuel, probably insurance – any of those sort of ... If you’re a medium sized member you want to belong because you want to be part of ... but the bigger guys are trying to get more clout with the Government.

The New Zealand Agricultural Aviation Association (NZAAA) is a voluntary organisation but “probably has close to 90 percent capacity for members – that’s fixed wing and rotary. They deal with civil aviation who are the rule makers and regulators. They lobby politicians ... they’re very effective at it” (Aerial Contractor). Aerial Contractor believed it offered one of the best industry association conferences as “it was very professionally run, relevant; they try to keep it relevant and make an effort”.

Scanner did not belong to any association, and although he knew other contractors, they did not meet on a formal basis.

Contractor associations’ summary

Industry associations offer a range of services to their members. Most offer information relating to changes in regulations, and information about new technology. Some have lobbying power at the political level while others offer bulk purchasing opportunities. Most

²² <http://www.fertqual.co.nz/page.php?11>

²³ <http://www.nzrta.co.nz/>

have regular local meetings and an annual conference which allows the contractors to mix with colleagues from outside their region, overcoming the competitive aspect of local contact. While almost all of the contractors belonged to a relevant association, their attitude to these associations ranged from those who were highly supportive to those who were dubious about their value.

Chapter 6

Results – the Farmer-Contractor Interface

6.1 Introduction

This section brings together the two parties within the contracting relationship, the sheep and beef farmers and the rural contractors. It seeks to answer the third research question, “How do rural contractors seek to meet farmers’ needs?”. This will be achieved through examining the perceptions, experiences and issues involved between individual farmers and contractors working with one another. The results of the survey raised the major issues that contractors had with farmers, as shown in Figure 6-1.

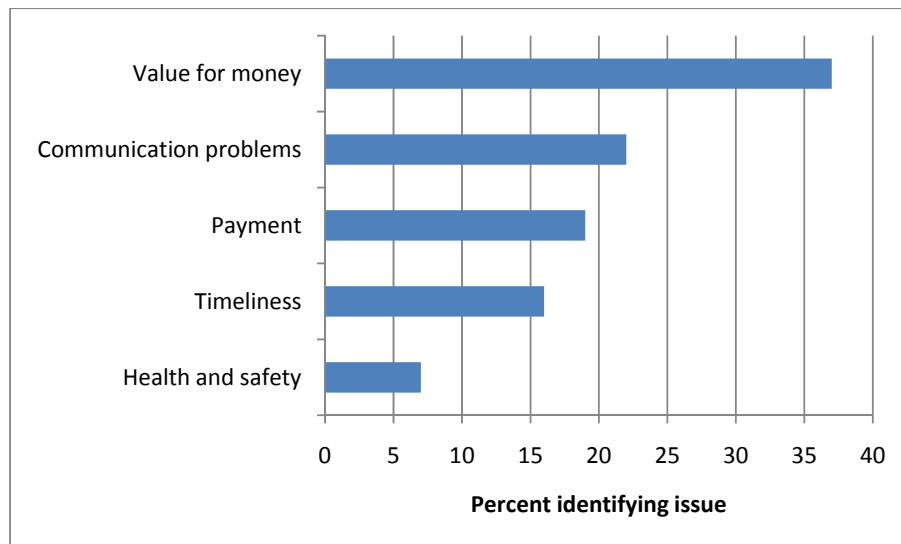


Figure 6-1 The client related issues affecting RCNZ contractors

By far the most important issue (37 percent) for the contractors was pricing. They considered farmers don't appreciate value for money; they believed the farmers focussed on price alone. The communication issues identified by 22 percent are possibly linked to the 'value for money' problem in that contractors perceive there is a lack of understanding by farmers about the services they offer. In addition, there are the day-to-day communication misunderstandings that occur in any service industry. Communication is also closely tied to timely delivery of services. Payment and 'timely payment' were identified as an issue by 19 percent of the contractors, followed by the problem of providing a timely service (16 percent). Health and safety came a distant fifth in importance, with only seven percent finding it a problem. These issues will be covered in Sections 6.2 to 6.6.

The challenge of reinvestment and technology up-take emerged through the interview process so this will be discussed in Section 6.7. While this research has focussed on sheep and beef farmers, it came through strongly that there is a difference in culture between these farmers and dairy farmers in their relationships with contractors. Section 6.8 looks at these differences as they highlight the sheep and beef farming culture. Finally, Section 6.9 considers the possible future of the rural contracting industry.

6.2 Value for Money: ‘Reputation is Everything’

The contractor survey indicated that getting farmers to consider the value they were getting from a service, rather than to simply look for the cheapest price, was a real challenge. Based on the results of the interviews, it could be that this problem is more specific to the dairy sector, where farmers are changing farms frequently and may not have developed a relationship with the local contractors. However, Spraying and Fertilising Contractor stated that “the value of the job would be the big one” when asked about problems facing his industry, and he had no dairy farming clients. Machinery Supplier 2 supported this opinion: “This whole pricing issue is something that has to be addressed because if they want high quality silage made for them for winter feed, they need to pay what high quality silage is worth”.

Cultivation Contractor said that “we consistently strive to deliver value for money”. They actually graded their clients: “We have always concentrated on treating our return customers the best, so we have always had an ‘A’ and ‘B’ and ‘C’ customer list and our ‘A’ customers we focus on”. ‘A’ customers were deemed to be both loyal and sustainable in that they were good farmers. ‘B’ customers might not pay as well: “They may be people who just might be getting you in because they perceive you as the lowest price, best value”. A ‘C’ customer was “someone you don’t want to deal with”.

Fencing Contractor talked about having clients who had been with them for over 20 years and had a lot of repeat work. At one stage they did a survey:

We took our top 10 clients and I had the survey that I did with them all and the top thing that they wanted was quality, and the second thing they wanted was quality for the money, and the third thing they wanted was health and safety.

Forage Contractor 1 had noticed that while farmers were concerned about the cost of making balage, they would often not provide him with a quality product to work with. As he said, “It

costs as much to make a bale of rubbish as it does to make a bale of good stuff". His farmers had little interest in the nutritional value of their balage, appearing more concerned with quantity than quality so often balage paddocks had not been fertilised.

Forage Contractor 2 did not appear to have a value for money problem as "I'd have to say that my three biggest farmers have never, ever discussed price". Both Aerial Contractor and Small Transporter had noted an increase in the number of farmers who asked for quotes. Aerial Contractor talked about their approach:

We try to sell quality to our customers. Most of them appreciate it. There's a limit to how much extra you can charge but you hope that price isn't everything ... It's the quality of the job and it's the safety that's important.

He had a current case where a farmer had gone against their recommendation for the chemical to be used and was now concerned about the level of weed regrowth: "He made the decision on dollar value that he wanted to do it this way". He considered it was the younger generation of farmers who were price-fixated in his area:

Younger farmers, around here, the young sons coming through, you've always got to do it, it's the dollar price. They just need training really! They need direction. The older farmers are generally more prepared to pay extra for a better job. They have more experience; they've seen what short-cuts do long term and it's not worth it.

None of the farmers mentioned that price was particularly important to them. Farmer 1 said that, "I've never asked those people for a price yet, that's not actually the way I do business so I'm probably unusual. I don't normally ask people a price." Farmer 4 looked for a contractor who would "do a good job for good money". Farmer 8 also recognised that the cheapest job may not be the best job: "It comes back to the contractor thing, you accept the cheapest price and get the poorest job and then wonder why the irrigation doesn't work or their plants die".

Farmer 10 was very aware of the pitfalls of accepting the cheaper contractor. He was "always a bit wary of fly-by-nighters floating around". He had been contacted by such people but always turned them down:

Because at the end of the day it's a fairly important understanding you have with your contractor, no matter what they do for you, and if you start chopping and changing, well, you lose that association you have with your contractor ... Once you sort of break that trust the whole thing goes out the window then. If you have a problem, most things can be sorted out. You end up coming to an understanding or an

agreement, but if you start chopping and changing just to save a few cents ...

Contractors who endeavoured to give a quality service were always prepared to back up their jobs. Those contractors who made mistakes without attempting to rectify them to the client's satisfaction seldom gained repeat jobs. Farmer 4 gave two instances of contractor mistakes. A contractor cultivated the wrong paddock and a shearer failed to turn up. "Never used the shearing contractor again and never used the cultivating contractor again."

Farmer 1 had talked about using Chemical Applicator because they were "widely respected, they back up, if something goes wrong they come back and fix the job." When interviewed, Chemical Applicator told of a mistake one of his staff had once made when spraying a paddock of barley to be used for stock food. Presumably the tank was contaminated with Round-up and the barley started to die off. He phoned the farmer to advise him to sow it with something else and said, "'We'll supply you with some barley in the autumn time.' So we did." The story continued:

We just bought some and got it delivered there and put it in his silo. The next year he rang me up again, 'I've done my paddock of barley, it's ready to spray.'

'Yeah, what do you want me to put on it?'

'The same as last year. It was the easiest harvest I've ever had! I just sat and looked out the window and saw the trucks come.'

Farmer 3 had had a similar problem and the contractor re-drilled the barley then compensated him for the loss in yield because the crop was sown so late. Farmer 11 had just experienced a slightly different problem. In their case the contractor, fooled by a boundary paddock with two gates, had put Treflan on a neighbour's paddock that was to have been sown in grass, despite being previously shown the correct paddock. The problem was sorted out amicably between the three parties but Farmer 11 pointed out that "in other cases it would all end up really nasty in a court. The strength of that with us, we know all the contractors and are reasonably friendly. They're all our neighbours and bits and pieces".

Ag Contractor had just put right a mistake made by "an operator that we didn't have trained up well enough". He had been drilling a paddock and had left gaps between each row. The farmer phoned so Ag Contractor went to have a look and told the farmer, "'This is a shambles. It's our fault, I take responsibility; we'll just come and do it again. We'll supply the seed and we'll re-do the job.' So an \$800 job became a \$2000 job. The farmer would happily

have accepted a discount, but “we can go away now and we’ll hopefully have that client for life”.

During the interview with Farmer 7 the account for fertiliser spreading arrived. It contained a \$200 credit for the time the farmer had taken to help pull the fertiliser truck out of a wet spot. Farmer 7 commented, “If you get good contractors, they are great”.

Spraying and Fertilising Contractor had put right problems such as when there was unexpected spray drift. He believed that it was important that he fix the problem himself without any input from the farmer. He did know of “guys that do it all the time and they just wipe their nose and walk away”. Large Transporter also took a personal approach when a mistake had been made. “Always ask them how they see it. You never offer, you ask them how they see it, how they want it fixed because the client’s always right.”

‘Value for money’ summary

Contractors consider that there are farmer misunderstandings about the prices they charge. They believe that some farmers want to pay the lowest prices, regardless of the fact that price is often related to the quality of the job done and the back-up service offered. Some of the contractors interviewed had gone to considerable expense to put mistakes right. Farmer 6 summed up contractor attitude: “I think those that are in there for the long haul, their reputation is everything and no matter what the cost, they will fix it up”, while Ag Contractor pointed out that “it just comes down to treating people how you’d want to be treated.” From the farmer perspective, they acknowledged the importance of building a good relationship with their contractors which meant not constantly seeking out the cheapest service. The discrepancy between the ways the two parties saw this issue indicated that maybe different farming sectors looked for different features in selecting their contractors.

6.3 Communication: Talking Too Much?

Some aspects of communication were covered in Section 6.2 under the discussion of value for money. Section 6.5 looks at how good communication is the foundation of providing a timely service. This section considers the day-to-day communication between the two parties.

Communication is a two-way process and despite being identified as a problem by 22 percent of the surveyed contractors, the farmers interviewed generally recognised their responsibility in promoting good communication with their contractors. It was evident throughout the

interview process that the contractors enjoyed communicating; contractor interviews averaged almost an hour longer than farmer interviews.

Forge Contractor 2 talked about the importance of communicating with a wide range of people such as the bank, his staff and his family “but then, getting out and talking with the customers, but I love that.” Large Transporter, however, thought that “farmers understanding our business better would help but they don’t care. I don’t blame them; they’ve got enough issues”.

Two of the contractors went beyond the usual communication method of the telephone. Forge Contractor 1 usually put out an annual newsletter and price list to his regular clients because “I don’t like arguments after the event. I like people to be informed and aware before we start any project”. There is a problem with this in that “I wouldn’t show it to our opposition”, although most contractors have ways of finding out the prices competitors charge. Fencing Contractor was in the process of producing a package for new clients. This was to be a booklet about what to look for in good fencing: “We’re just talking about the differences you look for in a fence. Still a work in progress. We’re trying to talk about the cost and what you can get for the same amount of dollar”. Thus, this was an effort to educate potential clients on gaining value for money but there was a problem: “So this is how we would like to educate people as to what to look for. The trouble is - who’s going to read it?”

Cultivation Contractor liked to be able to sit down with a client and talk about alternative ways of doing a job while Farmer 10 would always make an effort to have a face to face meeting with a potential new contractor. Spraying and Fertilising Contractor felt very strongly that his staff should have good communications skills beyond merely discussing a job with a farmer:

Even if they drove past in the loader and they just waved, or if the farmer went past and they said, ‘Hi, how’re you doing?’ ... a lot of them say, ‘Oh I don’t know who that is’ and just drive on ... That’s the standard I think we should be working on in the ag industry.

Large Transporter also considered this to be important for his staff, but personally went a step further:

Wives of farmers are very important ... I have reports. I have the name of the dog, the wife’s name. I take notes on everybody. The reason we do that? The wives are quite often the ones who pay the bills ... Farm workers are also important, believe it or not. Quite often those farm workers turn into farm managers, caretaker station managers ... They now give us work because we spoke to them. We didn’t treat them like scum; we treated them with respect.

In his early days in business, Scanner used to ring all the farmers back to check that they were satisfied with his work. Now he just rings new clients because “they soon let you know if... yeah!” Aerial Contractor felt that farmer communication was an area they could improve on: “It’s something we haven’t worked on really, but we should, as far as going up and knocking on their doors once a year. Most of them contact us when they want us”.

The major communication problem that came from farmers was contractors who were running late, but did not let them know. “Contractors don’t value our time,” said Farmer 9, while Farmer 7 talked about the lack of reliability that cost their balage contractor his job: “We could wait in the paddock, two, three, four hours, half a day. Hadn’t turned up”. Farmer 8 had a similar problem with his cultivation contractor. Farmer 11 found the behaviour of the local hedge-cutter frustrating, basically due to a total absence of communication:

Oh, this hopeless man does it. But he comes and he’ll do a couple of hours and then he’ll go away, and then he’ll come back and he might do four hours, and then he’ll go away ... slowly he potters around the neighbourhood so you’ll see him at the neighbour’s and you’ll give him a ring and ask him to come to us while he’s in the area.

Both transport operators were very aware and concerned about the problem of giving farmers an accurate arrival time, particularly as they relied on farmers to help load stock. “It’s probably a weakness of transport that we don’t ring when we’re late” commented Large Transporter, despite displaying a large sign in the office saying “Ring the client if you’re going to be late”. Nowadays, with ‘Navman’ able to pinpoint a truck’s position at any time, and with cell-phone communication, there is less excuse for farmers to be left waiting. Both of these contractors felt that if they were going to be more than ten to fifteen minutes late, then the farmer should be contacted, if at all possible. At times the farmer was the one not communicating well:

Sometimes they say they’ll be there too help and they’re not there and that’s especially for loading livestock or wool. They need to be there. I think that’s a commonsense minimum standard. I don’t think that’s too much to ask (Large Transporter).

Spraying and Fertilising Contractor always tried to “pre-empt communication because farmers are shocking at assuming you know what they’re thinking and assuming you know what they’re doing and what they’ve got planned at their end”. He also worried about lateness and tried to phone farmers a day ahead and then again at an hour to half an hour ahead. He also felt, however, that farmers did not always value the contractor’s time either: “Farmers have no idea how long it takes a contractor to open 40 gates”. He paid a large phone bill but

believed that “\$9,000 a year for your total business’s customer satisfaction guarantee, is pretty cheap”.

Fencing Contractor was also aware of communication problems and their consequences:

I’ve found the biggest thing with [farmers], if you’ve been running behind time (we’ve always been running behind time), the biggest thing is communication ... If you don’t ring them and they don’t hear from you and you don’t turn up they’ll just go, ‘Bugger them.’

Communication summary

Both parties are aware of the importance of good communication for a productive relationship. When possible, discussing a job allows the farmer to get the best value for money. A timely service requires communication from both the farmer and the contractor. In this section the main issue was of contractors not valuing farmers’ time. This was mainly due to the late arrival of contractors. In the trucking industry, this is a particular problem as it isn’t always possible to predict how long collecting stock from a number of farms will take. A chain reaction affects other farmers waiting to help load the truck. Most of the contractors recognised the importance of good communication, but with the time pressures they face, they do not always achieve their ideal. The last word here is from Forage Contractor 1: “I’ve been accused by my family of spending too much time talking to farmers on occasions, talking too much”.

6.4 Payment: Sheep and Beef Farmers are “Real Gentlemen”

Despite 19 percent of the surveyed contractors identifying payment or late payment as being an issue, the contractors interviewed were virtually unanimous in saying that sheep and beef farmers did not cause any real problems. A few talked about the occasional payment problem they had had, but even then these were not usually with sheep and beef farmers. With all of his clients being sheep and beef farmers, Scanner went as far as to say that “I think in 15 years, I’ve had one bad debt,” and Aerial Contractor stated categorically, “We don’t have trouble with late payments”. Cultivation Contractor pointed out that “sheep and beef farmers ... they’re real gentlemen. They’ll agree to do something at an agreed price and they will meet that the best they can”. Since most rural contractors service a range of sectors, it may be that there is a difference in payment attitudes in different farming sectors. Farmer 7 pointed out that “sheep and beef farmers tend to be much more conservative farmers, so we don’t spend the money that we don’t have. We are quite risk averse”.

Forage Contractor 1, with a high proportion of sheep and beef clients, thought that “probably 98 percent of our clients are very good payers; some by return mail”. They offered a discount system for prompt payment. According to Spraying and Fertilising Contractor, “the younger ones, under the 45 age bracket, a lot of them are getting on direct credit now which is good”. This meant that “I do the work for the customers and I charge it to their [credit number], so I send all the invoices to the [trading society] and two days after the twentieth I get the total amount less their accounting fee, which is a small percentage” (Forage Contractor 2).

Spraying and Fertilising Contractor thought that rural contracting would have to be:

The only industry in New Zealand, just about, where you can go out and do a \$5-6,000 job for someone and then ring them up and say, ‘By the way, what’s your address?’ And just sort of do it in good faith.

He acknowledged that local meetings of the Rural Contractors New Zealand had a benefit in that “they all yak about who the bad payers are, so no-one takes them on anyway”.

Chemical Applicator also had a high repayment rate but commented on one of their clients:

There’s the odd one we knew that, when he paid the bill for the spraying we did six months ago, that he wanted his sheep dipped, and carried on to the next season, and when he paid for the dipping you knew that within a week he was going to ring up and want some spraying done.

He believed that the introduction of GST had “probably been the best thing that has ever happened to farmers” because it made them keep their bookwork up-to-date. In former times, when farmers’ income consisted of a lamb cheque and a wool cheque, they only paid their accounts twice a year.

Ag Contractor also had clients who would ring up the morning after a cheque had arrived two months late, to request the next job. It helped that they offered such a wide range of services because farmers often needed them back for a different job. He commented that at times “you go to the roughest, most run-down farmer and you think, ‘Gee, this is going to be a long-term investment, this job,’ and the cheque damned near beats you home.” While they had a system of sending a letter after 60 days to say the debt collector would be called in, this was seldom used for sheep and beef farmers:

Sheep and beef farmers go through hardship and, you know, there’ll be a cheque and it mightn’t be for the full amount and there’ll be a note saying, ‘Can you hang out till my wool cheque comes next month?’ or we’ll get a phone call or whatever whereas a dairy farmer!

Large Transporter would usually visit a farmer who hadn't paid after 60 days to see if there was a problem:

Because you live in a rural community you might know the family is going through a divorce or the father's not talking to the son. You know the money's there, you know the asset's there. It's just a matter of when and who and how."

Although late payers were not a real problem they were charged 20 percent after three months, which most people accepted: "They know we're carrying the costs of having to pay that wage to pay for that family's food on the table. We've paid our road-users, we've paid our fuel bill."

Payments summary

The contractors had a range of systems for getting paid on time but admitted that sheep and beef farmers seldom caused concern. They might pay late, but they would tell the contractor this in advance and there was usually a valid reason for late payments. Perhaps Farmer 11 spoke for most sheep and beef farmers when she talked about their attitude towards paying contractors:

We pay on the 20th of the month religiously because we're really... they're not our bank. We have an overdraft. I feel strongly if you request work, then you pay for it on time. Because you requested the work, therefore you pay for it on time. We would be very intolerant of not being paid on time.

6.5 Timeliness: "Getting Things Done in Good Time"

It would seem to be something of a juggling act for contractors to satisfy the requirements of all their clients at the busier times of the year, such as during the balage season. Farmer 7 talked about the contractor who used to do their whole crop silage but tended to over commit himself. He would promise to be there at a certain time but this time got pushed back until "by the time he got there it was going rotten in the bottom, it had overgrown". He also happened to be the best operator: "You can almost tell his rows of silage, they're the best and his bales are the best to feed out of any I've ever done".

After going through their contractor list, Farmer 11 reflected on a common feature: "Most of all of our contractors are part-time contractors so don't usually have that full workload that gets so messed up if weather is against things. Timeliness is very important".

Farmer 8 had a timing problem with cultivation. In an area where rain was unreliable, he found the untimely delivery of service frustrating:

Direct drilling – it's the bane of my life, the spraying and direct drilling contractor we use is a young fella and he's trying to get ahead in life and he's just hopeless. He's just disorganised, he never comes when he says he's going to come ... You can't get hold of him and he never rings you back ... He's not that busy either, it is just slackness. A lot of people don't run their businesses properly.

At times it is not the contractor at fault, but the farmer who waits until the last minute to ask the contractor to come and cut his hay, or who is still getting his cattle in when the stock truck arrives at the pre-arranged time. Forage Contractor 1 gave a good example of this type of farmer:

They don't understand the hours that we work, they don't understand the pressure that we work under. You'll arrive at the place because they've got hay to cut; 'I've decided everything's all right so we'll do another couple'. That throws your timetable completely up the kybosh. You'll get the other ones that ring up, 'Oh my hay's ready.'

'Oh, what hay?'

'Oh, I cut it last week. Didn't I tell you?'

And one fellow said. 'You did it at this time last year.'

The contractors were all very conscious about timely delivery of their service. "We sort of prided ourselves in offering a good service. Part of that service is getting things done in good time" (Chemical Applicator). The contractors had a range of strategies to ensure that they could meet farmers' needs. One was simply not to make promises that couldn't be kept. "Timeliness, we tend not to exaggerate when we can do it. If I tell a man we'll be there in a week, I think we can probably be there in two days ... actually make sure you've got a buffer" (Cultivation Contractor). Forage Contractor 2 tried "to promise high but deliver a bit higher."

Resourcing was related to the ability to deliver on time. Those with bigger firms could swap machines and employees from one job to a more urgent one. "It comes back to having that spare person or resources" (Ag Contractor). "Because we're so diverse, some parts of our business may have a quiet time at some times of the year so we can swap people around" (Large Transporter). This was where employees with a rural background provided functional flexibility in being able to swap tasks easily. Spraying and Fertilising Contractor reinforced the need for over-capitalisation for the smaller operator: "You've got to be over-stocked with machinery, to be honest. You've got to have more capacity than what's required." He was

building a spray rig for a truck that was used for fertiliser spreading so it could be interchanged to match demand. It was possible for him to utilise functional flexibility by asking employees to work longer hours: “If you catch up you just work 40 hour weeks and if you get behind you just work 60 [hour weeks].”

Some contractors were prepared to sub-contract work out to other contractors if necessary: “I’ve got other contractors that I can call on for support. And we do ... Farmers are relying on us” (Ag Contractor). Large Transporter also talked about the importance of calling in sub-contractors “to make sure the service is provided”. Equally important was to cooperate with other contractors for shared jobs, such as carting in balage, to ensure the job could be completed before employees were “out of hours”. Members of the management team in his business would also drive at stretched times.

Those contractors who knew their clients well were able to manage timeliness more easily:

You’ve got to know your clients really well. If somebody says that they want you there ‘urgently’, somebody’s ‘urgently’ is different to somebody else’s ‘urgently’. Somebody will ring up and say, ‘Just when you’ve got time’ and they mean they want you there tomorrow. And you get to know your clients and the way they operate ... You get to know these guys, of how to prioritise a job (Ag Contractor).

Small Transporter talked about organising his runs around the “slowest [farmer] that takes the longest to get organised,” so that other farmers did not get held up.

Communication was an important aspect of timeliness. Often sheep and beef farmers plan their balage making ahead and let the contractor know when a paddock is shut up, or at least before they mow it.

We’ll probably tell them two weeks ahead of time that we’ve got something coming up and then we’ll talk to them quite regularly when we come to, ‘When do we actually cut?’ You know, when are they free and what’s the weather doing. The talking is probably quite regular for the last three or four days when you finalise ... (Farmer 11).

Farmer 6 who also mows his own hay, worked in closely with the contractor: “Well, I try and coordinate with them when they’re working in the area. There’s not only mine to do, there’s two or three others and they’re moving up the road ... If I want to do part of the work, you’ve got to be reasonable.” Farmer 10 also recognised the importance of good communication:

I’ve found with all the contractors and people that I use, as long as you give them notice, talk to them, you can work in pretty well with them. Having been on the other side of the ledger as well, I know what

farmers can be like ... It must be a nightmare in the hay season or whatever season, and you're right in the middle of it and you're trying to get everybody's work done ... and suddenly somebody rings up and says 'I've just cut 20 acres of hay or balage that I want done tomorrow' ... I know what you'd feel like saying to them!

When prioritising was essential, some contractors would tend to prioritise the jobs rather than the clients. As Chemical Applicator pointed out, thistle spraying was much less important than spraying Treflan: "You have to do Treflan when [the paddock's] ready, because the paddock is worked up, the contractor's probably sitting there and he doesn't want to be held up." Large Transporter explained that with applying fertiliser or sprays, the time of the year and whether it was crop, worked ground or pasture, was taken into account. For cartage, container work took priority over carting balage. Ag Contractor took a lot of factors into account, including how long the farmer had been a client.

Both Scanner and Aerial Contractor had small windows of opportunity for some of their work. With 70,000 sheep mated on Anzac Day, Scanner was under a lot of pressure but said "I've just got to work through that". Knowing which clients were the "better feeders²⁴" of their ewes helped in deciding the order in which clients' flocks get scanned. For Aerial Contractor "it's really in the hands of the weather gods but sometimes we've spread our wings a wee bit wide for what our capacity is", but on the whole his clients were "pretty understanding". Small Transporter also appreciated his clients: "The majority of our clients, we find them pretty easy-going and they do their utmost to work in".

Timeliness summary

While timeliness can be an issue for farmers, a good contractor minimises the problem of not being able to do a job on time by efficient project management, utilising a range of strategies. Having over-capacity is probably one of the more effective ways to meet farmer needs. Good communication works both ways and honouring promises ensures that farmers do not have unrealistic expectations. Knowing clients well, and being able to prioritise jobs accordingly, was also important. Farmer 7 emphasised this when talking about the problem of dealing with 'Johnny on the Spot'. She summarised what is perhaps the most important aspect of timeliness:

And so they develop those relationships, a good contractor, and get to know their clients and how they work, they'll work that all in and that's where they've got those people skills. And that's what makes them successful.

²⁴ Well-fed Romneys or Border Leicesters need to be scanned at about 85 days from conception compared to fine-woolled ewes which can be scanned at 100 days.

6.6 Health and Safety in a “Very Dangerous Occupation”

“We are in a very dangerous occupation and there are a lot of accidents and a lot of fatalities and we hear about other contractors [having accidents] all the time” (Ag Contractor).

The agricultural sector is notorious for the number of on-the-job accidents. “Each year one in seven claims to ACC is for injuries sustained by farmers, their employees, contractors, sub-contractors and visitors²⁵.” While some contracting sectors have low risks, such as the scanning industry, other sectors face high occupational risks. Large Transporter identified some of the hazards in his business:

We’ve got huge issues with working over height with stock crates ... Imagine our spray trucks with the chemicals. You imagine our fertiliser trucks going on the side of a hill. Our grain trucks with augers, and we shovel silos out with an open flighting. We’ve got numerous hazards.

The fencing sector has the potential for accidents from the post driver and from wire. In the aerial contracting industry, “you’re dealing with a fairly dangerous machine and you’re taking it onto someone else’s place” (Aerial Contractor). These are just some of the hazards associated with the actual job, but in addition there are the on-farm hazards such as over-head power wires, holes in paddocks and uneven terrain. Large Transporter knew of “three drivers electrocuted from low power lines” in his area. The researcher’s family farm had underground streams which caused ‘tomos’ (holes in the ground where the surface has collapsed due to underground water movement) to appear unexpectedly in the paddocks. Over time these had claimed a draft-horse, a tractor and a four-wheeler bike. It was impossible to predict where or when they might appear.

Legally, any employer is required to have a health and safety policy. According to the Department of Labour²⁶, “A farmer also has a full duty to others such as employees, contractors and persons who are in the vicinity of work taking place. But the farmer is only responsible for hazards within their control”. There are two aspects to health and safety for contractors. The first is their own health and safety policy covering on-the-job issues. The second is their relationship with farmers concerning the work-place hazards in the farming environment.

The larger contractors had full health and safety policies, but knew that a policy alone was not sufficient to prevent accidents. Fencing Contractor’s health and safety policy was a weighty

²⁵ ACC Thinksafe pamphlet, ACC397, *Farm Safety around the Farm*.

²⁶ <http://www.dol.govt.nz/workplace/knowledgebase/item/1418>

tome that was actively used. They had recently had an accident caused by a worker wearing loose clothing and acting on impulse. Just back from a two day training course, the worker admitted that “I forgot my training, I know I wasn’t supposed to do that”. Fencing Contractor pointed out that, “actually it can happen anytime. It’s only a split second of carelessness, something like that. It doesn’t matter how much training you give, it’s human error. You can train every day of the week”.

As a contractor who had been closely involved with a work-place fatality, Ag Contractor was very conscious of his responsibilities:

I believe we can always do better but we try and do the best we possibly can ... Yeah, we do have a full health and safety policy and it’s active. It’s not something that we’ve bought. [A staff member] is consistently upgrading and monitoring and making sure we’re having staff meetings and going through things.

He felt that younger staff tended to be a bit cavalier about their attitude towards safety: “I worry a lot about the staff safety because we have a lot of young staff and it causes issues of complacency and enthusiasm and sometimes it’s hard to keep the reins on all that sort of stuff”. While his workers are taught to look for on-farm hazards “it is their responsibility really, to us, not to push the boundaries”. Farm tracks, bridges, augurs with “dodgy switches”, foreign objects in paddocks are all hazards and “we’re exposed to it all the time and it’s up to [farmers] to pre-warn us”.

Spraying and Fertilising Contractor talked about fertiliser spreading on hill country: “There’s a huge macho thing among ground-spreaders: ‘I was on this hill and it was so steep.’ ‘I’ve been on this hill and it’s never been done before’.” As someone who once had this attitude and rolled the spray truck, writing it off, he asked,

What was the gain in that? Half a year’s profit in that truck down the gurgler. What did we achieve? Nothing. You actually get a wee bit of anti from the farmer because the farmer doesn’t appreciate that you’ve tipped it over.

His attitude had changed over time:

If you’ve got doubt that it’s too steep you shouldn’t even send your man there. Secondly if you’re a half decent employer, you should say to your guys, “If you don’t want to go there, don’t go there. I’m standing behind you 100%.”

Small Transporter had a health and safety policy that was audited every three months, but he believed that experience, commonsense and knowing clients’ stock were the keys to a safe

record. However he admitted that not all dangerous situations could be prevented: “If you’ve got animals, say a couple of bulls, who do decide to have a fight in [the truck] and you’re standing on top and everything’s rocking around, it can be a wee bit hairy.”

Large Transporter had developed a comprehensive health and safety policy which included regular health checks for staff. Each driver had a manual covering all aspects of health and safety:

What we’ve tried to do there is identify hazards and we’ve tried to minimise them. We have a ‘significant hazard’ register at the front which everybody views and is up-dated regularly. An up-dated version goes to the drivers in their pay pack of a hazard, a significant one.

Despite being investigated by the Department of Labour numerous times, their policies and processes have stood up to their examination: “You point out what we try to do, how far we go, take photos, write down the event. We’ve got an OSH form we fill out. [DoL’s] happy with that”. However, he knew of at least one local health and safety incidence (not their company) that was not reported and should have been “because the farmer would have gone for a skate. We’re too protective of our farmers”.

Both the forage contractors had health and safety policies but they did not feel completely confident about them. “Have I covered every possible scenario, even stupidity?” asked Forage Contractor 2. Forage Contractor 1 commented that he was not sure whether his health and safety policy was legally sufficient as “one thing I’ve learnt in life is that all that sort of stuff is always open to interpretation”. Spraying and Fertilising Contractor was asked if he had a health and safety policy. He responded, “Yeah we do. The employment contracts and stuff. But it’s the old story with agriculture, it’s so inter-changing from minute to minute, it’s hard to try and keep up with it all”. He believed that if they were to check out hazards with farmers, “you’d probably get nowhere during the day because of the time you wait for them to come and tell you everything. We all know that farms are just walking hazards”.

Fencing Contractor described what they saw as the requirements for the farmer-contractor relationship regarding health and safety:

When anybody comes in on our property or we go into anybody’s property you have to sign them in as a contractor. [The visitor] puts the time that they arrive here and the time that they go. Because we’re actually liable for [them] while [they’re] on our property. If we go onto a farmer’s place they should sign us in; they should identify all their hazards to us. There’s only two that have ever done it. And [the farmer] should check that [the contractor has] got their own health and

safety policy because if the contractor doesn't, then the farmer is liable.

Aerial Contractor was the only contractor who followed a formal procedure when he went onto a farm: "You are responsible to give a safety briefing to customers. That's the big thing and the customers have to identify hazards to you". They used a checklist which covered whether hazards had been identified to both the ground crew and the pilots, and whether clients had received a safety briefing, as well as the job details.

When asked whether farmers were aware of their legal requirements when a contractor went on to their farm, Forage Contractor 2 replied, "One! He's got me to sign a Health and Safety, and outlined the only really important thing in regards to me was to have a high-vis at all times because everything else is in-house really". Ag Contractor simply laughed when asked if farmers would initiate a discussion about hazards on their place. He believed that a predominant attitude amongst farmers was "It will never happen to us". In all his years of contracting he had been asked for his health and safety policy twice. He commented that "I'd even go as far to say that some of them don't care, to tell you the truth. Some of them are just oblivious to it really". He felt that after servicing a client for 10 to 15 years it was difficult to suddenly change procedures. Instead they tried to cover themselves through informal discussions with their farmers.

Large Transporter admitted that, "We have some farmers that we've signed health and safety policies and sighted their contracts. What they do is ask us to then induct the drivers on the hazards". He continued on, "There's two of them!" Large Transporter's client base is around 350 farmers, and these two were not sheep and beef farmers.

This attitude by farmers was explained by those farmers who were questioned on their responsibilities to the contractors who came onto their farms.

Not a lot, exactly, I suppose. I'd be lying if I said I knew exactly what has to be done. I believe I have to point out any hazards to them. As far to the letter of my responsibility, I'm not sure (Farmer 6).

What are my legal things? I just basically tell them to look out for. (Pause) I basically don't tell them anything. I take them down and show them the paddock and away they go (Farmer 10).

Farmer 8 was slightly better informed: "Identify any risks or hazards because if you're paying someone you are actually liable. I've got warning signs on the entry points of the property".

Farmer 9, who also had a tourist venture, was more aware of his responsibilities. He would provide contractors with maps and a radio telephone to keep in contact where necessary. He

ensured that he told them about the state of the farm tracks. He would have liked to have had a more formal process but was not sure what would be suitable and applicable. Farmer 7 was actually in the process of trying to draw up a suitable document for use with contractors.

Farmer 11 did not have a formal plan but felt they were very safety conscious. She was aware of hazard notification and would mark deer wallow holes with supermarket bags on sticks for the fertiliser driver. Her husband would often go in the truck with them because “at the end of the day we know our property more thoroughly than any contractor can and we know when a bank is steeper than it looks and those sorts of things”.

Ag Contractor thought there were three reasons for sheep and beef farmers’ negligence in this area. If family farmers have no formal employees, they are not necessarily aware of the need for employment contracts and the legal responsibilities:

A lot of these sheep and beef farms are family operations, don’t probably have labour content nowadays, especially our sheep and beef farmers ... A lot of them don’t employ staff; they’re just Mums and Dads and the family now, and also you’ve got to remember that probably they’ve been there for generations. Dad did it this way, Grandad did it this way.

Furthermore, unlike a dairy farmer:

Some of them would be lucky if they have three service people go onto their place in a year. It might be us as a contractor. It might be somebody else as a machinery repairer and it might be a shearing contractor and that would be the sum total of people.

Finally, there is no distinction between the workplace and home:

They live there too. Like I live in this workplace so there is no boundary of where is home and where is work sort of thing. And their recreation on a Sunday afternoon will be going around and doing the lambing beat but it’s exactly the same as Monday morning when they do the lambing beat and then shed off sort of thing. So I guess that’s why the sheep and beef guys are totally oblivious to the health and safety requirements, I would say more than any other farming sector.

Large Transporter had an explanation for the problem:

They’re probably aware of their responsibilities but not willing to address them because it’s such a huge issue. And the practicality of implementing the changes would outweigh the benefits. I think that would be a summing up of it. The law says you’ve got to take all practical steps but where does practical start and stop and where does commonsense start and stop?

As a farmer he admitted that “all we’ve got is a policy and a statement that sits up on the farms up there and that’s all it is. We’ve talked about huge [safety] issues up there too”.

Finally, Machinery Supplier 2 believed that “health and safety is all about attitude. It’s also about training and the less people that you’ve got to train the better chance that you’ve got compliance around health and safety”. He implied that a more stable and better trained workforce would improve the health and safety record of contractors. He also pointed out that having a health and safety policy was not the complete answer to safety:

You can have all the systems in the world but if people don’t believe in it, don’t do it, don’t have the attitude for it, it doesn’t work. And I believe that the professional contractors, that top two thirds that we’ve got are very focussed on it. It’s the guys that we’ve got who are perhaps part-time, are perhaps not that experienced with their equipment, in a hurry, who make mistakes and they grab the headlines.

Health and safety summary

Contractors and farmers both work in an industry with a higher statistical probability of workplace accidents. Contractors who employed a number of workers were very conscious of their responsibilities and had active health and safety policies. Several related anecdotes about workplace accidents that had happened to them or to other contractors. The smaller contractors tended to be more reliant on experience and commonsense to keep them and their workers safe. There is a legislative requirement for farmers to inform contractors of hazards on their farms, but in many instances this did not happen. There are several explanations for this. In some cases the contractors have been going to the same farm for so many years that their relationship precedes this requirement. In terms of a Health and Safety policy, some did not know what was required, and some simply did not know how to go about implementing a suitable policy.

6.7 Machinery: The Boy Racers of the Tractor World?

While investment in machinery and technology uptake did not emerge in the survey results as important issues, the interviews revealed that investment in machinery is an important consideration for contracting businesses. This would be expected in an industry where total investment levels averaged around \$1,000,000 for the 65 surveyed and over \$2,500,000 for the 11 contractors interviewed (see Figure 5-6 and Table 5-2).

Contractor 1 talked about setting himself up in the contracting business : “We set up our company and bought a brand new tractor, a brand new baler and a brand new hay rake. Which was a major commitment on our part”. Even with his new venture into trucking, he “exercised my usual principle on the matter and decided I would buy new, not second hand”. On the other hand, Fencing Contractor talked about the importance of using older tractors in his business:

We’re not big investors in machinery. We prefer to use old tractors; we are just doing up one of our old ones because the new ones are really high and the older ones are low and when you’re going up four steps every post, 200 times a day it makes a big difference. Also the older ones are easier to repair, we can do them up in the workshop here; later ones you can’t do yourselves because they’re all computerised, all big money repairs. We don’t like cabs on them because if you’re jumping on and off a tractor and you’ve got to open a door every the time it slows you down.

Forage Contractor 2 admitted that contractors are concerned with the image their machinery presents to farmers:

As much as you like it or don’t like it, it’s a very basic business but there is image in this business. There is an image. A farmer knows that if a reasonably modern tractor and baler goes up the road, that that indicates a slightly more successful and forward thinking business than the guy that’s got an old heap of shit that’s covered in bird shit.

Most of the contractors were conscious of the importance of both workers and machinery being well presented. “My guys are told to keep everything clean and shiny” (Forage Contractor 2). “We keep them tidy. We paint them regularly and keep them clean and tidy” (Fencing Contractor). For Farmer 7, the preference for modern equipment depended on the job. He would want someone with a modern drill, otherwise, “I look favourably on well looked after, well maintained equipment as [the contractor] would probably be conscientious in doing the job”.

Ag Contractor had a slightly different attitude: “You know, we spend a lot of money on sign-writing and advertising. The guys all have overalls and shirts and bits and pieces and all the safety gear”. He claimed this was as much for his workers as his farmers: “Image is a big thing, but that’s only to make the guys feel good about themselves, so they are wanting to take pride in their work pretty much”. The importance of image extended to good driving behaviour by truck drivers and making financial contributions to the local community. Both transporters and Scanner mentioned supporting local clubs and events financially, as part of their local community image.

On the other hand, Farmer 4 considered that the image was driven by competition between contractors:

The image thing within the contracting industry, it is all about, 'My tractor is bigger than your tractor'. Especially with ag equipment, they are quite keen on modern equipment – the boy racers of the tractor world! GPS is an innovation that contractors think is a great idea and will advertise this, or having a 23 run drill when everyone else has 20. From the farmer's point of view it suggests to them if they get a better drill, they will get a better job.

Forage Contractor 2 believed that having something under warranty or reasonably new reduced the risk of breakdown during the season, but also that "repairs and maintenance is far better for the balance sheet than is asset purchase". Another advantage of having modern balers was its attraction to those workers who came from overseas: "They'll put up with an oldish baler as long as its modern and it has good productive ability. [An overseas employee] doesn't want to go out there and bang out 200 bales in a day, have something breaking down, odd shaped bales, ugly looking baler". Baler operators are competitive about the number of bales they can produce in a day. Farmer 7 verified this, "I worked for a baling contractor and there was a sense of achievement to do x amount; I can remember doing 700 bales over 24 hours. I remember working 36 hours without stopping".

Ag Contractor had a similar attitude toward reinvestment. Their primary goal was to make sure that their farmers weren't "let down." Farmer 7 did not think that "the farmers demand you to have the latest equipment but the farmer is going to demand, and your business is going to rely on the fact that, that baler has to go for the whole season without breaking down in the middle of it". Ag Contractor replaced tractors "when we see fit as far as financial market allows, depending on where the dollar is". Their policy was to consider what made them a profit:

Our policy is our equipment is priority over the likes of the tractors because you can probably make do with the tractors; they're more of a comfort creature as long as they are reliable. The technology, the hay gear and everything is what makes us the money.

He recognised that "it's a balancing act being able to keep up with technology and use technology as your experience of how to handle these sorts of jobs". Farmers employ contractors because they "find [the job] too difficult to handle, or he hasn't got the time or the resources so he's relying on a contractor to do it cheaper than he can, more efficient than he can and better than what he can." Ag Contractor had started with second-hand machinery, and

have owned some very expensive gear, however, “the most profitable gear we run is some of the older, non-flashy sort but it does some of the better jobs”.

Machinery Supplier 1 supported the view that “a lot of [farmers] just rely on the contractor to be up-to-date and to have the latest gear and to know what he’s doing”. In fact, he thought that the average farmer just wanted to get the job done as cheaply as possible: “It takes a very good farmer to actually insist on certain machines or applications done in a certain way of the contractor, to ask that of the contractor”.

Farmer 7 certainly relied on Forage Contractor 2 to have the right gear to produce good balage:

I guess it’s a lot to do with the balers as well. [Forage Contractor 2] does a lot of homework on what balers are good and what aren’t. I suppose if he’s got the best baler all you can do is make the best judgement on the day as to whether the conditions are right. I presume there are balers and balers. Some are better than others.

Farmer 6 employed a contractor to do his direct drilling, as the contractor used a cross-slot drill which is highly suitable for dry stony conditions. In the past he had considered the use of a contractor too expensive so had done the cultivation himself, but “all I did was end up cultivating all the moisture out of the ground and we had very average crops out of it”. Farmer 11 hired a contractor for ploughing as “we’ve only got a two furrow plough and the contractor has, I don’t know, a four or five”. Farmer 11 still owns a drill but “our drill is probably 40 years old now and they’re so expensive. So, do you buy one or do you just get the contractor to do it?”

Both transporter operators had ‘Navman’ installed in their trucks. This was so they could claim back their off-road portion of road-user tax, but it also provided information on the location of their trucks at any point in time. It also offered an easy method of communication with the drivers. Both operators’ fertilising trucks had GPS. Small Transporter explained that it was an extra cost they probably wouldn’t charge for:

It is quite handy to go back on if somebody rings up and queries what you’ve done or you think your spreader is not spreading right ... is guaranteeing that you are driving at the right width so these guys can be guaranteed that there is no overlapping or undercutting.

Large Transporter charges a small amount for providing the GPS data which they have had for three years. Utilisation by farmers is not high: “So sheep and beef farmers are probably a little bit behind the scenes there. Some of the stuff we could offer them – are they willing to pay?” When asked about the introduction of new technology Large Transporter said that they

were “never first. Always second, let someone else experiment. Every time we’re first it’s a disaster and it must be for everybody else that’s always first”. Farmers were definitely not the drivers for technology up-take in his business.

Aerial Contractor worked in an area where spray drift could be a serious problem. They had invested fairly heavily in equipment that allowed precision application of sprays: “We use some pretty fancy spraying gear so spray drift is not a problem compared to what it used to be”. In order to overcome some problems relating to provision of a timely service, they had been “trying to address that by taking on more machinery ... it’s pretty heavy in investment and equipment”.

Spraying and Fertilising Contractor had GPS guides on his fertiliser trucks, but not the more sophisticated options. In his opinion, “we can go and spend tens of thousands of dollars on Precision Tracking but if the guy behind the steering wheel is no good - waste of money”. His annual reinvestment was minimal and like Chemical Applicator, his business built some of their equipment themselves. While he used modern spray technology, “you could never be up with the newest technology ... You could not charge enough per hectare to make it worthwhile”. He thought that they were “very, very lucky in that the people that we do work for, spraying and spreading, 90 percent of them have got no idea about how we do what we do, because otherwise they’d own one themselves”. This meant that as long as their gear looked clean and tidy the farmer would be happy, unlike “if somebody drove in with a cultivator that had broken tynes - the farmer would know”.

Scanner had the lowest level of machinery investment with less than \$100,000 worth of equipment. He believed that “at the moment I think my stuff’s at the top end of the market” and he up-dated his sign-written utility truck every second year, although “I don’t know whether I’ve got any work through it!” He had developed a computer programme that could input his scanning data in the sheep yards and send it directly to the farmer’s computer. Chemical Applicator “always liked to keep up with things”. He had introduced computers over 25 years ago and GPS eight to nine years ago. He had designed and built a sheep spraying unit which was a revolutionary innovation when first produced about 30 years ago.

Cultivation Contractor did not “get seduced by shiny paint and new innovations” as “it is human skill that is still the denominator that determines the efficiency and quality of the outcome”. He believed that their reinvestment levels would be lower than a lot of other contractors. “I think we’ve adopted principles around maintaining equipment that are a lot stronger than a lot of other contractors have.” Their annual reinvestment level was around 10

percent of their total investment. This was relatively low compared to the other contractors who invested up to 20 percent, but none of them were in a comparable business. The closest type of contracting business was that of Ag Contractor, whose annual reinvestment was 12-16 percent, but he offered forage making as well as cultivation. Cultivation Contractor focussed on maximising profitability rather than investing in new equipment. Instead of looking at costs on a per machine basis they looked at:

What is the machine doing? How profitable is it? The machine is only a tool so we began to look at our machinery as a carpenter or plumber looks at his tool bag ... If it's an essential part of your tool box you must have that tool, so don't throw it away because you've spent a lot of money on it. Sometimes it is better to look after it and keep it. You can actually hone the edge, make it sharper to do the job too.

It was apparent that sheep and beef farmers did not drive technology up-take. They had little reason to, not being required to trace chemical or fertiliser placement. In fact, Fencing Contractor related a discussion from a recent Rural Contractors New Zealand meeting in Southland:

Some farmers were saying, 'Well, you guys, you've got your big new flash gear and we don't want to pay your terms just for you to have flash gear.' So there was the complete opposite from the farmers, thinking that new gear, flash gear, high payment ... John Hughes [RCNZ President] was trying to explain to them it didn't matter what the value of the tractor and the gear was, it was the per hectare price that counted but the farmers just had it in their head, 'new gear, high cost'.

The machinery importers have the best overview of the up-take of technology by the rural contractors. Machinery Supplier 1 believed that the importers "drive technology up-take but contractors are thirsty for new technology". In his opinion:

New Zealand contractors would be among the best up-takers of new technology. They are very quick to adopt and adapt, for example Australia doesn't sell the same spec machines. The contractor system is very advanced in NZ even compared to Australia. Over the last 5 to 10 years contractors have become very professional. In an effort to make their businesses more efficient they are keen to adopt new technology.

The contractors have their own contacts overseas. "Often they know about things, even before we do sometimes." The seasonal workers from overseas "bring stories about new things that are coming out." The internet, however, has revolutionised access to information on new technology. Keen contractors do their own research through internet websites and blogs

written by operators sharing their personal experiences with new technology. Machinery Supplier 2 talked about the bell curve of innovators:

There are the early adapters, who may not be the biggest players but are the guys who are searching regularly; they're interested in that new bit of gear and will give it a go ... Probably have got some payback, but probably hard to justify if they analysed it but are setting the attitude for others ... Then there's a big group in the middle who are picking up bits of it and probably making the money out of it and not as leading, but using what's available, and then there's a group at the bottom who we'd all probably say, are either part-time or change-resistant and over time, unless they've got a very loyal customer base, will probably fade away.

He recognised a group of second or third generation contractors he called "machinery-ophiles", who are often very brand loyal. These people have been involved in the evolution of adapting particular brands for local conditions within New Zealand. "But I think all the professional contractors that we do business with are getting more and more interested in where technology is going." Employment Specialist held a slightly different view:

All contractors really want is reliability and a good product ... They want something they can rely on and it's not going to cost them a fortune and they know that it's going to do the job and it's going to do it well. They don't care how it does it or what bells and whistles it's got or ... they just want the tractor to do the job.

Modern tractors can change "all the configuration of the buttons and what they do and the speeds that the rams go ..." at the push of a button. Once again, such a machine relied on the person operating it: "The biggest thing for the guys that are trying to learn is to set up the machine to do the best job that it can actually do." However, in the end, he believed that "it is all about production really, can we do the job quicker and more efficiently and still have the same result in the end? And if we can, we will, and if we can't, then we won't change it."

Some innovation is driven by environmental issues such as the proof of placement of fertilisers and sprays. In the trucking industry Large Transporter reported that there are trucks with 'lane-assist', which means the driver cannot move into someone else's lane. In Europe there are trucks where the driver no longer needs to hold the steering wheel; "it's all good stuff but it costs".

In the main, Machinery Supplier 2 believed that technology up-take was driven by contractors trying to make money in a highly competitive industry with a high capital investment and a low return. It was about increasing productivity:

So when we talk to a farmer or a contractor about buying our equipment it has to be about how we can do it for less money. So when we've been talking to them about technology it will be about how can we take that half million dollar forage harvester and get you to be able to use this to make more money out of it. So if it's about engine diagnostics, it's about reducing servicing costs. If it's about GPS it's about being able to steer it in a straight line. If it's about being able to put rock stops and various things on it, it doesn't cause more maintenance issues.

He explained that a lot of research and development has been spent on improving reliability, and on "how to do more, faster, pushing gear harder". There was a close link to the labour supply:

And again, we've got less and less labour available to us that are proficient at operating this equipment so we want to replace, probably three units with two units. We want to take equipment out so we see long term that we'll sell less pieces of equipment but it will be bigger and it will do more and there'll be less direct operator expertise to operate it. There'll be more electronics to help them do the job.

Machinery summary

Contractors had varying approaches to machinery replacement depending on the types of services they offered, but most believed in having clean, tidy well-presented machinery, regardless of its age. They thought that farmers would see well-cared for machinery as an indication of a well-run business. Farmers agreed with this view. The sheep and beef farmers did not expect a contractor to have the latest machinery, only that the machinery be reliable and the operator would do a good job. The machinery suppliers believed that the contracting industry was keen to take up new technology, providing it would increase profitability. Machinery Supplier 1 thought that New Zealand contractors were very quick to adopt and adapt new technology to New Zealand conditions. "The newest, therefore the leading technology in the world, is here. We mightn't always have the biggest ... but in terms of how to make the machine the most productive it can be, is here" (Machinery Supplier 2).

6.8 A Cultural Divide: Sheep and Beef Farmers versus Dairy Farmers

While this research project has focussed on South Island sheep and beef farmers, it was highly likely that contractors based their responses on all their clients. In most cases these clients included dairy farmers. At times differences between the two types of farmers emerged, and it became apparent that the results would have been different if this project had focussed on

dairy farmers. This section considers how those interviewed see the difference between sheep and beef farmers and dairy farmers, mainly in the context of contractor use.

Cultivation Contractor, who graded his clients on an A to C scale, claimed that “sheep and beef farmers, very few of them are C customers”. However if these sheep and beef farmers became dairy farmers then “what was an A- sheep farmer would probably turn into a B+ dairy farmer because the dairy farming puts extra stress on them and they tend to be a bit more aggressive in the preservation of their enterprise”.

Spraying and Fertilising Contractor elaborated on this aggressive aspect of dairy farmers:

They know what their bottom line is, they can budget their farming for the year and they know what they want to pay for their contracting service. And it should be the other way around. They should be working out what the contracting service is actually worth but they know what they want to pay and that’s why we don’t deal with them because they’ll ring up and say, ‘Hey, I want it done for \$6.50’.

He admitted there were “a lot of good dairy farmers out there”, but believed that a “lot of young guys about my age coming through” were only concerned with getting the price down and not particularly interested in the quality of the job. “Everything they do is just to beat the dollar down, beat the dollar down, beat the dollar down.” By contrast, sheep and beef farmers were much less demanding and happy to pay a higher price. As he said, sheep and beef farms were not just family farms, but “generation farms” which implied a different attitude to farming.

Fencing Contractor pointed out dairy farmers would always try to beat the price down: “We’ve got 45 ks of fencing to do, that’s a big contract, you’ll do it for cheap”. Since these were one-off jobs, there was no benefit to the contractor to offer a cheaper service. “The old established farmers don’t do things by price. The new farmers, dairy farmers, will go by price. And you get what you pay for.” In addition, Fencing Contractor had had to wait over four months for a big dairy company to pay as it had run over budget on a dairy conversion; the fencer is one of the last contractors involved. Ag Contractor was also concerned about the payment habits of dairy farmers compared to the reliability of sheep and beef farmers: “But these [dairy farmers], I don’t know what they think actually half the time, I really don’t”.

Large Transporter said that formerly dairy farmers had had a “sharp rate” but that was no longer the case. “The main reason the dairy farmer doesn’t have it is because he is unorganised. There’s a fudge factor”. According to him, “dairy farmers are very organised with their fertiliser but very unorganised with livestock movements”. He found them likely to

phone up and say, ‘I’ve got 100 cows I need to move today’. His experience showed that sheep and beef farmers often want small acreages of balage done, four hectares compared to a dairy farmer’s 40 hectares. However, Employment Specialist, with his dairying background, believed the opposite: “In all fairness as far as silage and things like that goes, sheep and beef need silage, deer guys need silage, dairy guys don’t”. The sheep and beef farmer will have a bigger area of balage as they need to conserve feed. “They might drop 100 ha in one go sort of thing. It fills up their pit and that’s sort of done for the year.” In contrast, the dairy farmer will simply cut a few paddocks when the grass gets ahead of the cows, to control the quality, and then buy in any extra feed requirements.

Farmer 10 recognised the interrelationships between the two farming systems with regard to the making and selling of surplus feed:

But I think in this day and age where the dairying thing has become such a big factor and I don’t care who you talk to but it affects everybody. Somewhere down the line we’ll all be affected by the dairying thing and if grass grows people are more likely to make it into hay or balage or something and sell it to the dairy farmers.

Farmer 11 lived in an area where dairy farmers had relatively recently moved in. Initially they developed close friendships with the dairy farmers, but when these farmers moved on after two years, they realised that their relationships would have to remain on a more superficial level. Dairy farmers did not become part of the local hay-making and machinery sharing activities. In addition, there was some animosity towards the environmental attitudes of the dairy farmers in an area where generational farming is still the norm. Farmer 11’s husband had worked for a silage contractor and was horrified at the poor silage pit quality accepted by the dairy farmers:

There was mud and they just kept pouring dirt into the mud until there was enough for the trucks to drive over, or the old cover was still there and they just dumped the new silage on top. Stuff like that whereas we ... it’s so expensive. And we don’t want to waste any. And then they didn’t cover things ... As long as the physical quantity is there, the quality isn’t so important.

Farmer 7’s view was that “unfortunately the dairy industry is killing the good old good-faith relationship like no tomorrow. It wasn’t too many years ago that any handshake was all the paper work you ever needed”. This was a reference to recent events where dairy farmers had reneged on contracts drawn up over the supply of maize to contractors.

Ag Contractor talked about dairy farmers being more conscious of the need for contracts in farming relationships. For a dairy farmer, “I guess there’s a lot more happening all the time. They might use a contractor for spreading and spraying and irrigation and drainage and silage and fencing, you know, even down to AIing and herd testing”. Since dairy farmers employ a lot more staff than sheep and beef farmers he considered that:

Fifty or 60 percent will possibly have some sort of contract involved in their staff whether it be a share milker or a contract milker or something along those lines, so somebody has actually written into a contract of having the responsibility of health and safety in some form or another. It is actually talked about or approached or signed off, or it’s on a document somewhere; you just don’t have those things happening on a beef unit or a sheep unit.

Despite this, dairy farmers appeared no more conscious of their responsibilities to warn of hazards than the sheep and beef farmers. Both Fencing Contractor and Large Transporter related stories of accidents on dairy farms that would not have happened if the farmer had taken his responsibilities seriously.

Dairy farmer summary

Dairy farmers were considered to be much more price conscious than sheep and beef farmers, opting for low price over value for money. They were less reliable payers. Contractors had differing opinions on their levels of organisation and communication. Farmer 11 succinctly summarised the difference between sheep and beef farmers and dairy farmers; a difference that colours their relationships, both with each other, and with their rural contractors: “Because we’re here forever and they move every three years. That will be the world of difference between them”.

6.9 The Future: “A Bit of Luck”

Overall, the health of the rural contracting industry is reliant on the health of the agricultural industry. This section is not concerned with the future of the economy, but is limited to where the interviewees see the contracting sector heading. From the RCNZ survey results, 46 percent of contractors saw their businesses as growing, 49 percent as staying the same size and only 5 percent as declining in size. Seventeen percent cited the recession or the lower dairy payout of that time as the reason for their lack of growth, or for their decline.

Since so many contractors are highly dependent on the dairy industry, the outcomes of the water issues in Canterbury²⁷ will have a strong influence on the overall growth of some sectors such as the forage makers, cultivators and spraying and fertilising contractors. On the other hand it will have a negative impact on those reliant on sheep, such as the shearers and scanners. Ag Contractor saw access to water as the biggest issue of the moment:

For every farm that has irrigation, their production is so much more. They can run more staff. Sure, they can run more stock and everything else but it accounts to so much more for the economy and for the community. It's a vicious circle. You end up with so many more issues and so many more problems to deal with ...

Spraying and Fertilising Contractor did not see that more irrigation would bring business the way of the contractors because:

... the intensive farmers will just go and buy more gear ... I think contractors over-estimate their service a bit, would be one of the biggest problems. What they've got to remember is they're actually not doing something that no-one else can't do.

In fact, he believed that in the future there would be better jobs than contracting through working for the big corporate (arable) farms as "they'll be looking for someone to be running a spraying-side across, say, 10,000 hectares of land and you'd make a lot more money doing that than you would doing what we're doing".

When asked whether a possible change from sheep and beef to dairying would be beneficial for their business, Small Transporter responded, "I honestly don't know". With regard to the local farmers: "I can't see things around here changing in the short term. There's people we're dealing with now are children of the original clients, so to speak. And they're pretty much doing what Dad was doing".

Cultivation Contractor saw the reliance on overseas labour as a serious issue: "If, for instance, a pandemic developed this winter and New Zealand airports were closed, there would be a 50 percent deficiency of labour for our harvest". He thought there needed to be a much greater focus on training local people within the industry.

Ag Contractor, Chemicals Applicator and Large Transporter all saw traceability as being important in the future. "Oh it's happening now; it's not legal but it could become a by-law and it depends on [ECan] what happens there ... it's only a couple of years away, I'm sure" (Large Transporter). Chemical Applicator thought that "the whole traceability thing is going

²⁷ This thesis was written during the time when Environment Canterbury (ECan) was being governed by commissioners and the future of water use in Canterbury had become a highly contentious issue.

to get more and more, and worse and worse. Our industry is particularly vulnerable. Everything has got to be traced and as soon you call something 'a chemical' it is bad". He did not, however, believe that chemical use will decline because farmers "need them". Ag Contractor also thought chemical use will become a big issue because "We're almost at a stage where people are going to pay extra for knowing that [food] was safe".

Employment Specialist noted that there would be some growth from farmers deciding that "my time's worth x amount, and to get this guy in it's going to cost me this, and I can be doing this while he's doing this so, yeah, bring him in ... it's probably not just the ability but the convenience thing as well". As an example he talked about farmers using conveyor belts, supplied by contractors, for drenching sheep. He also foresaw a potential growth in effluent spreading in the dairy industry, due to an increase in dairy indoor housing and legislative changes for effluent disposal: "They've got a picture on the back of the Farm Trader magazine and the thing's spreading, but it's spreading money". After reflecting on the way farmers currently use contractors he decided that "as far as the rural contracting goes, you can't really do without them. As far as farmers, with the way that farming is these days, you can't afford not to have the specialist providers".

Machinery Supplier 1 saw a positive future for the agricultural contracting industry:

So I think that as farms grow in size the contracting system becomes even more important because it is only really the professional contractors that can make that equipment work and pay off because they can get more utilisation off one machine than any farmer can.

He believed that this was a good trend because "your efficient fencer or contractor is going to do a better job and actually do it more economically". Farmers might think they were paying a lot for the service, but "to do it himself is actually more expensive".

Machinery Supplier 2 was not convinced that the rural contracting industry had grown recently but felt it had consolidated. He held the view that the machinery will continue to get bigger.

People are looking for emergency and immediacy and all of those things. Farms are going to get bigger anyway and I think that they'll see that this big equipment that they don't get a lot of direct utilisation out of, is better to be contracted.

He agreed with Employment Specialist that there was likely to be greater regulation around effluent disposal and fertiliser and spray usage. Farmers then will not be able to "justify the

capital expenditure to comply”, so would more likely call in a contractor. His business had seen recent growth in seeding equipment, big fertiliser equipment and spray technology.

His personal crystal ball showed that:

Over time some bigger regional players will appear that are business managers that have been a contractor. You need to understand the aspects of business, the fundamentals of the business and have trust from your customers, that you know what you are talking about ... these large regional players I could see appear in each region and then there'll be specialists that are about as well that will either fill the roles that those large contractors don't do or are just very good at doing something, so they're more owner-operators.

'The Future' summary

Future growth of the rural contracting industry is tied to the health of the economy and growth or change in the agricultural sectors. An increase in dairying through increased irrigation would result in increased growth in most, but not all, of the contracting sectors. Legislation around sprays, fertiliser application and effluent disposal is likely to increase the use of contractors in these areas, as greater compliance and accuracy of placement is required. Finding skilled labour will continue to be a problem with the current reliance on overseas workers deemed to be a concern. Overall, farm sizes will continue to increase, farm machinery will get bigger and so farmers are likely to rely more heavily on the contracting sector. According to Forage Contractor 2 a successful future depends on “a bit of luck, a bit of luck with your customers, a bit of luck with the weather, a little bit of luck with the state of the globe”.

Chapter 7

Discussion

This chapter is divided into three sections, each covering one of the three research questions that contribute to answering the primary question, “What is the role of the rural contractor on South Island sheep and beef farms”. Section 7.1 considers the farmers, Section 7.2 looks at the rural contractors and Section 7.3 explores the interrelationships between the two parties. While Section 7.1.1 provides an overview of family farming in the context of this research project, Section 7.1.2 looks at family farms in greater detail. It firstly considers family labour use, then the strategies that farmers use to change their labour use, and finally the impact increasing pluriactivity has had on labour use. Section 7.1.3 considers the place of permanent labour on farms while Section 7.1.4 looks at casual labour. How the use of rural contractors fits into this mix is examined in Section 7.1.5 and Section 7.1.6 provides a conclusion to the research question “How do sheep and beef farmers decide on the particular combinations of labour they use?”

7.1 How do Sheep and Beef Farmers decide on the Particular Combinations of Labour they use?

7.1.1 Introduction

Family farming is ‘far from dead’ within New Zealand, particularly within the sheep and beef sector (Brookfield, 2008). Low employment levels of only three quarters of an ‘employee’ per sheep and beef farm, suggests that the majority of farms still use family labour²⁸. With increasingly diverse ways of legally setting up farming entities, it would be difficult to determine which farms are traditional family farms. Stevens et al. (2007), in their study covering 292 sheep, beef and deer farmers, found that only two percent of those surveyed indicated that they were corporate farms. The results of this research reinforced the importance of family labour. All of the farmers interviewed had very strong family links to the land, often going back several generations. This corroborates with the results of McCrostie Little and Taylor (1998) who noted this strong relationship over seven years of farming research.

²⁸ Figures from Sheep & Beef Farm Survey supplied by Meat & Wool New Zealand Economic Service, 2 April, 2009.

With growing competition as a result of globalisation and a reduction in trade barriers, plus increasing transportation costs, New Zealand farmers are continually looking for ways to decrease their input costs. As labour is a major input cost on farms, farmers seek to minimise their labour use where possible (Speight, 2005). The use of family labour needs to be taken into consideration when determining how farmers make the decisions about the labour mixes they use. However, this study is primarily about how rural contractors fit into this mix. Including two farms in the study, which were not traditional family farms, allowed for the possibility that corporate farms and managed farms might organise their labour differently. However, within the cases studied there were no obvious differences in decision making between the ownership structures. In fact, intergenerational family labour was still utilised in both these cases.

In Atkinson's (1984) model, family labour plus any permanent employees constitute core labour, while casuals and contractors provide peripheral labour. On family farms numerical flexibility (Seifert & Tangian, 2006) is primarily achieved through the use of family labour and casual labour. Within the farming sample interviewed, wives, children of all ages and parents, plus some occasional input from wider family, provided labour for the busier times of the year, or for particular labour intensive jobs.

Farming is a highly seasonal activity with spikes in labour demand; traditionally dealt with through utilising family labour along with the reciprocal exchange of labour between farms (Brookfield & Parsons, 2007). This method of increasing numerical labour flexibility was used on two of the farms. With increasing pluriactivity there are fewer neighbours available to share farming tasks (Johnsen, 2004; Taylor et al., 2004).

A further factor in labour use is farmer attitude towards risk. Sheep and beef farmers tend to be more risk averse than their dairy colleagues; they try to spread their risks by producing more than one product and to have a stock of supplements available (Morris et al., 1995). Flexible labour use allows them to respond to both volatile competitive markets (Treu, 1992) and to adverse weather conditions. One response to falling prices or a drop in income is to reduce inputs (Coombes & Campbell, 1996; Smith & Montgomery, 2003; Wilson, 1994). For example, it is easier to delay the subdivision of paddocks if the proposed fencing is to be done by a contractor rather than a permanent employee. In addition, all the study farmers had diversified so that none were reliant on sheep or beef only. Since ten of the eleven farmers did make supplements or purchased supplements in dry years, they also aimed to minimize the risk of adverse climatic events.

7.1.2 Family farms

7.1.2.1 Family labour

Family labour was still a vital component of the labour mix on the farms studied in this research. Parental labour was important on five farms for a range of tasks including tractor driving, stock work, child care and book-keeping. Spouses had important inputs; some had equal managerial roles along with significant input into the physical farm-work, while others contributed book-keeping, 'support services' and labour at peak times. Children also made significant contributions. Older children returned from university or off-farm careers to help out, and school-aged children were called on to help with stock work and tractor work. McCrostie Little et al. (1997) had noted in their study on unpaid labour that they were surprised by the high number of adult children who returned home to work on the farm during university holidays. Yet, Johnsen (2004) had commented on the declining involvement of children in her group of farmers, and the constriction of the neighbourhood labour pool. In addition, the McCrostie Little et al. (1997) study also reported that farming parents continued to play a role in the farm business following their formal retirement from the farm. "In New Zealand, 'dad' has every intention of returning to the farm following his retirement" (McCrostie Little & Taylor, 1998, p. 10).

The ageing of the farming population may well result in an increasing use of flexible labour as older farmers pass over the more physical chores (Fairweather & Mulet-Marquis, 2009). Gasson et al. (1988) noted that one of the problems of family labour was the difficulty in using economic rationality when there was a surplus of labour. This was a major contribution to the inefficiency of small farms. This no longer appears to be a problem with the increase in pluriactivity and the use of casual labour. Any surplus family labour can be sent to find work off the farm.

A second way that farmers utilise numerical flexibility is through changing the hours of work to match the labour demands. This technique is so embedded in the farming sector that one farmer expressed surprise and slight outrage when a contractor refused to work on Sundays. Changing hours of work is more suited to family labour rather than employees, who would expect to have defined working hours with overtime paid beyond these.

There has been a falling emphasis on intergenerational succession with farmers no longer expecting their children to continue in farming (Hunt et al., 2006; McCrostie Little & Taylor, 1998). Within the nine family farms studied, three farmers had offspring (sons and daughters) interested in continuing the family farm. Five families either had no children, or children who

were too young for succession to be relevant, and one farmer had adult children, none of whom were currently interested in continuing on the farm.

7.1.2.2 Farming strategies

New Zealand's farming is based on a seasonal pasture-based system that provides its comparative advantage through relatively low cost production (McDermott et al., 2008). While farmers have responded to market signals to produce heavier carcasses over an extended production season, there is a continual drive to raise farm productivity in order to maintain its comparative advantage.

Most of the farmers had increased stock performance over recent years, often reducing stock numbers to do so. This reduced the labour requirements without reducing total production. At the same time, the farmers continued to adopt the 'easy care' physical farm practices identified by Johnsen (2004) as a strategy to further reduce labour inputs. An example of this was Farmer 2 and Farmer 6 with their farm lanes, greatly simplifying stock movements. Farmer 10 had changed his sheep breed to produce an easier mustering animal and had reduced the number of breeds of cattle for easier management. Reducing the sheep to cattle ratio was a common tactic to deliberately take advantage of the lower labour requirements of beef cattle compared to sheep.

Although a farmer interviewed by McCrostie Little et al. (1997, pp. 29-30) had maintained that "it was a physical impossibility for one man to farm 5,000 stock units," Farmer 6 had been farming 6,500 sheep stock units as well as undertaking an on-farm tourist activity, without a permanent worker. He had attributed this to good farm design and a low input system. He did, however, make use of casual labour and contractors. Meat and Wool New Zealand figures show that stock units per labour unit have risen from 1,520 s.u. in 1985-86 up to 2,096 s.u. in 2005-06²⁹, still much below Farmer 6's figure. Likewise, on Farmer 2's farm three workers had replaced eight workers due to technology and farm design improvements. Taylor et al. (2004), when noting the general trend away from permanent workers to the use of casual workers and contractors, had included: improved machinery; changes in animal health and breeding practices; improvements in seed varieties; irrigation systems and the use of computers, as all contributing to the reduced amount of physical labour required on farms.

7.1.2.3 Pluriactivity

The move to off-farm employment by the farmer and his/her spouse that was noted as a response to the 1984 agricultural restructuring, has not been reversed. Taylor et al. (2004) had

²⁹ Figures from Sheep & Beef Farm Survey supplied by Meat & Wool New Zealand Economic Service, 2 April, 2009.

found that the need for the extra income was no longer the driving force behind such employment. Many of those working off the farm enjoyed the non-financial benefits of working in a different setting. Of the nine family farms within this study, four of the farms had family currently involved in some off-farm work. While only one wife had regular work in a nearby town, the others had more irregular work which was related to agriculture; tutoring, working for contractors and sitting on rural committees. Other wives had worked off-farm in the past.

In this sample, on-farm non-pastoral diversification was just as important as off-farm work. Three farms earned substantial income from tourist-related activities, bee-keeping and grape-growing. In one case, the income provided by the wife's contribution had allowed personal farm drawings to remain constant since 1984, by providing the balance. In all these instances, the labour component required was significant, and the farmers had to juggle the management and labour requirements for two or three quite different enterprises.

On a further two farms, the hand-raising of calves was also a move away from the core farm business. In both cases, this was the domain of the female partner and, in one case, was a specific contribution to succession planning. While pluriactivity may have been a means to support otherwise uneconomic farms in some cases, it was also a means of increasing both the income and the wider prospects for the individuals concerned (Rhodes & Journeaux, 1995; Taylor et al., 2004). It also helps farm families' resilience. The results from this study would support Coombes and Campbell's (1996, p. 11) contention that pluriactivity "**may** be a principal component in the future face of rural New Zealand".

7.1.3 Permanent labour

Within this research's small sample of eleven farms, the changing patterns of employment identified following the 1980's deregulation appeared to be continuing, now twenty five years later (Drummond et al., 2000; Fairweather, 1992; Johnsen, 2004; Wilson, 1994). Fairweather (1992) had identified a decline in both permanent and casual labour in favour of family labour. In this study there had been recent reductions in the use of permanent labour (with one exception) but there was no obvious trend towards a reduction in casual labour. When asked about their ideal labour situation, not one farmer suggested they would like to see an increase in permanent farm labour (only an increase in quality) on their property, confirming Wilson's belief (1994, p. 9) that "it is unlikely this trend will be reversed if farm incomes improve".

The literature suggests that employers will prefer to use permanent employees where tasks need judgement, discretion, care and are difficult to monitor (Eswaran & Kotwal, 1985b). It

would appear that these tasks were undertaken by family labour except where farmers had long-term skilled permanent employees, leaving the casual employees with the less skilled, routine tasks. In farming situations, permanent labour tends to be both a 'lumpy' and a heterogeneous resource. Several farmers talked about the problems of utilising a full-time worker in quieter periods. This makes it difficult to match supply and demand. Also, potential employees have widely differing levels of skills and experience (Errington & Gasson, 1994). Stevens et al. (2007) found that sheep farmers indicated a much wider range of employee quality (from 'good' to 'poor') available to this sector compared to other farming sectors. In addition, the marginal return of using extra labour is uncertain, due to the uncertainty in farming relating to the weather and the high price volatility associated with its products (KPMG, 2010). A worker turnover rate of 30.2 percent in the non-dairy pastoral and arable farming sector in the year to September 2008, compared to a New Zealand average rate of 16.8 percent, would indicate that sheep and beef farm workers are more transient than other workers (Agriculture Services Limited, 2010). High labour turnover is a feature of the New Zealand workforce. Peel and Inkson (2000, p. 208) attribute this to an absence of "long-term psychological contracts" (see Section 7.3.2).

One of the deterrents to employing permanent labour is the increasing difficulty of recruiting workers who have a high degree of functional flexibility (Seifert & Tangian, 2006). Farmer 10 recognised that his permanent employee had a wide range of farm skills including the ability to carry out management tasks. At the other end of the scale, Farmer 8 considered his employee to be an unskilled labourer. Several of the study farmers acknowledged the difficulty in finding skilled labour. It would appear that the "widely capable general labour of former times is decreasingly available," not just in New Zealand, but also world-wide (Brookfield & Parsons, 2007, p. 48). This study did not investigate the skills or training of farm workers as it was beyond the boundaries of this research. This area has been investigated recently by Murray (2006).

There were other reasons for the move away from permanent employees beyond the mere flexibility in employing casual workers. One of these factors was the supervision cost required for an unskilled permanent employee identified by Eswaran and Kotwal (1985a) and certainly recognised by Farmer 8 with his two unskilled workers. Stallard (1998, p. 457), in his study on farmer compliance with the HSE Act, notes that "taking responsibility for unpredictable behaviour of employees is a real disincentive to employ anyone". Lovelock and Cryer (2009) have also observed that the farmers in their study reported a shortage of skilled labour. This shortage results in the increased risk of injury to people new to farming, as well

as to some of the young local employees who lack motivation and/or the necessary farming skills.

Other farmers mentioned the problem of finding suitable work for permanent employees during down times on the farm. One farmer indicated that this created extra direct monetary costs in having to resource jobs created specifically in order to keep workers busy. Collins and Krippner (1999, p. 513) point out that “the success of agricultural production systems has depended on finding ways to mobilize labour for crucial tasks at the right time, and to sustain that labour through lean periods when there is little work to be done”. Using contractors and casual labour means that the lean periods are no longer the farmer’s problem. Brookfield & Parsons, (2007, p. 48) had noted that the “permanent employment of unskilled labour could only be economic to farmers who had a year-round mix of activities”. Even those farmers with more skilled permanent employees still utilized the flexibility of casual labour to smooth out the ‘lumps’ in labour requirements.

McCrostie Little et al. (1997, p. 30) had found their respondents wanted labour to be both ‘skilled and mature’ because of the implications of OSH, particularly when handling large and expensive machinery. Farmer 8 had also made this point when talking about using contractors for tasks requiring machinery use, rather than his young unskilled employee. Furthermore, farming is more complicated than most employment situations in that accommodation, power and telephone are often part of the employment package, as well as other non-monetary ‘perks’ such as a vehicle for private transport use, dog food and home-killed meat (Federated Farmers of New Zealand & Rabobank New Zealand, 2010).

Jarvis and Wilkinson (1998), Tipples (2005) and Tucker (2002) all suggest that legal and regulatory rights that impose costs on employers may act as a deterrent to the employment of permanent farm workers. These costs include: statutory holiday pay, sick pay and four weeks’ holiday pay; ACC contributions and the administrative requirements of PAYE, Health and Safety policies, employment contracts, job descriptions and orientation programmes for new employees. “Complying with employment legislation is one of the most significant areas of statutory compliance for New Zealand farmers” (Tipples, 2005, p. 189).

Silcock (1997) calculated that for every hour of productive work, the employer was actually paying around one and a half times the gross payment to an employee. He based his calculations on the above legal compliance costs, but also took into account supervision costs and the unproductive working time, which covers such things as the time between jobs, tea breaks, training, travel time and rests. As this calculation was for the horticultural industry it

did not include items such as 'free' meat or dog food, or the costs and time associated with providing worker accommodation. Furthermore, if employees have to be replaced, considerable transaction and training costs are incurred, as well as the possibility of a personal grievance procedure based on the Employment Relations Act 2000. Silcock's calculations take no account of the expenses such as the fuel and fencing equipment needed to provide work during down times, and are out-dated. It would be valuable to carry out similar up-to-date calculations for sheep and beef farmers' employment costs.

Such calculations cannot include the added stress created by some employment relationships (Nettle, Paine, & Petheram, 2005). The stress factor can deter some farmers, for example Farmer 1, from even considering taking on a permanent employee. Silcock's calculations do not take account of the costs an innovative farmer might use to raise his employee's motivation levels, through supporting equity growth through land or stock acquisition, or investing in training (Speight, 2005).

7.1.4 Casual labour

Robertson et al. (2007) point out that casualisation of employment in neo-liberalised economies is reinforced by the seasonality of farming, while Tucker (2002, p. 39) suggests that smaller firms have to use casual staff as a matter of financial survival, as "the only option for responding to changing demands in the future". Casual workers are "those workers who are not eligible for the benefits of the standard worker because their employment has no certainty of on-going employment" (Spoonley, 2004, p. 9).

Within this study, nine of the farmers utilised some casual labour, while neighbours provided a 'casual' labour supply for another farmer. The eleventh farmer had a Gateway student who could be hired as a casual labourer. Since the local labour market is an important source for such casual labour (Coombes & Campbell, 1996), it might have been expected that the geographical situation would be a major determinant for the use of casual labour. There was, however, no obvious connection between location and casual labour use. These farmers' casuals were either other farmers or farmers' sons from smaller farms or on a different type of farm; rural contractors in their off-season; retired farmers or students. This reinforces the views of Taylor et al. (2004) and Rhodes and Journeaux (1995) that farmers involved in pluriactivity are often engaged in agricultural work. They could not be considered 'precarious' in any sense (Tucker, 2002). Such work creates a mutually beneficial relationship that provides farmers and contractors with an out-of-season income or a second income. This

is more closely allied to the “free agent” perspective of Kunda et al. (2002), although casual farm labour may not necessarily be highly skilled.

Farmers appreciated the flexibility that casual workers offered and were able to find workers with an appropriate skill level for their needs. As one farmer pointed out, he would rather pay \$25 an hour for a defined job that achieved exactly what he wanted, than deal with the problems and costs associated with a permanent employee. Lee (1996) also suggested that the increased government regulation of labour markets has had the effect of increasing the cost of employing permanent workers relative to the cost of employing temporary workers. One farmer went a step further by paying casual workers cash in order to reduce costs. An investigation into the tasks that casual labour is employed to complete would reveal further insights as to how farmers make their employment decisions.

7.1.5 Rural contractor use

Anecdotal evidence plus expenditure of 15 to 45 percent of operating costs by the surveyed farmers on contractors indicates the significant role contractors play in agriculture. Most sheep and beef farmers would spend a significant proportion of their operating costs on rural contractors today. According to Peel and Boxall (2005), it will be more efficient to use contractors where work is dominated by generic skills, easily specified and measured and infrequently needed. While this is true for some contracted work, other contractors offer specialist services that are outside the skill set of the farmer or average farm employee, such as shearing and scanning. Few farmers would have the range of equipment or the skills needed to be completely self-reliant. Furthermore, there was a positive but weak relationship between the number of stock units per full time labour unit, and expenditure on contracting, indicating that there is a degree of labour substitution in employing contractors (Ko, 2003). This indicates that contractor use may partly compensate for the reduced use of permanent labour.

The reasons for using contractors come into three main categories. Firstly, there are those tasks that most farmers would not consider doing themselves, such as livestock transportation and cartage, aerial spraying, scanning, shearing, veterinary requirements and accountancy. A study on rural transport gave a conservative estimate of 234 million kilometres a year associated with agriculture (Saunders & Zellman, 2007). Considering outputs and only four farm inputs; fertiliser, chemicals, veterinary supplies and seeds, each sheep and beef farm required 4,869 km of rural transport annually. On this basis sheep and beef farms used 59

percent of rural transport (South Island sheep and beef farmers used 24 percent), representing 11 percent of annual per farm operating costs (Friedlander, 2008).

Secondly, there are the jobs that farmers could do if they were prepared to purchase the equipment and gain the skills required. These jobs include balage and silage making, crop harvesting, hedge-cutting, fertiliser spreading, spraying and some cultivation tasks. Overall, the farmers interviewed preferred to use contractors to carry out these tasks because they offered modern equipment, along with skills honed from using this equipment regularly. In some cases, the use of the labour unit that came as part of the contracting package was also valued by the farmer. The alternative was to have considerable investment tied up in expensive machinery that requires maintenance but is not used regularly. Machinery cooperatives, such as the one Farmer 11 was a member of, are an alternative, but these would still under-utilise the machinery.

Finally, there were the tasks that farmers could carry out themselves, such as fencing or ground spraying of weeds. In certain situations farmers will employ contractors to carry out these tasks. Due to their specialisation, contractors can work more efficiently than the farmer, as explained by Farmer 8's use of his gorse spraying contractor. Some farmers had made a decision to invest in the less expensive items such as sheep dipping equipment or spraying equipment, while others considered it better to leave the handling of chemicals to contractors. Gandonou, Dillon, Stombaugh, and Shearer (2001) carried out a study in the USA to produce a break-even acreage decision tool that allowed farmers to determine when to use contractors, and when to purchase their own precision agricultural equipment. The New Zealand farmers surveyed used very basic calculations for their equipment purchase decisions. Overall, it appears that contractors can be a substitute for permanent or family labour but are more frequently complementary to it (Ko, 2003).

Figure 7-1 offers a diagrammatic overview of the range of factors that influence a farmer's decision as to whether he will employ a contractor or carry out the task himself. The farm's physical format, labour availability and the farmer's personal skills, preferences and management style will all affect his decision, along with the availability of suitable contractors. In more remote areas, such as the West Coast, farmers are much more self-reliant when compared to Canterbury or Southland.

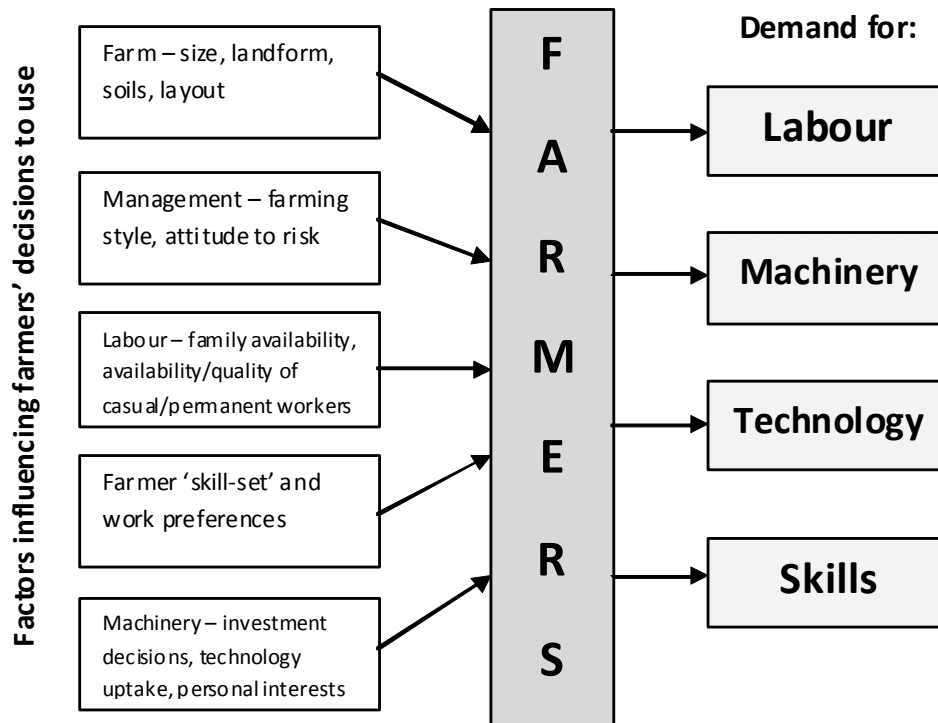


Figure 7-1 Factors influencing farmers' decisions to use contractors

With the increasing diversification on these sheep and beef farms into dairy support, calf-raising, stud breeding, forestry and bee-keeping, along with the other non-agricultural activities such as tourism, the farmers were having to spread their skills wider. Butson (2008) notes that increasing farm size and complexity has increased the demands on farmers' skills in staff management, strategic planning, financial planning and monitoring and trading decisions. In addition, they also faced increasing compliance requirements. At the same time, farm tasks such as stock breeding and nutrition, spraying, fertilizer application, forage making and cultivation also require a greater depth of knowledge. The farmer has to provide both management and labour in a family business. Management is considered to be a key determinant of a successful business (Gasson & Errington, 1993). It seems, therefore, logical that the farmer will focus his time and energy on doing what he enjoys and does best. The farmers in this study all showed passion and enthusiasm when talking about their stock; this was the aspect of farming that appealed to them. Thus, using contractors for many farm tasks was a rational decision.

Martin and McLeay (1998, p. 232) suggested that problems with hired labour and contractors were “important sources of risk”. Yet, when asked what impact the use of contractors had on their risk, the farmers tended to see their use as risk-minimising rather than risk-increasing. Several considered the financial risk of having money tied up in plant and machinery that was seldom used, alongside the fact that contractors supplied better machinery plus the specialised skills needed to operate it. Some considered there was a risk reduction in being able to employ a contractor for a specific job at a specific time, instead of having to “get around to it” or not be able to “do everything yourself”. There were two main risks identified with contractor use. One was the timeliness issue of a contractor not being able to carry out the task when needed, although weather can still work against a farmer doing the job himself. The other risk was of the contractor not having the expertise or equipment to do the job well. There had been very few examples of this because the farmers surveyed used their local network to check contractor quality, and then built up good relationships with the ones they chose.

The literature suggests that there is a relationship between permanent labour and innovation (Michie & Sheehan, 2003). In the farming situation this may be true to a certain extent, but the utilization of flexible labour through contractor use does allow farmers access to technology that individual farmers could not afford. Farmer 11 claimed that farmers must end up paying more by using contractors as “they have to get a return on the machine plus they need to make a profit”. She had failed to take into account that contractors can complete the job more efficiently, and therefore more cheaply, than the farmer. Contractors’ skill levels and ability to up-date machinery gives them an advantage over the average sheep and beef farmer.

Stevens et al. (2007) had asked farmers who was responsible for a wide range of jobs on their farms. While contractors had a significant role on both sheep and beef farms³⁰ (but not on deer farms), it would appear that their contribution had been understated. For example, on the sheep farms, only 21 percent indicated that contractors were used for ‘operates tractors, tractor drawn machinery, and self-propelled machinery to plough, harrow and fertilise soil, and plant cultivate, spray and harvest crops’. This appeared to be the only category available to select for forage making activities. Anecdotal observation, along with discussions with farmers and contractors, would indicate that more than 20 percent of sheep and beef farmers use contractors to make forage. However, the study of Stevens et al. (2007) does give some indication of the importance of casual labour. ‘Casual worker’ is indicated as having

³⁰ The study of Stevens et al. surveyed sheep, beef and deer farmers as three separate categories covering lifestyle blocks through to very large farms, but many of these farms were actually mixed farming operations.

responsibility on some farms for 19 from a total of 39 farm tasks. This would suggest that some casual workers on farms are skilled enough to take on considerable responsibility.

7.1.6 Conclusion

The trends identified following the events of the 1980s do not appear to have changed to any extent. From this study, family labour is still the heartbeat of the farm. Permanent labour, while important on larger farms, is too problematical for many farmers. Considering the deterrents in employing permanent labour, along with the fact that none of the farming sectors canvassed in the 'Career and training pathways' study (Stevens et al., 2007) believed there would be any improvement in labour availability over the next 10-15 years, it would be expected that sheep and beef farmers are unlikely to significantly increase their use of permanent labour in the immediate future, except to cope with increasing farm size. On the other hand, the use of casual labour is an essential feature of farm labour flexibility. Rural contractors also have a vital role to play in allowing farmers to minimise their financial investment in machinery, while still allowing them to access the latest technology.

Contractors provide an array of skills that is becoming increasingly wider as farms become more complex enterprises (KPMG, 2010). At times contractors also provide a source of extra farm labour. This suggests that the use of casual labour and rural contractors will continue to play an important role alongside family labour in the labour mix used on the sheep and beef farms studied. It would appear that rural employment will not return to the relatively homogeneous structure of the pre-deregulation days (Coombes & Campbell, 1996). Further research is still required on why farmers use contractors; how they decide what value their own labour has, when they should buy machinery rather than engage a contractor, and where their own skills should be used.

There is a growing professionalism in farming, evident even within this small sample group. Farmers are much more business-like, maintaining cost structures that reflect the earning capacity of their farms (NZ Agritech, 2008). They still value the social status, personal satisfaction and independence that farming offers (Hunt et al., 2006). The previous features of the family farm: cheap family labour; a willingness to accept a low standard of living; the lack of a clear division between leisure and work; are probably no longer so essential to the survival of the family farm as in the past (Gasson et al., 1988). Now, the keystones for survival may be the ability to be flexible in terms of input use, particularly labour use; farmer willingness to respond to changing social, economic and physical environments; and the ability to manage complex, multi-dimensional enterprises. In addition, "The ability of family farmers to innovate and to adapt, often as industry leaders, remains as important as ever"

(Brookfield, 2008, p. 120). There will be an increasing reliance on a diversified rural economy to provide family members with alternative job opportunities. It is probable that the farming community is moving closer to their urban counterparts with respect to their social and economic ambitions (Taylor et al., 2004). Farmers' own diversifications will help to provide these opportunities, but the rural contractors also have a role to play, as will be discussed in Section 7.3.3.4.

To conclude, this section on how sheep and beef farmers decide on the particular combinations of labour they use, reinforces the findings of previous research on the use of labour on sheep and beef farms in terms of the use of permanent, casual and family labour. It also raises awareness of the growing importance of the rural contractors and the role of pluriactivity in flexible labour use. The use of contractors and casual labour does provide farmers with much greater opportunities to externalize labour in order to gain numerical flexibility (Kalleberg, 2001).

7.2 What Influences the Ability of Contractors to meet Farmers' Needs?

7.2.1 Introduction

While there are many factors influencing contracting businesses, this question focuses on the issues that contractors themselves identified as affecting their ability to meet farmers' needs. The wider economy has a vital impact on contracting businesses in the long-term but exploring this impact was deemed to be beyond the boundaries of this research. Figure 7-2 shows the main factors affecting business viability and their interconnections. Each of the factors is discussed in turn in this section.

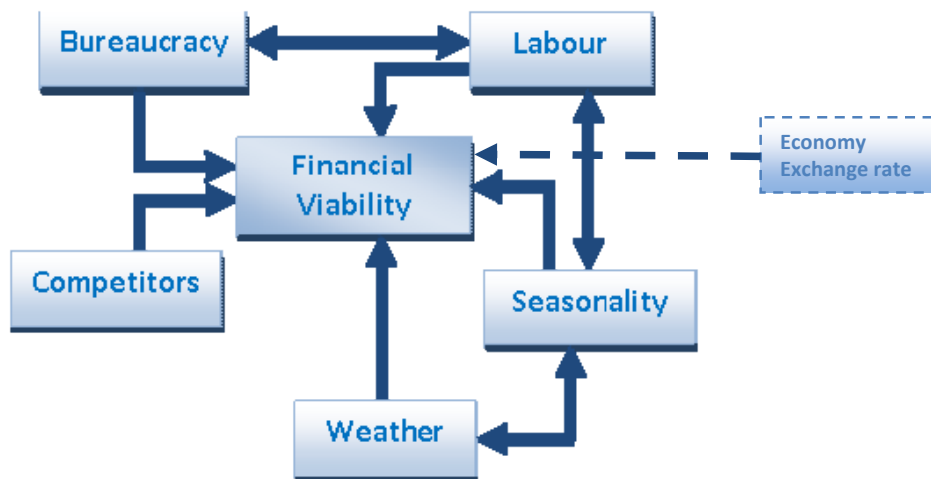


Figure 7-2 Factors influencing contractor ability to meet farmers' needs

Section 7.2.2 considers the whole contractor workforce, both employers and employees. Employees are broken into three groups: permanent, seasonal and casual employees. Sections 7.2.1 to Section 7.2.7 cover weather, competitors, financial viability, seasonality and bureaucracy respectively, while the final section looks at the role industry associations play in the contracting industry. The conclusion to this section is incorporated into Section 7.3 to avoid overlap.

7.2.2 The contractor workforce

7.2.2.1 The contractors

Most New Zealand contractors paralleled the farming sector in that they are often family businesses with very close connections to the land. The survey results, the interviews and the profiles of farmers in the Rural Contractor and Large-scale Farmer Magazine³¹ show they are predominantly the sons of either farmers or rural contractors, or otherwise have a rural upbringing. Some farmers do become contractors and some contractors do become farmers. In addition, farmers may work for contractors and contractors and their employees may work for farmers in the off-season.

With the growth of the contract labour sector over recent years much research has been carried out on the reasons for contracting and the advantages and disadvantages to those involved. In general, contractors are either highly skilled and have the option of employment or contracting, or are unskilled with few choices (Firkin et al., 2003; Kritzinger et al., 2004; Kunda et al., 2002; Tucker, 2002). Those with the freedom to make the choice to change to contracting are attracted by the opportunity of becoming their own boss or owning their own business; making more money; having a more flexible lifestyle; or avoiding the bureaucracy and politics of the workplace (McKeown & Hanley, 2009).

Apart from two of the contractors, those interviewed did not actually make deliberate choice to become contractors. They either eased into contracting over time, or ended up there through family circumstances. Those who were farming may have been asked by neighbours to build a fence or spray some thistles, or to have worked for a neighbour to justify a machinery purchase. They gradually increased the amount of time spent contracting. Hence, they did not necessarily enter the industry as highly skilled workers, but gained their skills on-the-job. Due to its seasonal nature, rural contracting certainly could not offer a flexible

³¹ Each issue usually profiles three contractors. A perusal of 35 recent profiles revealed that close to 80 percent came from a farming background and were family-run businesses.

lifestyle as an inducement. The down period over winter offers minimal compensation for the long summer hours. Those in the agricultural contracting sector may be drawn there by their passion for machinery. Two of the contractors had purchased farms, so it is possible that contracting can be a way into farm ownership.

7.2.2.2 The employees

As with most rural sectors, finding suitably skilled labour has been, and still is, a concern for rural contractors (Potter, 1985). The agricultural contracting industry suffers from a similar perception to employment in agriculture generally (Stevens et al., 2007). Relatively low pay rates, long hours of work and the need to live in the rural community, do not enhance the industry's image. Little has been done to promote the benefits of working in an industry which offers sophisticated machinery, varied day-to-day work, a scenic outdoors environment and transferrable skills that can be used globally. Verifiable skills could be gained through the uptake of formal on-the-job training. Industry promotion was recognised to require a long-term strategy so could be added to the services provided by the industry associations (See Section 7.2.8). While retention was seldom mentioned as a problem, most contracting sectors had labour supply and demand problems. Finding suitably skilled labour was frequently cited as a significant issue.

Labour can be divided into three groups: the permanent or core employees, then the two peripheral groups of the seasonal workers and the casual workers (Atkinson, 1984).

Cultivation, spraying, fertiliser application, forage making, scanning and shearing are all seasonally based so often require a seasonal workforce. Fencing is one sector which is less seasonal. This seasonality creates significant problems.

Depending on the size of the business, the amount of peak season work it does and the diversity of its services, contractors have the option of retaining their (permanent) workers over the winter period, or saving on winter employment by relying on seasonal workers (Collins & Krippner, 1999). The arguments for retaining workers are: the significant savings in training and supervision costs (Eswaran & Kotwal, 1985a); workers becoming more skilled; and customers preferring to have the same worker regularly. However, this means that the contractor needs to find work to keep his employees productive over the off-season. These contractors tended to develop diversification opportunities, such as hedge cutting and balage wrap disposal, which extend the work season by utilising their existing pool of skills or resources. Some contractors build or adapt their own machinery, so value an employee with engineering skills. Employees can also assist with the machinery repairs and maintenance carried out over the winter.

Permanent employees

There is a shortage of suitably skilled people with the right attitude wanting to work in the contracting industry. The different sectors tend to face different problems. Many of those interviewed were in businesses that had been in existence for over 15 years and so were well-established and well-known. Potential workers often hunted these out. These workers were more sought-after than those who responded to advertisements, because their initiative was an indication of a good attitude and work ethic. Morriss et al. (2001) found that the most important skills for the employers in their study were the un-teachable generic skills of good work ethics and attitudes, and honesty. For the contractors, commonsense was deemed to be a key quality, as people with commonsense could be relied upon to work more safely and solve problems. Employees were expected to have a high commitment to doing a good job, show initiative, and a fair degree of autonomy. When working on farms the employee is often unsupervised. A rural background was usually considered to be essential, as such people would be able to relate better to clients, and to have knowledge that would help in their jobs, such as being able to recognise different plant species or wet patches in paddocks.

For the cultivation, spraying and fencing sectors, staff could be trained on the job to the standards set by the contractor. Those working for spraying contractors needed to gain their Approved Handler and/or Growsafe qualifications. The fencing and cultivation contractors both had strong workplace cultures where qualifications and training were valued. As in many small businesses, most of the other contractors had a preference for informal on-the-job training (Billett, Hernon-Tinning, & Ehrich, 2003). Workers gained the appropriate task skills while working under the supervision of more experienced staff, but one contractor also considered excellent communication skills to be a high priority. Multi-skilled workers were appreciated for their functional flexibility as they could help with engineering or mechanical work over the off-season.

“Agriculture is increasingly becoming a computerized information based industry” (Gandonou et al., 2001, p. 1). There was disagreement over whether a disparity existed between the people who were attracted to the industry and the technological know-how that is now required. Some believed that many workers did not have the skills to fully utilise the capabilities of the machinery, while others felt that the new technology was relatively easily learned and applied by their workers.

The transport sector short-listed their applicants according to experience, qualifications (driving licences) and their willingness to live and work in a rural setting. They were reluctant

to entrust half million dollar rigs to drivers without suitable experience and aptitude. The large operator considered it essential for his workers to live in and support the local community, while the smaller transport contractor wanted his workers to be 'user-friendly'; able to remain calm and polite under stress. Previous experience handling stock and driving with a trailer were essential skills. Willingness to be adaptable in order to increase functional flexibility was a desirable attitude (Kalleberg, 2001). For example, in the large transport firm, managers became drivers when required.

The aerial sector is a sector people want 'to be in' so there were plenty of possible job candidates available, but there was a shortage of pilots with suitable experience and 'aptitude'. Finding appropriate ground crew was easier.

Pay and working conditions varied widely. Transport drivers appeared to have relatively high rates of pay; one transport contractor paid overtime while the other paid a flat rate where 40 hours were guaranteed, whether drivers had to work or not. Finemore and McAllister (1999) identified the problem of paid workers having their social and family lives disrupted due to the long hours in harvest seasons. There was evidence of some contractors recognising this as a problem and trying to ensure that workers had regular time off, usually on a Sunday, but this was not always possible. The aerial contractor had very flexible conditions for their employees; if there was no work they did not necessarily have to be on-site. One of the machinery suppliers believed that pay rates for machinery drivers were low in relation to the skills required. Research into the work conditions of contracting staff would help to identify how the industry could be made more attractive to potential employees.

Seasonal labour

Unlike permanent labour, it is important that seasonal labour comes with existing skills and experience. They need to be productive immediately; there is little time for training once the harvesting season starts. Ideally, they need to have worked in a contracting environment so that they understand the work pressures associated with the weather.

As Tipples, (2008, p. v) points out "One of the attractive features of shearing work is the globalisation of the labour market, with the possibilities of alternate seasons shearing in Europe and Australasia". It is this globalisation of the agricultural contracting labour market which provides much of the skilled seasonal labour force for the cultivation, harvesting and forage making sectors. Workers from Europe are able to come to New Zealand in their off-season and, with some adaptation to New Zealand conditions, use their expertise to operate expensive machinery. This provides a pool of labour that can be trusted to operate expensive

and specialised machinery safely (Finemore & McAllister, 1999). The appearance of labour recruitment websites³² is evidence of the growing importance of this particular labour market. However, it does raise concerns in some contractors' minds as to the prudence of developing an industry too reliant on skilled overseas labour, at the expense of trained local labour. With little recognition of formal skills gained through New Zealand's ITO scheme, this system is likely to remain. The remaining seasonal labour force comes from students, and from locals within a region such as lifestylers, who may also provide casual labour.

Internal functional flexibility was a desirable feature in workers and they were often trained to be able to use a range of machinery. Forage contracting and harvesting, in particular, are good examples whereby internal numerical flexibility is gained by working extremely long hours (Seifert & Tangian, 2006). Few employers offered overtime for these hours; the long hours themselves were considered to be the reward.

Casual employees

Casual employees were valued as being able to provide the numerical flexibility to cope with peak demands or to cover for permanent employee absenteeism. The well-established contractors appeared to have a supply of casual employees, who were mainly farmers, farmer's sons or retired farmers, or employed people who worked at weekends. These people would have sufficient skills, needing little in the way of training, and would be highly flexible and adaptable.

7.2.3 Weather

In the short term, the weather has a profound influence on profitability and cash flow for many contracting sectors. The "vagaries of the weather" determine whether a season is successful or not (Potter, 1985). Good weather produces surplus feed for harvesting and good crop yields resulting in work for contractors. Poor weather, on the other hand has a range of effects. Rain or wind prevents any spraying from being carried out. Excessive or prolonged wet conditions inhibit shearing, cultivation and crop or pasture harvesting. Fencing may not be able to be carried out in wet weather. Drought conditions limit pasture and crop growth, and the subsequent reduction in production affects most contracting sectors. If lambs have to be sold as stores, this can change cartage patterns for transport operators.

³² See for example <http://www.hanzonjobs.co.nz/> which "specialises in finding the best match possible between the aspirations of machinery drivers and agriculture workers from abroad and the requirements of contractors and dairy farmers throughout NZ".

Since neither contractor nor farmer can change the weather, it is the strategies that contractors and farmers use to cope with climatic conditions that are of interest. Contractor diversification across farm types, plus non-pastoral work, spread the weather risk. Diversification across different service sectors is another risk-reduction strategy. Forage Contractor 2 is reliant on forage harvesting and straw baling in a primarily arable and sheep and beef area. A drought in his area, where irrigated farms are less common, is much more serious for him than for Ag Contractor who provides a wide range of services across dairying, arable, and sheep and beef.

Changing technology can also influence weather effects over the longer term. For example, new plant breeds may be more productive under dryland conditions producing greater quantities of forage. Cultivation techniques have changed with a greater emphasis on minimum tillage, providing more work for spraying contractors. The advent of balage and silage encouraged higher levels of pasture conservation in high rainfall areas such as Southland and the West Coast. Changing farm types also change the impact of the weather. Irrigated dairy farms are much less affected by drought than the non-irrigated sheep and beef farms they replace.

Weather affects more than just profitability and cash flow. Periods of inclement weather often result in contractors having to work longer hours once the weather clears. This has implications for breaking the work time rule where trucks are involved, and may result in fatigue and a higher risk of accident. It is also disruptive of work life balances. Road transport and agriculture are industries with both high numbers and high proportions of workers working long hours (Fursman, 2008).

7.2.4 Competition

As identified in the similar sugar harvesting industry in Australia, where contractors have high investments in machinery, business competition is fierce between contractors in the same field (Finemore & McAllister, 1999). It appears that this competition is a problem across all contracting industries. Competition forces prices down, so that profit margins are trimmed and, in the aerial sector in particular, safety is compromised. For example, cost-cutting by pilots chasing work means that the profit margin is too small to allow timely replacement of planes and helicopters; thirteen topdressing pilots had been killed between 2000 and 2009 in New Zealand (van den Bergh, 2009). This competition generally comes from people entering the industry, often on a part-time basis or subsidised by another enterprise such as a large-scale farm. The true long-term costs of replacement, repairs and maintenance, and dealing with seasonality are not fully considered, allowing new contractors to offer prices which

undercut the existing long term contractors. In addition, these new business entrants may not be conversant with the health and safety requirements of the sector. As health and safety is both a time consuming and expensive cost for businesses with employees, some of the existing contractors were resentful when they saw new entrants not working to similar safety standards.

Both farmers and contractors labelled these new competitors as ‘fly-by-nighters’ or ‘cowboys’ but it is doubtful that new competitors actually entered the industry on a ‘get rich quickly’ basis. Quality of service, and the ability and willingness to back-up the quality of a job, were considered to be compromised by such new entrants. Some may not have public liability insurance. The interviewed farmers were very aware of the problems associated with new competitors, although in one instance the farmer considered that they prevented existing operators from over-charging. A good reputation was the most important criterion for farmers choosing a new contractor, and good reputations could only be gained over time from delivering a high quality service.

At least four of the interviewed contractors had themselves entered the industry by starting out small in their local area. Some had initially identified niches, but had eventually become competitors to the existing contractors. “The strategy for niche market development suggests that SMEs seek to strongly differentiate themselves from each other ... this places a heavy emphasis on the confidentiality of their transactions ...” (Bennett & Ramsden, 2007, p. 52). Buying an existing business does not cause the same problems.

7.2.5 Financial viability

This project did not set out to determine what influenced a contractor’s financial success, and there appears to be no literature to provide guidance on this aspect of the rural contracting industry. Such literature covering SMEs would be too broad to advance knowledge of contracting profitability.

All those interviewed had widely differing approaches to pricing their services. Most charged on a per hectare basis, although costing calculations were worked out on an hourly basis. One contractor had made a move towards a user-pays approach for wear and tear. Such pricing has been met with farmer resistance in Finland (Palva, 2007). Costing links into the ‘value for money’ issue, seen as a significant problem by many contractors. This will be further discussed in Section 7.3.2.

There appeared to be a high level of customer focus to provide a good service and a quality job. Establishing a good reputation was ascertained to be essential for remaining in business. There was very little emphasis on marketing. No mention was made of how contractors controlled costs, and machinery replacement tended to be carried out on an ad hoc basis rather than through a plan, although the Commerce Commission (2004, p. 9) noted that “demand for tractors is positive to customers’ incomes, the exchange rate and the price of steel”. The larger businesses tended to appear to be more aware of their compliance requirements and to have formalised procedures and systems. One of the larger businesses was ISO9002 accredited, while two of the smaller businesses had engaged a business consultant. In some of the smaller businesses, the contractors were conscious of the fact that they were tending to work ‘in their business’ rather than ‘on their business’ (Butson, 2008), a problem identified as being relatively widespread by both the machinery suppliers. However, the contractors were not asked about their strategic planning or about their business practices in general.

This is an important area for future research; what are the features of successful contracting businesses? In 2008-2009, the New Zealand Master Contractors Incorporated³³ undertook a workplace productivity project in partnership with the Department of Labour, focusing on the seven drivers of workplace productivity (DoL, 2009). This project could provide a framework for future research on productivity. In addition, the New Zealand Business Benchmarking Survey carried out by Waikato University in conjunction with MYOB³⁴ provides comprehensive financial reports for many industry sectors. These reports include: 35 financial ratios; aggregate results for the business classification as a whole plus breakdowns based on total income; net profit/working owner and location; a range of industry results using percentiles; and the results of the three best performing firms based on net profit/working owner. The benchmark results are based on the ANZSIC 2006 classifications, of which ‘Shearing’ is a separate classification but other contractors are all included in “Other Agricultural and Fishing Support Services”. However, the benchmarking survey has created a custom class for Agricultural Contracting which could be used as a basis to evaluate contracting profitability in future research.

7.2.6 Seasonality

The seasonal aspect of rural contracting impacts primarily on labour, resource utilisation and cash flow. Its effects on labour have been discussed in Section 7.2.2. The difficulty for

³³ These are contractors providing labour for the horticultural industry.

See <http://www.mastercontractors.co.nz/about/>

³⁴ Provider of accounting software – see <http://myob.co.nz/>

farmers to fully utilise expensive machinery needed on a seasonal basis only, is one of the reasons for the growth in rural contracting (Ball, 1987; Igata et al., 2008; Potter, 1985). Within the interviews little mention was made of resource utilisation. Several contractors admitted that they were over-resourced, but felt this enabled them to meet the high demand periods of work. One contractor talked about being able to use the same tractor for both inter-row clover spraying over the summer and hedge-cutting over the winter. Chemical Applicator offered complementary services of crop spraying over the growing season and sheep dipping over winter, thereby better utilising both labour and trucks.

Only one contractor mentioned cash flow, and this was in conjunction with weather rather than seasonality. Since most contractors have a farming background, managing finances with a sporadic cash flow is likely to be second nature. A contractor's cash flow is more stable and consistent than a farmer's cash flow; for some farmers this contributes to their decision to go contracting.

In Australia, rural contractors have the ability to increase the length of their season if they are prepared to travel. Grain harvesters start work in the north (Queensland) and the machines follow the season southwards³⁵. A similar system works for custom combiners in the USA; these start in Texas and work north into Canada (M. Painter, personal communication, July 17, 2010,). However, New Zealand is not big enough for such a tactic to be implemented, and it does involve extra social and economic costs.

The strategies to cope with seasonality that a New Zealand contractor uses are the same as those he employs for dealing with poor weather. Diversity of both clients and services can help to spread the workload out longer. However, there are certain sectors which cannot overcome the problems with seasonality through diversification, such as shearing, scanning, forage harvesting or other harvesting specialists. For these contractors, seasonality is just a part of their business.

7.2.7 Bureaucracy

Both the surveyed contractors and the interviewed contractors identified increasing bureaucratic requirements as impacting on their businesses. There were two main areas of concern. One was the health and safety requirements related to employing people, and the high risk of working in an unknown environment (clients' farms) over which the contractor has little control. This aspect is covered more fully in Section 7.3.2. The other main area related to the regulations governing the use of large machinery; the work time rule, the

³⁵ From Employment Specialist's personal experience when working in Australia.

driving licences required for particular vehicles or machinery, the licencing required for the vehicles themselves and the rules regarding their operation on public roads. “The reality of day to day business is that compliance requirements continue to increase regardless of the best intentions of the government and regulators” (KPMG, 2010, p. 25).

Louisson (2001) discovered that the majority of small businesses³⁶ do not understand their environmental, safety and health protection responsibilities. Given that these responsibilities are covered in 63 environmental and safety statutes, covering almost 40,000 pages of legislation³⁷ and are administered by 11 different Government agencies (and not including transport legislation), it is not surprising that contractors struggle with their bureaucratic requirements (Louisson, 2001). He believed that it is “beyond the capability of small businesses to assess what law is applicable to their operations” (p. 59), particularly given that their primary job is working in their business. Louisson’s research indicated that the best method of getting the correct information out to small businesses was through their industry associations. As the majority of those interviewed confirmed, their industry association newsletters do try to provide information on the up-dates in legislation. However, given that the RCNZ believes its members represent around ten percent of possible membership, there are likely to be many contractors who are unaware of all of their legal responsibilities. The New Zealand Agricultural Aviation Association has a much higher membership, estimated to be close to 90 percent of the capacity³⁸. This level reflects the importance of complying with legislation in a high risk industry. Other association memberships are likely to fall in between these figures; the higher the membership levels, the more effectively changes in legislative requirements will be promulgated to contractors.

Firkin et al. (2003) had also noted the deterrent of legislation to running a small business. A lack of flexibility in legislation indicated that small contractors saw it as being tailored to large businesses. The administration of the Goods and Services Tax was deemed to be time-consuming and the Employment Relations Act (2000), Occupational Health and Safety, and Accident Compensation Corporation were all seen as hindering the employment of workers.

In an effort to help rural contractors comply with the law, the New Zealand Transport Agency (NZTA), in collaboration with the Agricultural Transport Forum³⁹ (ATF) and the New

³⁶ Defined in his study as ‘ five or fewer full-time workers’.

³⁷ *Making sense of the red tape*. (2010, May 29-30,). The Press, p. H1.

³⁸ According to Aerial Contractor

³⁹ ATF comprises representatives from Rural Contractors New Zealand, Horticulture New Zealand, Tractor and Machinery Association (TAMA), Federated Farmers New Zealand, and New Zealand Agricultural Aviation Association (NZAAA).

Zealand Police, published a 60 page Agricultural Vehicles' Guide⁴⁰ in 2009. The Guide is based on the legal requirements but refers users to the legal references for more complete information (NZ Transport Agency, 2009, p. 4). The contractors reported confusion about interpretations of the legislation by both the New Zealand Police and the New Zealand Transport Agency.

KPMG (2010, p. 8) point out the current government does acknowledge this problem, and that “rapidly removing regulation and compliance requirements that add little or no value has the potential to unleash the growth potential in the [agribusiness] sector”. They believe that the challenge facing any business is managing this compliance burden in such a way as to prevent it from becoming a deterrent to a successful operation.

7.2.8 Associations

While a contractor gains autonomy by setting up his own business, one of the resulting costs is isolation. There is a need for occupational networks to meet some of the needs that employing organisations usually meet, such as training, networking, access to new technology and techniques, and socialising (Kunda et al., 2002). “Collaborations and associations were extremely important for contractors” reported Firkin et al. (2003, p. 122). There is currently no association for scanners in New Zealand as it is a tiny sector. Yet, there is already a move among operators to try to raise the standards in the eye-muscle scanning sector (Cronshaw, 2009). Of the remaining ten contractors, only one did not belong to a relevant industry organisation, preferring local networking.

A survey undertaken in the UK found that close to 75 percent of small and medium enterprises (SMEs) belonged to at least one trade or professional association (Bennett & Ramsden, 2007). Business associations can help to improve economic performance: through enhancing the competitiveness of their members; by acting as intermediaries between businesses and government; and helping to improve the effectiveness of the government's regulatory and institutional role. Associations are important where businesses need to act as a group to solve a ‘collective action problem’; for example, to influence government to change a particular transport regulation (Bennett, 1998, p. 1368). Bennett identifies eight such areas: price and product associations, collective bargaining, self-regulation, representation and lobbying, community support and/or social responsibility, group marketing and purchasing, business services and acting as a forum or club.

⁴⁰ <http://www.nzta.govt.nz/resources/agri-vehicles-guide/docs/agricultural-vehicles-guide.pdf>

The most important roles of the RCNZ, the Road Transport Forum and NZAAA appeared to be for representation and lobbying to Government and local bodies. These associations provide technical information and advice to Government “overcoming an information asymmetry between the legislator and the subject of legislation” (Bennett, 1998, p. 1374). However, since the benefits of this function are not exclusive to those holding association memberships, there are problems of opting out and free-riding. To overcome this, associations usually offer a ‘bundle’ of services to their members, including group purchasing (to gain from economies of scale), advisory services, information services through newsletters, and forums for group activity, such as an annual conference which enables members to meet with similar-minded business owners. In addition, some associations provide a self-regulation system.

The RCNZ is attempting to raise the level of professionalism in their sector by encouraging self-regulation through Registered Rural Contractor and Qualified Rural Contractor accreditation system. Registered Rural Contractor accreditation is gained through an outside audit process to prove that the contractor can “meet all statutory and regulatory compliance requirements and [is] safe to do business with” (Parton, 2010, p. 6), although other associations have self-declaration accreditation systems. RCNZ sees the Master Builders’ accreditation system as a successful model. “Being a Registered Master Builder means belonging to the most respected building industry body in New Zealand. Our well established brand is widely recognised by consumers as hallmarks of quality which gives them the confidence when entering into a building project⁴¹.”

By contrast, the Fencing Contractors’ Association New Zealand is primarily to support self-regulation through promoting training, rather than a lobbying organisation⁴².

The benefit of such self-regulatory systems is that best practice knowledge from within the industry is implemented and that “it can also inhibit ‘cowboys’ in the sector to the benefit of the consumer” (Bennett, 1998, p. 1373). This benefit was recognised by Cultivation Contractor who saw the accreditation system as the pathway for sustainable growth for RCNZ. The current slow up-take of the concept, he believed, was due to the low level of legislative compliance of most contractors, confirming Bennett’s (1998) opinion that self-regulation aids government by increasing compliance. Accreditation is likely to become increasingly important in the future as overseas markets demand traceability and sustainability

⁴¹ From an advertisement in The Press, 29 March, 2010, p. A11.

⁴² See Fencing Contractors Association New Zealand (FCANZ) website: <http://www.fencingcontractors.co.nz/Home/tabid/34613/Default.aspx>

(Parton, 2010). However, it would appear that currently farmers do not know about, demand, or even value such self-regulatory systems. Consequently they are unlikely to be willing to pay more for a Registered or Qualified Rural Contractor.

Most of the contractors interviewed valued the advocacy role that associations can take in influencing Government policy changes. Some appreciated the opportunity to socialise and talk to like-minded contractors from other regions at the annual conferences. Several contractors mentioned the value of association newsletters in enabling them to keep up to date with regulation and technology changes. Group buying of insurance and supplies was seen as a further benefit of membership. The survey results indicated that associations had a further role to play in uniting the sector and promoting the sector to the public. One of the machinery suppliers also felt that RCNZ should be devising a long term strategy to improve the profile of the sector. One contractor believed that a potential role for the association was to provide information on topical economic changes to enhance contractor decision-making. Bennett and Ramsden's (2007) survey found that associations' role in offering information, advice, lobbying and representation and networking was important to around half of those surveyed. A further 25 percent valued the marketing role and the kudos they gained from being a member while about 17 percent valued the social activities and accreditation systems.

Further research into the relationship between contractors and their associations would identify what services members want and value from their associations. New Zealand SMEs are likely to have quite different needs from those identified by British SMEs by Bennett and Ramsden (2007). If associations are to be effective at lobbying and representing the sectors, then they need a high proportion of their potential members to join.

7.3 How do Rural Contractors Seek to Meet Farmers' Needs?

7.3.1 Introduction

Section 7.3.2 firstly discusses how contractors meet farmers' needs by focussing on the elements which arose out of the survey and were then discussed in the interviews: value for money, communication, payment, timeliness and the importance of health and safety. Innovation is included here because of the implications it has for the future role of contracting. The last section concludes that for sheep and beef farmers, a good farmer-contractor relationship is highly reliant on building up personal trust between the two parties. Section 7.3.3 goes on to consider the future for agriculture that experts are predicting, and attempts to link its likely effects to the farming and contracting industries. It discusses trends

in farming and how contracting will fit in with the forecast changes. It then looks at New Zealand's changing markets and the implications of these changes. Section 7.3.3.3 considers the future issues facing the contracting industry and finally, Section 7.3.3.4 takes a broader look at how the contracting-farming relationship affects the rural communities that sustain the farming families.

7.3.2 Farmer-contractor relationships

Value for money

The contractors surveyed felt that farmers did not relate the quality of the job to the cost of the job. They believed that farmers want the cheapest job possible and are not prepared to pay extra for quality and a back-up service. Palva (2007) also identified this as a problem in the Finnish contracting study. Contracting charge-out rates are usually on a per hectare basis. With variation in field size, shape and condition; travelling time; and the infrastructure in place; all affecting the job performance, the Finnish contractors found that farmers were unwilling to pay more than the basic going rate. While pay for wear and tear had been introduced by one of the New Zealand contractors, there were also other cost and efficiency problems; farmers who open gates can save contractors time while farmers buying bulk deals of chemicals create time-consuming extra work for the contractor. Rocks, abandoned electric fence standards and tree prunings can all cause very expensive damage to balers and harvesters.

This 'value for money' problem in the contractor/farmer relationship did not surface during the farmer interviews. Four farmers specifically talked about the relationship between job quality and the cost, and how a cheap job could lead to problems. What they were concerned about was reliability and quality rather than cost. The aerial contractor believed it was younger farmers who were after the cheapest job that might result in the contractor taking short cuts. Two other contractors believed that dairy farmers were always trying to 'beat the dollar down'. Older sheep and beef farmers may be less likely to have profit as their main farming goal; satisfaction in the quality of their livestock or the appearance of their farm may be more important to them than younger farmers with higher debt loadings (Fairweather et al., 2007; Hunt et al., 2006).

Farmers themselves have a role to play in gaining value for money. They are responsible for the quality of the input that the contractor has to work with, whether it is grass for harvesting, sheep for shearing, or having stock yarded ready for the transporter. They are also responsible for ensuring the contractor can do his job quickly, safely and with no damage to his

equipment; that paddocks are clean before harvesting, and that wet spots on the farm are identified prior to fertiliser spreading.

Communication

Communication is “the process by which participants create and share information with one another in order to reach a mutual understanding” (Rogers, 2003, p. 5). The message from both sides of the contracting relationship is that good communication is vital to a harmonious and continuing relationship. The contractors admitted that there was always room for improvement, but all were aware of the importance of good communication and put both money and effort into ensuring it happened. Most of the farmers interviewed could give examples of the results of poor communication and contractors not “valuing their time”, but also recognized their own responsibilities. The introduction of the mobile phone has revolutionized communication between the parties possibly reducing, but certainly not eliminating, the burden of evening phone calls for the contractors (Hunt et al., 2006). Likewise, the use of ‘Navman’ on trucks means that the farmer can be kept informed of delays or changes to schedules, as long as there is mobile reception.

Payment

While payment and timely payment were identified as problems in the survey, it would appear that this is only an occasional issue with sheep and beef farmers. As sheep and beef farmers are more risk averse than dairy farmers (Morris et al., 1995), they tend not to purchase contracting services unless they know they can pay for them. While contractors may have to wait for payment at times, sheep and beef farmers will generally communicate this so contractors seldom resort to debt collection agencies.

Timeliness

Timing of the work and customers requesting it too late were problems identified in the Finnish study (Palva, 2007). Timeliness is dependent on four things: the weather, machinery reliability, two-way communication between contractor and farmer, and the contractor’s management skills. While the weather cannot be controlled, the contractor can ensure that he buys well-proven brands of machinery with a good back-up service and keeps them well-maintained. The Commerce Commission noted that contractors typically purchase new tractors and replace them every 4 to 6 years because “it is important that the tractor does not break down during the peak season” (2004, p. 15). All of the surveyed farmers were conscious of their role in ensuring that the contractors were well-informed of on-farm

progress and changes, although this is not a universal feature of farmers. Contractors who know their individual client's foibles, and have well-trained, well-managed staff can manage timeliness better.

Health and Safety

"It is indisputable that farming is one of the most dangerous industries in New Zealand" (Stallard, 1998, p. 442). In 1990, there were 53 injuries for every 1000 people working in agriculture compared to the national average of 41. According to ACC, one farmer is killed at work every three weeks, while 12 are seriously injured every day (ACC, 2002). Lovelock and Cryer's (2009) report on effective occupational health interventions in agriculture found that while occupational fatality rates have been falling in other industries over the last decade, they remain high and static in agriculture. Serious accidents are primarily related to livestock, vehicles, machinery and falls. 52 percent of the 365 work related fatalities in a DoL (2007) report involved a vehicle and 70 percent of the fatalities could be attributed to human error or 'procedural violations'. From 1997 to 2006 there were a total of 190 crashes on the roads involving tractors, of which 18 were fatal and 53 were serious-injury crashes (NZ Transport Agency, 2009).

Health and safety on New Zealand farms is regulated by the Health and Safety in Employment (HSE) Act 1992, which was amended in 2002. The Act's principle object is to provide for the prevention of harm to employees at work by requiring employers to take "all practicable steps"⁴³ to ensure workplace safety. The Act expects employers to have a system for identifying and managing the workplace hazards. While not mandatory, documentation is advisable as proof of the farmer's system.

The HSE Act is primarily administered by the Department of Labour's Health and Safety Service where the Minister of Labour is the relevant Minister, although the Civil Aviation Authority has been designated the agency for the aviation sector. This study did not investigate the farmers' health and safety systems, but focussed on the farmers' responsibilities to the contractor coming onto his farm.

Section 18 of the Act places a duty on a principal (the farmer) to take all practicable steps to ensure that contractors and their employees are not harmed while undertaking any work under

⁴³ "All practicable steps' is a key concept in the Act. The Act places a duty on employers, employees, self-employed people, people in control of workplaces, and principals (people who engage contractors to carry out work for them) to take all reasonably practicable steps, in circumstances they know or ought reasonably to know about, to ensure their own safety and that of others. 'All practicable steps' describes the standard a person must meet when carrying out duties under the Act." Retrieved from <http://www.osh.dol.govt.nz/order/catalogue/pdfs/allpracticablesteps.pdf>

contract. In practical terms, this means that farmers have a duty to warn a contractor of any hazards that the farmer can control, such as overhead power-lines or unsafe farm tracks. In using a contractor, the farmer needs to prepare and plan for the work, ensure the contractor is competent, provide information or resources to the contractor where required, and monitor his performance⁴⁴. For example, if the contractor was a shearing contractor, the farmer would need to ensure that the shearing facilities were safe, and be satisfied that the shearer and his employees were competent or suitably supervised, and had safe work habits.

While farmers are not held accountable if a contractor is injured while using the tools of his trade, the Court rulings have made it clear that employers must be “proactive, analytical and critical” in providing a safe working environment. Consequently Stallard (1998, p. 449) believes that there has been an erosion of individual responsibility. The farmers interviewed had varying degrees of awareness of their responsibilities under the Act, ranging from little awareness to knowing that they had to warn contractors of any hazards. However, none had a system in place to ensure their responsibilities were fulfilled when contractors came onto their farms. One farmer wanted to put a more formal system into place but was not sure what would be a suitable system, supporting Stallard’s (1998) contention that farmers either did not know how to comply or did not know whether their compliance was legal. Lovelock and Cryer (2009) found there was resistance to the idea of enforcement or regulation amongst their farmers on pragmatic grounds. The HSE Act was seen as being difficult to adapt to a farming environment: “farmers felt that commonsense is the best defence on a farm” (Stallard, 1998, p. 457).

Contractor responses were equally varied. One contractor felt that while farms were “walking hazards” he would “get nowhere” if he worried about a health and safety briefing from each farmer. Some contractors did an informal check, while the aerial contractor had a check list that included whether farmers had identified any hazards; low power lines cause fatalities in his sector. Contractors did tend to have health and safety policies covering their own workers. The larger contractors, in particular, were highly conscious of their responsibilities, trying to ensure that their policies were active. Fatigue is a serious hazard in some contracting sectors. Contractors were aware of this and had informal strategies for minimising its impact.

Lovelock and Cryer (2009) believe that the increase in farm sizes and the changes in the labour force composition have implications in agriculture for both injury and disease. The use

⁴⁴ For full details of the principal’s responsibilities see <http://www.osh.govt.nz/order/catalogue/contracting-health-safety.asp>

of contractors is resulting in a greater number of vehicles and machines spread over larger territories, but Lovelock and Cryer suggest that the management of risk and the nature of employment experiences for workers on these properties are largely unknown. In addition, the use of more casual labour is associated with more fatalities (DoL, 2007). With the decline in rural population, older farmers are working longer and this may increase the number of farm accidents (Zega, 2009). However, this researcher agrees with Lovelock and Cryer that contractors might be better prepared for the risk with more up-to-date equipment, better training, greater safety awareness and, most importantly, they are highly familiar with their tasks, unlike the farmer.

So the health and safety risks of these contracted-out tasks passes from the farmer to the contractor, which may have the effect of reducing farm accident statistics. Unless highly detailed statistics of farm accidents have been gathered by DoL, it may not be possible to determine whether this is occurring. Lovelock and Cryer do point out that the farmer who is less economically viable may not be able to afford to contract out and so would end up working longer hours alone, probably using older machinery, and thus be at increased risk. In addition, with the movement of dairy farmers into traditional sheep and beef areas, Hunt et al. (2006) found that neighbours no longer had close relationships and no longer looked out for each other to the same extent as in the past.

This wide area of health and safety has significant implications for the improvement of accident statistics in the agricultural sector. Further research into the safety record of contractors, and into the farmer/contractor interface, could contribute to a better outcome for the agricultural sector while improving its attractiveness to potential employees.

Innovation

According to MAF (2009), New Zealand is no longer the world's lowest cost meat producer. Technology up-take is vital if New Zealand is to maintain its competitive advantage; innovation is internationally recognised as a link to productivity and economic gains (Statistics New Zealand, 2009). While Kyte's (2008, p. 2) belief that "to stay ahead of the rest of the world, we must be the fastest implementers of new research and technology," applies the dairy sector, it is equally valid for the sheep and beef sector. KMPG (2010, p. 12) contend that the sector needs to refocus on producing high quality food, and that rural contractors have a major role to play in this "as specialists and the providers of the most up-to-date technology in farm machinery".

Yet, the interviewed farmers used contractors for their skills in specialisation rather than for the technology they offered. Most contractors have GPS but, in general, this feature is not utilised by sheep and beef farmers, even for fertiliser spreading.

Some of the contractors were obviously 'innovators' (Rogers, 2003). Chemical Applicator had invented a new method of dipping sheep over thirty years ago, which is still in widespread use today. He had also been using computers on his spray trucks for 25 years and GPS for about nine years. Aerial Contractor had invested heavily in precision spraying equipment to overcome a spray drift problem. Spraying and Fertilising Contractor had a specialised machine for inter-row clover spraying. Although Large Transporter's father had introduced a revolutionary fertiliser spreader in his early contracting days, Large Transporter admitted that they were now 'early adopters' rather than innovators (Rogers, 2003). This was so that they did not have to deal with the problems involved in adapting new technology to New Zealand conditions. However, they were industry leaders in the systems they used. The agricultural and forage contractors acknowledged that often there was just as good a return on some of their older gear compared to their newer gear, yet they regularly up-dated machinery.

In the forestry contracting industry, where the move to mechanisation has tended to be reactive rather than strategic, the take-up of modern technology has been driven by the passion of some contractors for machinery (Shrider, 2007). It would appear that the same situation applies to the rural contracting industry. Both machinery suppliers worked with contractors who had a passion for new developments in their area. These contractors sought out information about technology advances through a variety of means including the internet, blogs, overseas travel and the written media. They matched Rogers' (2003) description of innovators as active information seekers about new ideas, with a high degree of mass media exposure and interpersonal networks that extended over a wide area. In addition, Rogers added that innovators are able to cope with higher levels of uncertainty than their less innovative peers. In the above examples, the contractors either had a problem to solve or saw an opportunity which generally involved taking a risk. According to one machinery dealer, the innovators may not be the ones to gain a large payback; the early and middle adapters, who are able to base their decisions on observing successful innovators, are the bigger beneficiaries. In his opinion, the laggards either needed a very loyal customer base or were likely to go out of business.

In their Business Operations Survey 2009⁴⁵, Statistics New Zealand (2009, p. 7) found that 90 percent of businesses gave “wanting to increase their revenue” as a reason for innovation. This was followed by “wanting to increase productivity” (78 percent), “to increase responsiveness to customers” (73 percent) and “to reduce costs” (66 percent). In a highly competitive industry with a high capital investment and a low return, contractors want to increase their returns through increased efficiency, greater reliability or reducing costs. Yet, of the 756 ‘Agricultural Forestry and Fishing Support Services’ (ANZSIC classification) surveyed in 2009, only 33% had implemented innovative activity (Statistics New Zealand, 2009).

The nature of the farmer-contractor relationship

Few of the contractors entered into a formal contractual relationship with their farming clients despite a trend within society for businesses to protect themselves from loss by using legally enforceable contracts. Don Nicholson, the current president of Federated Farmers, encouraged the farming community to ensure they used employment contracts because “shakes of the hand do not work any more in modern society and it is pretty much dog eat dog...” (Cronshaw, 2010). Neave of Duncan Cotteril Lawyers suggested that it is “always preferable for any contractor supplying goods and services, however limited, to enter into a written contract with the customer” (Neave, 2010). Some of the contractors had contemplated using contracts, but they considered that the transactions costs of both time and expense were prohibitive, with only lawyers benefitting. Furthermore, they related very few instances whereby a formal contract would have been needed.

The relationship between farmers and contractors is, therefore, one based on trust, which may be defined as “the confidence that the other party to an exchange will not exploit one’s vulnerabilities” (Korczynski, 2000, p. 2). Trust involves relationships where there is a risk of adverse consequences: the contractor does not meet the required standard which results in a loss for the farmer; or the farmer refuses to pay the contractor fully. The benefits of a trust relationship are that it can reduce transaction costs, facilitates cooperation, create social capital and reduce risk or uncertainty (Curry, 2010).

Different types of trust have different bases of confidence. The contractor-farmer relationship is based on personal relations; information gained first-hand is cheaper and better than other sources of information. On the other hand, a farmer-Registered Contractor relationship would be based on institutional trust, as the farmer is confident that the contractor will “not exploit

⁴⁵ The survey covered over 35,000 New Zealand private enterprises with six or more employees, over \$30,000 of annual GST turnover and which had been operating for at least one year.

his/her vulnerability” because the contractor is “a member of a professional association” (Korczyński, 2000, p. 6).

Farmers relied on contractor reputation, gained from neighbours’ experiences, when seeking a new contractor. Trust can be significantly facilitated if the farmer relies on a well-known and trustworthy intermediary for information (Khodyakov, 2007). While it may be in a contractor’s short-term interests to exploit a farmer’s vulnerability, there is a market for reputation that prevents exploitation by those contractors in business for the long-term (Korczyński, 2000). The farmer-contractor relationship is based on the assumption that the contractor will reciprocate and comply with the farmer’s expectations, as well as “existing formal and ethical rules” (Khodyakov, 2007, p. 122). All of the contractors interviewed were highly concerned about their reputation. It is possibly those contractors with short-term horizons only, who are not concerned about their reputation and hence seen as the ‘cowboys’.

Obviously, where there are repeated successful transactions over time between the same individuals, trust will grow. This was the basis for Spraying and Fertilising Contractor’s observation that it was desirable to be “back in the same gate offering the service to the same customer”. An increasing knowledge of each other’s social norms means that friendships may also develop, as was evident in some of the case studies. In addition, “people who know and trust one another are more likely to be able to work together to find solutions to problems that are mutually acceptable to everyone” (Sharp & Smith, 2003, p. 916). Farmer 11’s story of the contractor who inadvertently sprayed the neighbour’s paddock illustrated this problem solving feature of trust.

As trust increases, the farmers have the opportunity to take back some of the control of the contracted activity, since “security and stability encourage the search for new ways of accomplishing tasks, promote learning and the exchange of information” (Korczyński, 2000, p. 14). Both farmers and contractors commented on this aspect of their relationships. This trust relationship appears to be the foundation of the harmonious relationship between most sheep and beef farmers and their contractors, and eliminates the need for formal contracts. However, it suggests that the relationship between some of the more mobile dairy farmers and contractors would be different, because they are often not in one place for sufficient time to be able to develop a trust-based relationship. The financial cost of the service then becomes a higher priority than developing interpersonal trust. This is despite the fact that, according to agribusiness accountant, Pita Alexander (2009, August), “trust is the single most important factor in personal and business relationships”.

The reliance on mutual expectations suggests the farmer-contractor relationship can be looked at as a psychological contract. Psychological contracts are “the belief systems of individual workers and employers regarding their mutual expectations” (Rousseau & Schalk, 2000a, p. 1). These are the expectations between the two parties that do not appear in a written contract. Herriot (1992, p. 6) defines the psychological contract as “the invisible glue which binds individuals to the organisation over time”, incorporating “the parties’ beliefs, values, expectations and aspirations”. While the contracting relationship is not between an employer and employee, the principles of such a relationship would still apply, although there would be a more equal balance of power. The core of psychological contracts is based on the issues relating to the willingness of the two parties to rely on each other’s promises. In the case of sheep and beef farmers it would appear to be a relational psychological contract, which is an “open-ended, potentially long-term agreement with economic as well as socio-emotional involvement between [contractor] and [farmer]” (Rousseau & Schalk, 2000b, p. 298). By contrast, the dairy farmer might rely more on a transactional psychological contract which is a short-term exchange for compensation. Tipples (1996, p. 36) believes that a good psychological contract “hinges on good communication, clear thinking and mutual understanding of expectations/perceptions of obligations”. Future research in this area could help to explain the differing relationships between sheep and beef farmers and dairy farmers with their contractors.

7.3.3 The future

“And we still see a direct relationship between the health of primary production and the health of the New Zealand economy” (Bollard, 2006).

7.3.3.1 Farming trends

The sheep and beef farm

The area devoted to sheep and beef farm land is falling; it dropped two percent between 2002 and 2006, and this trend is expected to continue for at least the next 10-15 years at a rate of 0.2 percent per year (MAF, 2009). This is a result of the growth of the dairy industry; it requires sheep and beef land for further dairy conversions. In addition, with the introduction of the ETS and carbon trading, the forestry industry is expected to grow at the expense of sheep and beef farming. Farm numbers will decline by 0.5% per year and stock numbers will initially increase as farms recover from drought and then decline as land area declines (Agriculture Services Limited, 2010). Farm size will continue to increase.

It seems likely that the trend to increasing diversification on farms will continue as farmers try to spread their risk by becoming less reliant on sheepmeat alone now that strong wool prices are so low (Poole, 2010). This diversification will likely be both agricultural and non-agricultural, as farmers have shown their ingenuity in the past in creating new enterprises using their existing resources. They are likely to continue to seek changes and innovations that increase farm productivity and reduce labour inputs.

The farm labour

Total permanent labour seems likely to continue to fall, but as farm sizes increase, permanent labour per farm might not fall. While the Meat and Wool New Zealand Economic Service had tracked a corresponding gradual fall in casual labour from 1981-82 until 2003-04 from 0.37 units per farm to 0.14 units, the figures had climbed quite dramatically to 0.22 units in 2004-05 when farm profit jumped by 38 percent⁴⁶. Thus, it is not possible to predict the direction of casual labour employment although it is likely to be closely linked to farm profitability. The available pool of skilled permanent labour is unlikely to increase with the continuing growth of the dairy industry, which is already highly reliant on migrant labour. The days of the “jack-of-all trades” farm worker are numbered (Ball, 1987).

A significant factor that needs to be considered is the ageing of the farm workforce and, in particular, farm owners (Fairweather & Mulet-Marquis, 2009; MAF, 2009). The mean age of farmers is 52 and rising, but 39 percent of farmers in the Meat and Wool survey were over 60 years old in 2009 (Agriculture Services Limited, 2010). While sheep and beef farming still has a family character, the ARGOS study has found that farmers do not expect their children to continue farming unless they show a strong interest (Fairweather et al., 2007). This suggests there may be a gradual change away from the family farmer/owner to more professional farm managers for a family trust, or to equity farm managers (Agriculture Services Limited, 2010). While the results of this study do not indicate this will necessarily alter contractor use, it seems logical to suggest that as farmers age, they may make greater use of contractors to reduce their own workload. In addition, research shows that older farmers are less inclined to be innovative so productivity increases may slow (Diederer, van Meijl, Wolters, & Bijak, 2003).

Pluriactivity is now a feature of the farming scene and the trend towards increasing non-agricultural work by farming households is unlikely to change (Coombes & Campbell, 1996; Taylor et al., 2004). Where this is an attempt to increasing the farm’s resilience by investing

⁴⁶ Figures from Sheep & Beef Farm Survey supplied by Meat & Wool New Zealand Economic Service, 2 April, 2009.

the off-farm income in the farm, it is likely to increase the use of contractors as farmers carry out development work (Hunt et al., 2006; Parminter, 1997). It certainly reduces the availability of family labour. As dairy farms continue to push sheep and beef farms further out into more difficult country, the distance to towns will increase, possibly limiting off-farm employment opportunities for farm families. Further research is needed to determine whether pluriactivity does increase the use of contractors and/or casual labour and to what extent.

7.3.3.2 Future market requirements

The world's population is both growing and becoming more urbanised. Urbanisation brings a demand for protein-rich foods and a more sophisticated consumer, wanting a wider range of attributes in their food beyond quality, freshness and variety. Food security is becoming increasingly important to many countries such as China, India, Japan and Korea (Parker, 2009). The third millennium issues are looking to be product traceability, disease free status, animal welfare, fair trade, sustainable production methods, food miles and carbon footprints (KPMG, 2010; MAF, 2009; Moynihan, 2008; Parker, 2009). Most of these features cannot be determined visually or even evaluated during normal use. Such features are called 'credence attributes', as distinct from 'search features' whereby consumers choose on things such as price and size, or 'experience features' which include taste and convenience (Darby & Karni, 1973). Credence attributes need some form of verification to assure consumers they are getting the particular attribute they seek.

The sheep and beef sector will need to be able to verify improved environmental performance to meet both sheepmeat and wool market requirements, as well as to satisfy domestic, and possibly international, regulations. For example, with the introduction of 'Laneve', an integrity branding of wool, on-farm accreditation for the environment, animal welfare, chemical management and social responsibility will be monitored (Abercrombie, 2010). This means that systems of on-farm nutrient budgeting, limits to water extraction and stricter controls on farm effluent discharges, along with animal welfare management plans and traceability of food products will be required. Thus, the credentials of agricultural production will need to become more visible and embedded than now, and will need to cover a wider range of production and environmental attributes (Parker, 2009). KPMG reported that if producers fail to adopt sustainable practices they will end up competing with the lower cost producers from the new production regions in the world. To avoid this KPMG considers that the meat sector needs to refocus on becoming the "most efficient, integrated and sustainable producer of high quality food solutions in the world" (KPMG, 2010, p. 12).

As increased monitoring of fertilizer and nutrient management is required, any technologies that improve nutrient use through better precision in placement, lower run-off and better recycling of effluent will be utilized. There will be a need for low cost, environmentally-friendly, more accurate weed and pest control. Gains in energy efficiency from the use of modern plant and machinery will lower carbon emissions and reduce farmer or contractor costs (Parker, 2009). It is in these areas that rural contractors, as the main uptakers of the machinery that can achieve these goals, will become increasingly important. The expenditure required to gain the high technology solutions will become even further out of reach of farmers already squeezed by rising costs and variable prices.

7.3.3.3 The contracting sector

MAF (2009) recognizes there are issues right across the agricultural industry in attracting labour to a sector vital to the New Zealand economy. Stevens et al. (2007, p. 37) found that the principal barrier to attracting career seekers into the agricultural industry was that “the standard negative stereotypes portrayed industry conditions and prospects as poor”. This problem is recognized within the contracting sector as well. Agriculture has been touted as a “sunset industry” for many years and so its advances have not been well highlighted. Public perception of the industry has been poorly aligned with its performance in productivity and production: “the industry could do more to improve its profile” (McDermott et al., 2008, p. 78).

Formalised training uptake within the industry has been very low. The uptake of the NZQA Certificates in Rural Contracting at Levels 1, 3 and 5 qualifications amounted to 158 enrolments in total, as at March 2009, with a completion rate below 15 percent. By contrast, in the spraying sector where qualifications are required by local councils and government organizations, there had been 445 enrolments in the National Certificate in Agrichemical Application L3 at the same date, with a completion rate of 65 percent⁴⁷. Similarly, to date there has been a very low uptake of the Registered Rural Contractor offered by RCNZ. It would seem that if the sector wishes to raise its profile, one strategy would be to promote training for its labour force and accreditation for its businesses. Training provides transferrable, recognizable skills, improving employability while accreditation provides customers with an assurance of the professional standing of the provider. In addition, accreditation systems make the ‘cowboys’ more visible to the customer. The move towards formal traceability requirements may force the industry to embrace accreditation at a faster rate in the near future, and to increase professionalism. Traceability may also increase the rate

⁴⁷ Figures as at 23 March, 2009, supplied by Infracrain.

of innovation and force farmers to rely more heavily on contractors to provide proof of their sustainable environmental practices.

The rural contracting industry has a contribution to make to the economy beyond the services it provides to farmers. It has a considerable support industry with 151 tractor dealers throughout New Zealand (Commerce Commission, 2004, p. 9), along with its requirements for financial and legal services, plus the consumable inputs it uses.

7.3.3.4 Significance to rural communities

This section takes a step back from the farmer-contractor interface to consider the wider social setting of the rural community. As Nettle et al. (2005, p. 20) point out, “On-farm employment issues can be viewed as part of the wider social pressures mounting on human resources in rural areas”. The pressures of declining numbers of farms and farm workers, declining numbers of young people returning to farming, the ageing of farmers and the general movement of resources away from agriculture have already been discussed. Alston (2007, p. 18) expressed concern that the long-term viability of Australian agriculture was highly dependent on “vibrant rural communities, requiring educational facilities, employment, transport and telecommunications infrastructure, and health and welfare services”. New Zealand agriculture is no different.

Hunt et al. (2006) found that, for their ARGOS farmers, a sense of belonging to, and needing to contribute to, a community was part of their farming vision. The ARGOS farmers identified a range of communities, from those dying because the locals travelled to the nearest urban centres for their shopping and recreational needs, to those that were becoming revitalized by the influx of young families. These farmers were often involved in their local communities through the local primary school, sports activities and organisations such as the local and regional A & P show committees. Several of the contractors interviewed also talked about their contribution to local communities, through staff immersing themselves in the local area, to financially contributing to such activities as sports groups and A & P shows.

Joseph, Udgard and Bedford (2001) carried out a study to specifically look at the relationship between two farming sectors and their local rural communities. They identified the complex interrelationships whereby farmers and their families looked to the local community to provide them with off-farm work, while at the same time some members of the local community, particularly the unskilled, looked to the farmers to provide them with on-farm employment. They acknowledged that pluriactivity reduces the pool of voluntary labour available, further weakening the rural community. Added into this blend was the growth of

the dairy sector and the lifestyle segment. Differing values create some conflict between farmers and non-farmers (Sharp & Smith, 2003). Anecdotally, the growth of the dairy sector has exacerbated this loss of community with dairy families both too busy and too transient to invest in their local communities to the same extent as the more sedentary sheep and beef farmers.

Joseph et al. (2001, p. 23) commented that the rise of contractor use has “reduced opportunities for young, largely unskilled farm labourers to find permanent positions on farms”. What both they and Alston failed to recognise is the importance of rural contractors in providing alternative employment for the wider rural community, both pluriactive farmers and local youth. In addition, the contracting sector provides a small pool of casual labour in the off-season for farmers to utilise. Lifestyle farmers, less reliant on agricultural prices, provide alternative work for contractors. Some lifestylers also add to both the farm and contract labour pools. While Share et al. (1991) considered that for many of the ageing farmers, their limited formal education prevented a transition to other work, this study found that such farmers can also find casual work in both farming and contracting sectors. Thus, the contracting sector should be valued for both the services it provides to agriculture and its contribution to maintaining a ‘vibrant’ life in the rural communities.

Chapter 8

Conclusion

This research project set out to gain an overview of the role of the rural contracting industry on South Island sheep and beef farms. Existing literature provided a very rudimentary and incomplete picture of the rural contracting industry. While there exists a considerable body of work on sheep and beef farmers, particularly on labour use and the farmers' responses to the drastic de-regulation of the 1980s (See for example: Drummond et al., 2000; Fairweather, 1992; Frengley & Engelbrecht, 1998; Johnsen, 2004; Sandrey & Vink, 2007; Smith & Montgomery, 2003; Smith & Saunders, 1995; Wilson, 1994), no-one had considered the growing use of rural contractors in any depth, and the implications this had for farmers and their communities. This project has attempted to fill this gap through exploring both parties individually and then examining the relationships between them. The conclusions from the research have been discussed in the previous chapter, but due to the extensive nature of the project, a shorter summary along with the main recommendations for future research, are also provided in Section 8.1. Figure 4.1 provides a complete overview of the project and the main topics that it covers.

8.1 Summary of Findings and Future Research Recommendations

8.1.1 The farmers

The research question "How do sheep and beef farmers decide on the particular combinations of labour they use?" sought to determine how rural contractors fit into farming systems. This was explored by interviewing 11 farmers throughout the South Island on a wide range of sheep and beef farms. The results agreed with many of the previous research findings. Intergenerational family labour is still vitally important on the farms, but both off-farm employment and on-farm diversification are important strategies for increasing income, reducing risk and enriching individual's lives. Farmers are finding it increasingly difficult to find multi-skilled permanent employees and there are also increasing legislative and cost disincentives which discourage the use of permanent employees. Instead, farmers appreciate the flexibility gained from employing casual labour and rural contractors. The farmers were found to spend between 14 to 45 percent of their operating costs on contractors. A weak positive relationship between the numbers of stock units per labour unit and the percentage of

operating costs allocated to contractors indicates that farmers do use contractors as a substitute for other forms of labour. However, the skills and experience that contractors offer, along with their more up-to-date machinery, seem to be more important reasons for using contractors. As yet, sheep and beef farmers do not appear to fully utilise contractors for their technological equipment, such as using GPS for traceability purposes. Nevertheless, the emergence of the scanning sector over the last 15 years, is an example of farmer uptake of technology through the use of the contracting sector.

Changes in farming techniques and style often included an element of labour saving, such as increasing the cattle to sheep ratio, due to the lower labour requirements of cattle. Farmer focus is on cost saving and/or productivity increases. The ageing of the farming workforce, particularly of the farmers, along with the increasing scale of farms, would indicate that the use of contractors is likely to increase in the short term. Furthermore, the trend towards the need for accreditation of farms, when producing integrity products with traceable credence attributes, will also tend to favour increased use of contractors. Contractors, along with the use of casual labour, provide both the numerical and functional flexibility that farmers are seeking.

As increasingly complex enterprises force farmers to focus on their managerial and governance roles, they are tending to pass over some of the physical farm work to contractors. There is a possible cost of eventually losing some of their more basic skills, such as spraying crops or producing quality conserved feed. However, farmers tended to view contractor use as risk minimising rather than risk increasing.

Despite Brookfield's (2008) passion about the continuance of the family farm, he does overlook the importance of the role rural contractors play in allowing these farms to persist. Contractors can provide both skills and technology which are out of reach of the average farmer, as well as offering a substitute for on-farm labour for tasks such as fencing and weed control.

Future research is needed to investigate in greater depth as to when and why farmers use contractors. Research into the true cost of employing permanent labour compared to casual labour or utilising contractors could aid farmer decision-making in the area of labour employment. Aside from acting as a substitute for labour, there are a wide range of reasons for contracting. There would be value in identifying these reasons, particularly from the perspective of cost. Do farmers make cost calculations when deciding what machinery to

buy? Is there a farm size at which a farmer should consider purchasing their own cultivation or harvesting equipment rather than using a contractor?

8.1.2 The contractors

The research question, “What influences the ability of rural contractors to meet farmers’ needs?” was researched by gathering data in two ways: firstly by attending a RCNZ conference where a short questionnaire was filled in by 65 contractors, and secondly by interviewing 11 contractors across a range of contracting sectors. From these two sources it was found that the major, short-term problem facing contractors was finding workers who were willing and able to learn the skills required. Like farmers, contractors have the choice of employing permanent or casual staff while some sectors also have a need for seasonal staff. Each of these groups has certain desired attributes. Permanent staff need to have a good attitude and preferably a rural background, and can then be trained on-the-job. Seasonal staff need previous machinery and contracting experience so that they can be productive immediately. Where possible, contractors preferred to retain permanent staff over the off-season for a range of reasons. Increased numerical flexibility is gained by the use of casual staff who often come from the farms. Farmers, retired farmers, lifestylers or farmers’ sons, already have the basic experience to carry out the less skilled tasks. Pay and conditions varied widely across, and within, the sectors.

Weather was the other major short-term concern. Good weather meant a good season for contractors but was not to be relied upon. Most of the contractors had diversification strategies across both the services offered and the sectors serviced, to reduce both the effects of weather and the problem of operating in a seasonally-based industry. Competition was also seen as an on-going problem facing all sectors. The interviewed contractors relied on providing a good quality service to retain existing clients and to build a reputation attractive to new clients. This matched the characteristics sheep and beef farmers were looking for in their new contractors. Contractor qualifications and accreditation were only seen as important by a few contractors, and not recognised at all by farmers.

While financial viability was identified as a concern by 15 percent of those surveyed, this study did not examine contractor finances. The contractors interviewed had a wide range of strategies for working out their charge out rates. They were more unified in the importance of providing a client-focussed service, but marketing of their services was often overlooked.

The long-term issues concerning those surveyed were: how to raise the profile of their industry (26 percent); the state of the economy (28 percent); and the problem of dealing with

the ever-increasing bureaucratic requirements (37 percent) relating to health and safety, the transport rules affecting vehicle and driver licencing, road user charges and the work time rule.

Some of the contracting industry associations have an important role to play in lobbying Government for changes in the regulatory environment. In addition, they provide a range of information services for contractors about changes in regulations and new innovations. Some provide discounted inputs such as fuel or insurance, and all provided the collegial and social networks that self-employed contractors often desire (Kunda et al., 2002).

The gaps remaining unanswered after completing this section revolve around the financial and business aspects of running a contracting business; the labour field and the industry's profile; and the roles of industry associations. In an industry struggling to gain a higher profile, attitudes to qualifications and contractor accreditation were surprisingly negative. Each of these areas would benefit from further research.

8.1.3 Farmers and contractors

The research question, "How do rural contractors seek to meet farmers' needs?" was answered by using all three sources of data. The major issues identified from the survey: value for money, communication, payment, timeliness and health and safety, were not consistently identified as problems by either of the interviewed parties. It emerged that there is a difference in culture between dairy farmers and sheep and beef farmers which impacts upon the farmer-contractor relationship. Sheep and beef farmers are still mostly running family farms. They seldom move farms, and so build long-term relationships based on trust and form a sound psychological contract with their contractors. The dairy farming system, with its greater reliance on share-milkers and managers (and with a higher debt-loading), appears to be more focussed on cost-saving. Further research on dairy farmers and contractors is required to determine what influence this cultural difference has on the dairy farmer-contractor relationship.

Those farmers interviewed did not choose their contractors on the basis of the cheapest price, but rather for the quality of the job offered. Owing to their attitudes towards risk, farmers did not tend to use contractors if they could not pay for the job (although they may pay late). Both parties recognised the close link between timeliness and communication, and the responsibilities each had to ensure information flowed both ways. Agriculture is recognised as one of the more hazardous occupations (Lovelock & Cryer, 2009; Stallard, 1998), but health and safety awareness was varied among both farmers and contractors. The larger contractors

usually had comprehensive and active health and safety policies while smaller contractors tended to rely on commonsense. Few were ever asked by farmers about their health and safety policies, and farmers, as principals under the Health and Safety Act, seldom appeared to carry out their responsibilities according to the Act. It is possible that the increasing use of contractors could reduce farm accidents but without further research in this area, this is merely conjecture.

New Zealand contractors are highly innovative, as indicated by their uptake of the most modern machinery from Europe and the USA, and the examples of ingenuity and passion for machinery demonstrated by some of those interviewed. New Zealand agriculture must continue to increase productivity in order to retain its comparative advantage in an increasingly competitive world (KPMG, 2010; MAF, 2009; Moynihan, 2008; Parker, 2009). In addition, it will have to meet the changing demands for agricultural products from sophisticated urban consumers. The ability of farmers to meet the required changes may well rely on the ability of rural contractors to service these changes. Further study on the contribution that contractors make to farm productivity, and the innovation uptake within their industry, will determine whether farmers and contractors can meet the future challenges. This research avoided studying the impact that the economic environment has on the contracting industry, so this too could merit attention in the future.

Finally, this research suggests that the contracting sector has also been overlooked in its contribution to the fabric of rural communities. Contractors, and their employees, live and work in these rural communities. Contracting businesses provide employment for farming families and lifestyles, and they also supply casual workers for farmers. This complex symbiotic relationship deserves further research as the health of the farming sector is partially reliant on a viable and vibrant rural community to provide the services farmers require, an incentive for local youth to remain, and off-farm work opportunities for farm family members (Alston, 2007; Joseph et al., 2001).

8.2 Research limitations

As previously discussed in Chapter 3 under constraints and limitations, the major constraint with this research project was its sheer magnitude. In seeking to establish the role of rural contractors in flexible labour use on sheep and beef South Island farms, in the absence of any previous studies, a bird's eye view was required. Gathering and analysing data from 25 interviews in the time allocated, prohibited a more desirable depth of analysis. Breadth was

achieved at the expense of depth. In hindsight, a regional approach rather than a South Island approach, would have allowed the research to focus on only one or two farm types, reducing substantially the sheer volume of data.

In addition, the initial focus on gathering information through Rural Contractors New Zealand skewed the researcher's early knowledge and interest towards this sector of rural contractors at the expense of other sectors. In particular, the transport sector, which has such a vital role to play on almost every farm, seldom appeared in the farmers' discussions on contractors. The omission of other sectors such as the professionals and the shearing sector means that the results are not representative of the whole rural contracting industry. In particular, the relationship between the professional contractors and farmers is likely to be quite different from those studied.

While the topic itself was to look at the role of contractors in flexible labour use on sheep and beef farms, in an effort to gain an overview of the whole relationship, the analysis of flexible labour use was compromised by the equal focus on the other two research questions. When formulating the topic, account was not taken of the fact that rural contractors have equally important roles as providers of machinery, technology and skills as well as providing labour.

8.3 Research evaluation

Despite the limitations outlined above, I believe that this research project has achieved its goal of investigating the role of the rural contracting industry in flexible labour use on sheep and beef farms. As an integral part of this investigation this research also presents an exploratory overview of the rural contracting industry. While there has been a greater focus on the agricultural contracting sector than originally intended and it is not a complete overview due to the omission of some groups of contractors, this research has placed many more pieces in the rural contracting puzzle. Some of these pieces are only outlined rather than well defined.

While the case study method adopted does set limitations on the generalisations that can be made, there is no evidence that the findings would not be replicated using other sheep and beef farms and other contractors. There is, however, evidence that if other farm types were used, these findings might not be applicable. The three interviews with those who serviced the contracting industry with labour and machinery provided validation of the data from the farmer-contractor interviews. They also offered a more objective perspective around some of

the issues relating to the contracting industry. “The process of change, decision-making, and action are almost universal in a market driven society” (Smith & Saunders, 1995, p. 115).

It would appear that sheep and beef farmers could no longer operate without the assistance of rural contractors. The use of skilled contractors contributes significantly to farmer productivity, allowing them to manage increasingly higher numbers of stock units without a significant increase in the use of permanent labour. In addition, these specialists also offer farmers access to otherwise unobtainable up-to-date machinery and technology. Their contribution to the success of New Zealand agriculture, and hence to the New Zealand economy, has been overlooked to date but this study has initiated a remedy for this.

References

- Abercrombie, I. (2010). *Re-introducing a luxury fibre to a changing world*. Unpublished lecture notes, August 5. CEO, Wool Partners International, guest lecturer for MGMT 340 Agribusiness Strategic Management. Lincoln University, New Zealand.
- ACC. (2002). *Farm safety around the farm*. Wellington: ACC Thinksafe Booklet.
- Agriculture Services Limited. (2010). *Projections of meat and wool skills, employment and training to 2020* (Report prepared for A. Frazer, Meat & Wool NZ and J. Neild, ASL). Palmerston North, New Zealand: Agriculture Services Limited.
- Alexander, P. (2009, August). *Profit is a decision*. Paper presented at the Grasslands Society of Southern Australia conference, Geelong, Victoria, Australia.
- Alston, M. (2007). Maintaining vibrant rural communities. In D.L.Swain, E. Charmley, J. W. Steele & S. G. Coffey (Eds.), *Redesigning animal agriculture: The challenge of the 21st century* (pp. 18-29). Oxfordshire: CAB International.
- Atkinson, J. (1984). Manpower strategies for flexible organisations. *Personnel Management*, (August), 28-31.
- Auer, P., Berg, J., & Coulibaly, I. (2005). Is a stable workforce good for productivity? *International Labour Review*, 144(3), 319-343.
- Auer, P., & Cazes, S. (2002). *Employment stability in an age of flexibility: Evidence from industrialized countries*. Geneva: International Labour Office.
- Babbie, E. (2004). *The practice of social research* (10th ed.). Belmont, California: Thomson/Wadsworth.
- Ball, R. M. (1987). Agricultural contractors: Some survey findings. *Journal of Agricultural Economics*, 38(3), 481-488.
- Barbour, R. S. (2008). *Introducing qualitative research: A student's guide to the craft of doing qualitative research*. Los Angeles: Sage Publications.
- Bennett, R. J. (1998). Business associations and their potential to contribute to economic development: Re-exploring the interface between the state and market. *Environment and Planning A*, 30(8), 1367-1387.
- Bennett, R. J., & Ramsden, M. (2007). The contribution of business associations to SMEs. *International Small Business Journal*, 25(1), 49-73.
- Billett, S., Herson-Tinning, B., & Ehrich, L. (2003). Small business pedagogic practices. *Journal of Vocational Education & Training*, 55(2), 149-168.
- Blaikie, N. (2010). *Designing social research* (2nd ed.). Cambridge, UK: Polity Press.
- Blanc, M. (1994). Introduction: Family farming in a changing world. *Sociologia Ruralis*, 34(4), 279-292.
- Blanc, M., Cahuzac, E., & Elyakime, B. (2008). Demand for on-farm permanent hired labour on family holdings. *European Review of Agricultural Economics*, 35(4), 493-518.

- Bollard, A. (2006, July 18). *Agriculture, monetary policy and the economy* (Paper presented to Federated Farmers). Wellington, New Zealand: Reserve Bank of New Zealand. Retrieved from <http://www.rbnz.govt.nz/speeches/2682999.html>
- Brookfield, H. (2008). Family Farms Are Still Around: Time to Invert the Old Agrarian Question. *Geography Compass*, 2(1), 108-126.
- Brookfield, H., & Parsons, H. (2007). *Family farms: Survival and prospect. A world-wide analysis*. New York: Routledge.
- Butson, K. (2008). *Am I working "in" the business or "on" it? Balancing governance and management in farming businesses*. Paper presented at the 2008 South Island Dairy Event (SIDE) conference. Retrieved from http://www.side.org.nz/IM_Custom/ContentStore/Assets/8/99/3ed5e51abcaa7bea130168e837ff68e9/Am%20I%20working%20in%20or%20on.pdf
- Cameron, A., & Massey, C. (2000). *The New Zealand experiment: Has it worked for SMEs?* Paper presented at the International Council of Small Business Brisbane Conference Proceedings, Brisbane, ICSB. Retrieved from <http://sme-centre.massey.ac.nz/files/087Cameron.pdf>
- Cant, R. J., & Woods, M. J. (1968). *An analysis of factors which cause job satisfaction or dissatisfaction among farm workers in New Zealand* (Technical Paper No. 2). Lincoln College, New Zealand: Agricultural Economics Research Unit.
- Carter, D. (2009). *Ballance farm environment awards*. Wellington, New Zealand: New Zealand Government. Retrieved from <http://www.beehive.govt.nz/speech/ballance+farm+environment+awards+0>
- Collins, J. L., & Krippner, G. R. (1999). Permanent labor contracts in agriculture: Flexibility and subordination in a new export crop. *Comparative Studies in Society and History*, 41(3), 510-534.
- Commerce Commission. (2004). *CB Norwood Distributors and CNH Australia Pty Limited, Decision No. 522*. Retrieved from <http://www.comcom.govt.nz/assets/Imported-from-old-site/PublicRegisters/ContentFiles/Documents/522.pdf>
- Coombes, B., & Campbell, H. (1996). Pluriactivity in (and beyond?) a Regulationist crisis. *New Zealand Geographer*, 52(2), 11-17.
- Cresswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, London: Sage Publications.
- Cronshaw, T. (2009, November 6). Scanning operators to meet standards. *The Press*, p. A13.
- Cronshaw, T. (2010, March 5). Contracts required. *The Press*, p. A13.
- Curry, N. (2010). Differentiating trust in rural decision-making, drawing on an English case study. *Sociologia Ruralis*, 50(2), 121-138.
- Darby, M. R., & Karni, E. (1973). Free competition and the optimal amount of fraud. *Journal of Law and Economics*, 16(1), 67-88.

- Davidson, C., & Tolich, M. (2003). *Social science research in New Zealand* (2nd ed.). North Shore, New Zealand: Pearson Education New Zealand.
- Davidson, R. (2007). Productivity in the pastoral sector. *Primary Industry Management*, 10(3), 38-39.
- Diederer, P., van Meijl, H., Wolters, A., & Bijak, K. (2003). Innovation adoption in agriculture: innovators, early adopters and laggards. *Cahiers d'économie et sociologie rurales*, (67), 30-50.
- DoL. (2007). *Investigation of causative factors associated with summertime workplace fatalities* (A research report). Wellington, New Zealand: Department of Labour. Retrieved from <http://www.dol.govt.nz/PDFs/summer-fatalities-full-report.pdf>
- DoL. (2009). *Workplace productivity projects: Evaluation report, August 2009*. Wellington, New Zealand: Strategic Research and Evaluation Unit, Department of Labour. Retrieved from <http://www.dol.govt.nz/publications/research/wpp-evaluation-report/wpp-evaluation-report.pdf>
- Drummond, I., Campbell, H., Lawrence, G., & Symes, D. (2000). Contingent or structural crisis in British agriculture? *Sociologia Ruralis*, 40(1), 111-127.
- Dupuis, A., & McLaren, E. (2006). *Non-standard work and young(er) workers* (Research Report No. 1/2006). Auckland, New Zealand: Labour Market Dynamics Research Programme, Massey University.
- Errington, A., & Gasson, R. (1994). Labour use in the farm family business. *Sociologia Ruralis*, 34(4), 293-307.
- Errington, A., Shepherd, D., & Daw, E. (2001). *Feeding the black hole: A new role for farmers' wives in South West England?* Paper presented at the Roots 2001 Conference, University of Plymouth. Retrieved from http://www.rics.org/NR/rdonlyres/9CFD382B-869B-4A09-BD83-B4218152FC32/0/feeding_black_hole_20010117.pdf
- Eswaran, M., & Kotwal, A. (1985a). A theory of contractual structure in agriculture. *The American Economic Review*, 75(3), 352-367.
- Eswaran, M., & Kotwal, A. (1985b). A theory of two-tier labor markets in agrarian economies. *The American Economic Review*, 75(1), 162-177.
- Fairweather, J. R. (1992). *Agrarian restructuring in New Zealand* (Research Report No. 213). Lincoln University, New Zealand: Agribusiness and Economics Research Unit.
- Fairweather, J. R., Hunt, L., Rosin, C., Campbell, H., & Lucock, D. (2007). *Understanding sheep/beef farm management using casual mapping: Development and application of a two-stage approach* (ARGOS Report No. 07/02). Agribusiness Group, Lincoln University & University of Otago, New Zealand: Agricultural Research Group on Sustainability. Retrieved from http://www.argos.org.nz/pdf_files/Research_Report_07_02_SB_CausalMap.pdf
- Fairweather, J. R., & Keating, N. C. (1990). *Management styles of Canterbury farmers: A study of goals and success from the farmers' point of view* (Research Report No. 205). Lincoln University, New Zealand: Agribusiness and Economics Research Unit.

- Fairweather, J. R., & Mulet-Marquis, S. (2009). Changes in the age of New Zealand farmers: Problems for the future? *New Zealand Geographer*, 65, 118-125.
- Federated Farmers of New Zealand. (2008). *PGG Wrightson/Silver Ferns Farm settlement delay*. Retrieved from <http://www.infonews.co.nz/news.cfm?l=1&t=0&id=28464>
- Federated Farmers of New Zealand, & Rabobank New Zealand. (2010). *Farm employee remuneration report*. New Zealand: Federated Farmers of New Zealand and Rabobank New Zealand.
- Finemore, M., & McAllister, J. (1999). Hiring labour for sugar harvesting: Farmers, farm workers and sub-contractors. In D. Burch, J. Goss & G. Lawrence (Eds.), *Restructuring global and regional agricultures: Transformations in Australasian agri-food economies and spaces* (pp. 237-252). England: Ashgate Publishing Ltd.
- Firkin, P., McLaren, E., Spoonley, P., de Bruin, A., Dupuis, A., & Perera, H. (2003). *Non-Standard Work: Alternative working arrangements amongst knowledge workers. An expanded analysis across two regions: Hawkes Bay and Auckland*. Palmerston North, New Zealand: Massey University. Retrieved from <http://lmd.massey.ac.nz/publications/NSW%20an%20expanded%20analysis.pdf>
- Flyvbjerg, B. (2006). Five misunderstandings about case studies. *Qualitative Inquiry*, 12(2), 219-245.
- Frengley, G., & Engelbrecht, R. (1998). Economic deregulation and the adjustment of New Zealand. *Choices: The Magazine of Food, Farm & Resource Issues*, 13(1), 14-18.
- Friedlander, T. (2008). *Report shows farmers heavily reliant on road transport*. Wellington, New Zealand: New Zealand Road Transport Forum. Retrieved from http://www.rtfnz.co.nz/catalog/Farmers_Depend_On_Trucks874.doc
- Fursman, L. (2008). *Working long hours in New Zealand: A profile of long hours workers using data from the 2006 Census* (Report for the Department of Labour and the Families Commission). Wellington, New Zealand: Department of Labour.
- Gamble, J., & Huang, Q. (2009). One store, two employment systems: Core, periphery and flexibility in China's retail sector. *British Journal of Industrial Relations*, 47(1), 1-26.
- Gandonou, J., Dillon, C. R., Stombaugh, T. S., & Shearer, S. A. (2001). *Precision agriculture: A break-even acreage analysis*. Paper presented at the 2001 ASAE Annual International Meeting, Sacramento. Retrieved from <http://www.bae.uky.edu/precag/PrecisionAg/Reports/Break%20Even.pdf>
- Garnett, A., & Lewis, P. (1999). *Trends in rural labour markets* (CLMR Discussion Paper No. 9/99). Perth, Australia: Centre for Labour Market Research, Murdoch University.
- Gasson, R., Crow, G., Errington, A., Hutson, J., Marsden, T., & Winter, D. M. (1988). The farm as a family business: A review. *Journal of Agricultural Economics*, 39(1), 1-41.
- Gasson, R., & Errington, A. (1993). *The family farm business*. London: CAB International.
- Greene, B. (2000). Independent contractors: An attractive option? *New Zealand Journal of Industrial Relations*, 25(2), 183-204.

- Herriot, P. (1992). *The career management challenge: Balancing individual and organizational needs*. London: Sage Publications.
- Hunt, L., Rosin, C., Read, M., Fairweather, J. R., & Campbell, H. (2006). *Understanding approaches to sheep/beef production in New Zealand: Report on first qualitative interviews with sheep/beef participants* (ARGOS Research Report No. 06/01). Agribusiness Group, Lincoln University & University of Otago, New Zealand: Agricultural Research Group on Sustainability. Retrieved from http://www.argos.org.nz/pdf_files/Research_Report_06_01_Quall_SB.pdf
- Igata, M., Hendriksen, A., & Heijman, W. (2008). Agricultural outsourcing: A comparison between the Netherlands and Japan. *APSTRACT: Applied Studies in Agribusiness and Commerce*, 2(1/2), 29-33.
- Jarvis, P., & Wilkinson, R. (1998). *Survey of compliance costs of New Zealand farmers: A study of costs and an exploration of issues*. (A report prepared for MAF Policy). Wellington, New Zealand: Ministry of Agriculture and Forestry. Retrieved from <http://www.maf.govt.nz/mafnet/rural-nz/profitability-and-economics/compliance-costs/compliance-costs/>
- Jay, M. (2004). Productivist and post-productivist conceptualisations of agriculture from a New Zealand perspective. In G. Kearsley & B. Fitzharris (Eds.), *Glimpses of a Gaian world: Essays in honour of Peter Holland*. Dunedin, New Zealand: Schools of Social Sciences, University of Otago.
- Johnsen, S. (2004). The redefinition of family farming: agricultural restructuring and farm adjustment in Waihemo, New Zealand. *Journal of Rural Studies*, 20(4), 419-432.
- Joseph, A., Udgard, J. M., & Bedford, R. (2001). Dealing with ambiguity: On the interdependence of change in agriculture and rural communities. *New Zealand Geographer*, 57(1), 16-26.
- Kalleberg, A. L. (2001). Organizing flexibility: The flexible firm in a new century. *British Journal of Industrial Relations*, 39(4), 479-504.
- Khodyakov, D. (2007). Trust as a process: A three-dimensional approach. *Sociology*, 41(1), 115-132.
- Ko, J. R. (2003). Contingent and internal employment systems: Substitutes or complements? *Journal of Labor Research*, XXIV(3), 473-490.
- Korczynski, M. (2000). The political economy of trust. *Journal of Management Studies*, 37(1), 1-21.
- KPMG. (2010). *The big opportunities and challenges facing New Zealand agriculture: Reflections on the views of industry leaders*. New Zealand: KPMG Agribusiness Agenda. Retrieved from <http://www.kpmg.com/NZ/en/IssuesAndInsights/ArticlesPublications/Documents/Agribusiness-Agenda-3MB.pdf>
- Kritzinger, A., Barrientos, S., & Rossouw, H. (2004). Global production and flexible employment in South African horticulture: Experiences of contract workers in fruit exports. *Sociologia Ruralis*, 44(1), 17-39.

- Kunda, G., Barley, S. R., & Evans, J. (2002). Why do contractors contract? The experience of highly skilled technical professionals in a contingent labor market. *Industrial and Labor Relations Review*, 55(2), 234-261.
- Kyte, R. (2008). *A different approach to staffing in the dairy industry*. Paper presented at the 2008 South Island Dairy Event (SIDE) Conference . Retrieved from http://www.side.org.nz/IM_Custom/ContentStore/Assets/9/13/9b849d75f6c17f5c72ed51f4eaad9c21/More%20staff%20Kyte.pdf
- Lee, D. R. (1996). Why is flexible employment increasing? *Journal of Labor Research*, 17(4), 543-554.
- Lobley, M., & Potter, C. (2004). Agricultural change and restructuring: Recent evidence from a survey of agricultural households in England. *Journal of Rural Studies*, 20(4), 499-510.
- Louisson, M. (2001). *Communicating environmental, safety and health law to small businesses in New Zealand: The fundamental missing link*. Unpublished master's thesis, University of Victoria, Wellington.
- Lovelock, K., & Cryer, C. (2009). *Effective occupational health interventions in agriculture* (Summary report No. 5). Dunedin, New Zealand: Injury Prevention Research Unit, University of Otago. Retrieved from <http://www.otago.ac.nz/ipru/ReportsPDFs/OR72.pdf>
- MAF. (2008). *Situation and outlook for New Zealand agriculture and forestry (August 2008)*. Retrieved from <http://www.maf.govt.nz/mafnet/rural-nz/statistics-and-forecasts/sonzaf/2008/tables/A-11.xls>
- MAF. (2009). *Meat: The Future - Opportunities and challenges for the New Zealand sheepmeat and beef sector over the next 10 to 15 years*. Wellington, New Zealand: Ministry of Agriculture and Forestry. Retrieved from <http://www.maf.govt.nz/mafnet/publications/meat-the-future/mss-report-2009.pdf>
- Martin, S., & McLeay, F. (1998). The diversity of farmers' risk management strategies in a deregulated New Zealand environment. *Journal of Agricultural Economics*, 49(2), 218-233.
- McCrostie Little, H., & Taylor, N. (1998). *Issues of New Zealand farm succession: A study of intergenerational transfer of the farm business* (MAF Policy Technical Paper No. 97/4a). Wellington, New Zealand: Ministry of Agriculture and Forestry. Retrieved from <http://www.maf.govt.nz/mafnet/rural-nz/people-and-their-issues/social-research-and-welfare/farm-succession/succn98.pdf>
- McCrostie Little, H., Taylor, N., & McClintock, W. (1997). "Unpaid" farm work: A scoping study (MAF Policy Technical Paper No. 97/21). Wellington, New Zealand: Ministry of Agriculture and Forestry.
- McDermott, A., Saunders, C., Zellman, E., Hope, T., & Fisher, A. (2008). *New Zealand agribusiness: Structure, conduct and performance: Sheep meat - the key elements of success and failure in the NZ sheep meat industry from 1980-2007*. New Zealand: Agribusiness Research and Education Network. Retrieved from <http://www.aren.org.nz/docs/sheepmeat-technical-report.pdf>

- McKeown, T., & Hanley, G. (2009). Challenges and changes in the contractor workforce. *Asia Pacific Journal of Human Resources*, 47(3), 295-317.
- McKinnon, N., Bryden, J. M., Bell, C., Fuller, A. M., & Spearman, M. (1991). Pluriactivity, structural change and farm household vulnerability in Western Europe. *Sociologia Ruralis*, 31(1), 58-71.
- McLaren, E. (2004). Employment insecurity? In P. Spoonley, A. Dupuis & A. de Bruin (Eds.), *Work and working in twenty-first century New Zealand* (pp. 232-235). Palmerston North, New Zealand: Dunmore Press.
- Michie, J., & Sheehan, M. (2003). Labour market deregulation, 'flexibility' and innovation. *Cambridge Journal of Economics*, 27(1), 123-143.
- Morris, C., Loveridge, A., & Fairweather, J. R. (1995). *Understanding why farmers change their farming practices: The role of orienting principles in technology transfer*. (Research Report No. 232). Lincoln University, New Zealand: Agribusiness and Economics Research Unit.
- Morriss, S., Tipples, R., Townshend, W., MacKay, B., & Eastwood, C. (2001). *Skill and labour requirement in the primary sector: "People make the difference"* (Report prepared for the Ministry of Agriculture and Forestry). New Zealand: Massey University & Lincoln University.
- Mouton, N., & Korkie, P. (2000). The dynamics of the New Zealand family farm. *Primary Industry Management*, 3(4), 15-18.
- Moynihan, H. (2008). *Rabobank global focus. New Zealand's meat industry – adapting to change*. (Industry Report). Christchurch, New Zealand: Rabobank.
- Mulet-Marquis, S., & Fairweather, J. R. (2008). *Rural population and farm labour change* (Research Report No. 300). Lincoln University, New Zealand: Agribusiness and Economics Research Unit.
- Murray-Prior, R. B., Hart, D., & Dymond, J. (2000). An analysis of farmer uptake of formal farm management training in Western Australia. *Australian Journal of Experimental Agriculture*, 40(4), 557-570.
- Murray, N. (2006). Knowledge and skill 'down on the farm': Skill formation in New Zealand's agriculture sector. *New Zealand Journal of Employment Relations*, 31(1), 17-36.
- Neave, R. (2010, March 1). Beware the handshake deal. *The Press*, p. A11.
- Nettle, R., Paine, M., & Petheram, J. (2005). The employment relationship – a conceptual model developed from farming case studies. *New Zealand Journal of Employment Relations*, 30(2), 19-35.
- Neuman, W. L. (2005). *Social research methods: Qualitative and quantitative approaches* (6th ed.). Boston, USA: Pearson Education.
- NZ Agritech. (2008). *Excellence: Subsidy-free and profitable agriculture*. Retrieved from <http://www.agritech.org.nz/subsidy.shtml>

- NZ Transport Agency. (2009). *Agricultural vehicles' guide*. Wellington, New Zealand: New Zealand Transport Agency.
- Oldfield, Y., Fryer, G., & Haynes, P. (2001). *New Zealand employment relations* (2nd ed.). Auckland, New Zealand: Longman.
- Palva, R. (2007). Agricultural contracting in Finland. *Teho*, (5), 15-17, 45-46.
- Parker, W. (2009). New Zealand agriculture - looking beyond the present. *Primary Industry Management*, 13(1), 3-5.
- Parminter, I. (1997). *Off-farm income: Theory and practice* (MAF Policy Technical Paper No. 97/5). Wellington, New Zealand: Ministry of Agriculture and Forestry. Retrieved from <http://www.maf.govt.nz/mafnet/rural-nz/profitability-and-economics/employment/off-farm-income-theory-and-practice/>
- Parton, R. (2010). Contractors need a voice as regulation grows. *Rural Contractor and Largescale Farmer*, (113), 6.
- Peel, S., & Boxall, P. (2005). When is contracting preferable to employment? An exploration of management and worker perspectives. *Journal of Management Studies*, 42(8), 1675-1697.
- Peel, S., & Inkson, K. (2000). Economic deregulation and psychological contracts: The New Zealand experience. In D. M. Rousseau & R. Schalk (Eds.), *Psychological contracts in employment: Cross-national perspectives* (pp. 195-212). Thousand Oaks, California: Sage Publications.
- Poole, O. (2010). *What opportunities exist to create a new model with significant commercial gains on a sustainable and enduring basis for all stakeholders in the meat industry?* Unpublished lecture notes, July 22. Chairman, Alliance Group, guest lecturer for MGMT 340 Agribusiness Strategic Management. Lincoln University, New Zealand.
- Potter, M. (1985). Agricultural contractors. *Agricultural Manpower*, 2(11), 33-41.
- Pullin, B., & Tipples, R. (2008). The New Zealand Shearing industry - A case study. *Employment Relations Record*, 8(1), 68-90.
- Rasmussen, E., & Lamm, F. (2002). *An introduction to employment relations in New Zealand* (2nd ed.). Auckland: Pearson Education New Zealand.
- Rhodes, D., & Journeaux, P. (1995). *Off-farm income survey: 1992/93 financial year* (MAF Policy Technical Paper No. 95/6). Wellington, New Zealand: Rural Resources, Ministry of Agriculture and Forestry.
- Robertson, N. J., Perkins, H. C., & Taylor, N. (2007). Multiple job holding: interpreting labour market change and economic diversification in rural communities. *Sociologia Ruralis*, 48(4), 331-350.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Rousseau, D. M., & Schalk, R. (2000a). Introduction. In D. M. Rousseau & R. Schalk (Eds.), *Psychological contracts in employment* (pp. 1-28). California: Sage Publications.

- Rousseau, D. M., & Schalk, R. (2000b). Learning from cross-national perspectives on psychological contracts. In D. M. Rousseau & R. Schalk (Eds.), *Psychological contracts in employment: Cross national perspectives* (pp. 283-304). California: Sage Publications.
- Sanderson, K., & Webster, M. (2009, September). *Economic analysis of the value of pasture to the New Zealand economy* (Report to Pasture Renewal Charitable Trust). Wellington, New Zealand: Business and Economic Research Limited.
- Sandrey, R., & Vink, N. (2007). The deregulation of agricultural markets in South Africa and New Zealand: A comparison. *Agrekon*, 46(3), 323-350.
- Saunders, C., & Zellman, E. (2007). *Road miles associated with agricultural production* (Commissioned by E.J. Brenan Trust). Lincoln University, New Zealand: Agribusiness and Economics Research Unit.
- Seifert, H., & Tangian, A. (2006). *Globalization and deregulation: Does flexicurity protect atypically employed?* Paper presented at the International Labour Process Conference, April 10-12. Retrieved from http://www.boeckler.de/pdf/p_wsi_diskp_143.pdf
- Shadbolt, N., & Rawlings, M. (1999). Balancing priorities: Measures of success not only economic but personal, family and off-farm interests and goals. *Dairyfarming Annual*, 51, 179-191.
- Share, P., Campbell, H., & Lawrence, G. (1991). The vertical and horizontal restructuring of rural regions: Australia and New Zealand. In M. Alston (Ed.), *Family farming: Australia and New Zealand Keypapers No. 2* (pp. 1-23). Wagga-Wagga, NSW, Australia: Centre for Rural Studies.
- Sharp, J. S., & Smith, M. B. (2003). Social capital and farming at the rural-urban interface: The importance of nonfarmer and farmer relations. *Agricultural Systems*, 76(3), 913-927.
- Shrider, J. (2007). The challenges facing contractors to achieve higher levels of mechanisation: The New Zealand experience. *NZ Journal of Forestry*, 52(2), 6-14.
- Sibbald, P. (2004, October 22). Clarity needed on taxable and tax-free allowances. *Rural News*. Retrieved from http://www.knowledge-basket.co.nz.ezproxy.lincoln.ac.nz/search/doc_view.php?d1=magz/text/rnews/2004/10/7490.html
- Silcock, P. (1997). The real cost of labour. *Commercial Grower*, 52(3), 10-12.
- Smart, S. (2009, April). Keep lifestyle bonus a secret, won't you! . *Country-Wide*.
- Smith, W., & Montgomery, H. (2003). Revolution or evolution? New Zealand agriculture since 1984. *GeoJournal*, 96, 107-118.
- Smith, W., & Saunders, C. (1995). Agricultural policy reforms and sustainable land management: A New Zealand case study. *Australian Geographer*, 26(2), 112-118.
- Speight, M. (2005). Improving labour productivity for sustainable farming. *Primary Industry Management*, 8(3), 39-40.

- Spoonley, P. (2004). Is non-standard work becoming standard? Trends and issues. *New Zealand Journal of Industrial Relations*, 29(3), 3-24.
- Spoonley, P., Dupuis, A., & de Bruin, A. (Eds.). (2004). *Work and working in twenty-first century New Zealand*. Palmerston North, New Zealand: Dunmore Press.
- Stallard, J. (1998). Farm hazards and the Health and Safety in Employment Act. *Victoria University of Wellington Law Review*, 28(2), 441-466.
- Statistics New Zealand. (2009). *Business operations survey: 2009*. Wellington, New Zealand: Statistics New Zealand. Retrieved from http://www.stats.govt.nz/browse_for_stats/businesses/business_growth_and_innovation/businessoperationsurvey_hotp2009.aspx
- Stevens, R., Roth, H., Small, B., & White, T. (2007). *Career and training pathways* (Prepared for the Human Capability in Agriculture and Horticulture Group). New Zealand: Lincoln University & AgResearch Limited.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, California: Sage Publications.
- Taylor, N., McClintock, W., Baines, J., & Newell, J. (2004). Multiple job holding in the agricultural sector. *New Zealand Journal of Employment Relations*, 29(3), 67-82.
- Tipples, R. (1987). Labour Relations in New Zealand Agriculture. *Sociologia Ruralis*, XXVII(1), 38-54.
- Tipples, R. (1996). Contracting: The key to employment relations. *International Employment Relations*, 2(2), 19-41.
- Tipples, R. (2004). The Human Capability Framework – An important and useful framework for understanding the labour market? *New Zealand Journal of Employment Relations*, 29(1), 3-20.
- Tipples, R. (2005). Self-management and managing employees. In N. Shadbolt & S. Martin (Eds.), *Farm management in New Zealand* (pp. 182-200). Australia: Oxford University Press.
- Tipples, R. (2008). Editor's Note: Changing rural employment - A conceptual overview. *Employment Relations Record*, 8(1), i-viii.
- Treu, T. (1992). Labour flexibility in Europe. *International Labour Review*, 131(4-5), 497-512.
- Tucker, D. (2002). *'Precarious' non-standard employment - A review of the Literature*. Wellington, New Zealand: Labour Market Policy Group, Department of Labour. Retrieved from <http://www.dol.govt.nz/pdfs/PrecariousNSWorkLitReview.pdf>
- van den Bergh, R. (2009, August 20). Topdressing cost-cutting toll rises. *The Dominion Post*, p. C1.
- Walter, D., & Tipples, R. (2007). *Agricultural contracting services - An initial investigation* (Unpublished working paper). Lincoln University, New Zealand: Agricultural Group, AGLS Division.

- Wilson, O. (1994). 'They changed the rules'. Farm family responses to agricultural deregulation in Southland, New Zealand. *New Zealand Geographer*, 50(1), 3-13.
- Wright, J., & Bennett, R. (1993). *Agricultural contracting in the United Kingdom* (Special Studies in Agricultural Economics No. 21). Reading, United Kingdom: Department of Agricultural Economics and Management, University of Reading.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, California: Sage Publications.
- Zega, N. (2009). Acres and pains. *University of Otago Magazine*, (Sept/Oct 2009), 23-27.

Appendix A

Information Sheets and Consent Form

A.1 Research Information Sheet for Farmers

Research Information Sheet for Farmers

THE ROLE OF THE RURAL CONTRACTOR IN FLEXIBLE LABOUR USE ON SOUTH ISLAND SHEEP AND BEEF FARMS

You are invited to contribute to the above project which is the research section of a Masters of Applied Science at Lincoln University.

WHAT IS THIS PROJECT ABOUT?

The aim of this project is to gain an exploratory overview of the rural contracting industry and its relationship with the farmers it services. The information gained will provide a greater depth of knowledge about the two industries and their interaction, and will provide directions for further research.

WHY IS IT NEEDED?

The sheep and beef farming sector continues to be an important contributor to the New Zealand economy. Part of its success has to be attributed to the wide rural contracting industry that services it. Presently there are no statistics and few survey results to provide evidence of the size and importance of the contracting industry. This project hopes to collect information which will enable an overview of the industry to be compiled.

HOW WILL IT BE DONE?

A questionnaire administered through the Rural Contractors Association will provide an overview of that sector. This will be followed up by in-depth interviews with both sheep and beef farmers and a range of rural contractors to provide a picture of the relationships between the two industries.

YOUR CONTRIBUTION?

You will be asked to undertake an interview of about one hour to talk about your farm and how you decide on the labour mix that you currently use. If you use contractors the interview will investigate your relationship with these people. The interview will be recorded, with your permission.

You will be asked to sign a consent form to acknowledge your voluntary participation in this study. You may decline to answer any question or to finish the interview at any time. Until 30 October 2009 you may withdraw any information given and your interview transcript will be destroyed.

Your confidentiality is assured with access to your consent forms and the information you provide being restricted to my supervisors and me. Hard copy material will be stored under lock and key, and computer-stored information will be password protected. The written report will have all individual identifying features removed to ensure your anonymity.

Thank you for your willingness to participate in this research project.

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A.2 Research Information Sheet for Contractors

Research Information Sheet for Contractors

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A questionnaire administered through the Rural Contractors Association will provide an overview of that sector. This will be followed up by in-depth interviews with both sheep and beef farmers and a range of rural contractors to provide a picture of the relationships between the two industries.

YOUR CONTRIBUTION?

You will be asked to undertake an interview of about one hour to talk about your contracting business and your relationship with the farmers you service. The interview will be recorded, with your permission.

You will be asked to sign a consent form to acknowledge your voluntary participation in this study. You may decline to answer any question or to finish the interview at any time. Until 30 October 2009 you may withdraw any information given and your interview transcript will be destroyed.

Your confidentiality is assured with access to your consent forms and the information you provide being restricted to my supervisors and me. Hard copy material will be stored under lock and key, and computer-stored information will be password protected. The written report will have all individual identifying features removed to ensure your anonymity.

Thank you for your willingness to participate in this research project.

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A.3 Consent Form

Consent Form

THE ROLE OF THE RURAL CONTRACTOR IN FLEXIBLE LABOUR USE ON SOUTH ISLAND SHEEP AND BEEF FARMS

I have read and understood the description of the above named project. I agree to participate as a subject in this research project, and I consent to the publication of the results of the project on the understanding that my anonymity will be preserved and all my personal details will remain confidential. I consent to the interview being recorded using a digital recording device. I understand that I can withdraw my contribution from the project at any time up until the 30 October 2009.

Name: _____

Signed: _____

Date: _____

Appendix B

Interview Guide sheets

B.1 Interview Guide Sheet for Farmers

Interview Guide Sheet for Farmers

THE ROLE OF THE RURAL CONTRACTOR IN FLEXIBLE LABOUR USE ON SOUTH ISLAND SHEEP AND BEEF FARMS

Demographic Information

- Location
- Age
- Family
- Off-farm employment
- Education
- Career

Farm Information

- Size
- Employees
- Stock: Sheep/Cattle/Deer/ Other

1. Tell me about your way of farming
2. Farming background – how did you end up on this particular farm?
3. Non-pastoral activities
4. In what way have you changed your farming practices over the last 10 years or so? Reasons.
5. What would you see as the ideal labour arrangement on your farm in the future?
6. **(Give the contracting list)** Now, considering your use of contract labour can you talk about any issues that arise concerning the use of each form of contractor?
 - Timeliness
 - Cost
 - Skills
 - Advice/experience
 - Lack of familiarity with farm
7. How do you choose your contractors
8. What do you know about your legal responsibilities when a contractor comes onto your farm?
9. Have you had any “interesting experiences” with contractors?
10. In what ways do you see the use of contractors as risk minimising or risk increasing?

B.2 Contracting Services List for Farmers

Rural Contracting Services		
Livestock	Contracting costs	Comments
Scanning		
Shepherding/Lambing		
Mustering		
Shearing/Crutching		
Dipping/Spraying		
Tailing/Docking		
Drenching		
Transport		
Agistment/grazing		
Crop Production/ Pasture renewal		
Direct drilling		
Ploughing		
Planting/Drilling/Sowing		
Cultivating		
Harvesting		
Spraying		
Drying		
Seed cleaning/dressing		
Storage		
Cartage		
Forage Production		
Mowing only		
Hay making		
Silage		
Balage		
Other		
Fencing		
Fertiliser spreading		
Nutrient monitoring		
Hedgecutting		
Drainage		
Soil moisture monitoring		
Roading		
Land development		
Other Cartage		
Forestry work		
Professional		
Accountant		
Legal advice		
Veterinary services		
Farm consultant		
Employment consultant		
TOTAL contracting costs		
TOTAL operating costs		
Gross Income/turnover		

B.3 Interview Guide Sheet for Contractors

Interview Guide Sheet for Rural Contractors

THE ROLE OF THE RURAL CONTRACTOR IN FLEXIBLE LABOUR USE ON SOUTH ISLAND SHEEP AND BEEF FARMS

Demographic Information

- Contractor No.
- Location
- Age

Business Information

- Business structure
 - Other businesses/farm ownership
 - How important it the contracting business in relation to all your business activities
 - Family involvement
 - Services offered
 - Area serviced
 - Types of farms/businesses serviced
 - Level of investment/ Annual reinvestment
1. Tell me how it is that you became a contractor.
 2. Tell me about the staffing of your business.
 3. The training issues relating to your business – for you personally and for your staff
 4. What skills are you looking for needed
 5. Tell me about your relationship with farmers; what are the main issues?
 6. What are the problems facing your business?
 7. What are the problems facing your industry?
 8. What do you think your industry needs to ensure a good future?

Appendix C

Survey Questionnaire

Rural Contractor Questionnaire

Operating District:
Years spent Contracting:

1. How did you become a rural contractor?
Please give a brief indication of your background and the circumstances that led you to become a contractor.

2. Please describe your current rural contracting business under the following headings:

i. Business structure:

company partnership sole trader

Approximately what percentage does your contracting business contribute to your

total income: _____% Do you farm? Yes/No Type: _____

ii. Clients: – please give an approximate percentage for each group based on the percentage they contribute to your business in dollar terms:

Sector	%
Dairy	
Sheep/beef	
Arable	
Smallholdings	
Other – rural (e.g. forestry)	
Other - non-rural	

iii. Type: What services do you offer?

(Tick the boxes)

Balage/silage/hay-making	Fencing
Harvesting of crops	Hedge-cutting
Cultivation/direct drilling	Livestock transport
Fertiliser spreading	Livestock handling
Drainage	Agrichemical application
Land development	Other:
Farm Roads/ site construction	Other:

iv. Skills/Innovation: Do you offer any special skills and/or innovations to your clients? Please describe them.

v. **Approximate investment in plant and machinery**(Tick the box):

Total Investment

Annual Reinvestment

Less than \$250,000	
\$250,000 to \$499,999	
\$500,000 to \$1.5m	
More than \$1.5m	

Less than \$25,000	
\$25,000 to \$199,999	
\$200,000 to \$499,999	
More than \$500,000	

vi. **Staffing: In any one year:**

What is the maximum and minimum number of employees you would have?

How many seasonal and how many casual employees might you employ?

How many overseas staff might you employ/year on average?

3. Please consider the **skills and training** that are required in your particular business

i. What relevant experience or training do you have for your business?

ii. What training might you like to undertake, if time was available?

iii. What training or skills do you ideally like your employees to have?

4. What are the main issues that arise for you in your relationship with farmers?

5. What are the main problems that your business faces?

6. What does the rural contracting industry need in the future in order to survive/ grow/ become more profitable?

7. What are your predictions for the future for your own business?

	Tick	Reason:
Grow		
Stay the same		
Decline		

8. Are there any other comments relating to rural contracting that you would like to make?