

**IMPLICATIONS OF NEW LABOUR
LEGISLATION FOR COMMERCIAL AGRICULTURE
IN KWAZULU-NATAL**

By

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I hereby certify that, unless specifically indicated to the contrary in the text, this thesis is the result of my original own work.



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ABSTRACT

New labour legislation was introduced to agriculture in September 1993. This study examines the effects of the new legislation on agriculture, mainly in terms of increased farmers' transaction costs when dealing with labourers. The new legislation introduced to agriculture includes the Basic Conditions of Employment Act (BCEA), Unemployment Insurance Act (UIA) and Agricultural Labour Act (ALA).

Data were collected via a postal survey of 450 commercial farmers in KwaZulu-Natal (including 150 sugar-cane farmers, 150 dairy farmers and 150 beef farmers), of whom 135 returned usable questionnaires. The questionnaire dealt with the financial and labour structures on the farm, implementation of the new legislation, use of contractors, impact of minimum wages, education and trade unions.

The supply of labour to agriculture in South Africa is relatively elastic, due to the high percentage of unemployed people. An increase in the cost of labour may cause farmers to use more substitutes, such as machinery, new technologies and contractors.

The study examines machinery and labour contracting in commercial agriculture in KwaZulu-Natal and to what extent new labour legislation may affect farmers' attitudes towards the use of contractors. Descriptive statistics show employment of contractors, impact of enterprise type on use of contractors, and farming activities which are contracted out. Logistic regression suggests that on-farm implementation of new labour legislation, enterprise type, age of the respondent and turnover (farm size) influence a farmer's decision whether or not to contract in machinery

contractors.

New labour legislation has affected the structure of labour on commercial farms in KwaZulu-Natal by increasing transactions costs between labourer and farmer, and by raising wages; for example, farmers now have to pay overtime rates for work after-hours and on Sundays. Survey respondents indicated that, if minimum wages were imposed, cash wages would be paid and perquisites would be charged for. If the minimum wage was set above present wages, labour would be replaced with machinery and contractors. Respondents would prefer an industrial council to determine minimum wages (if they are imposed), accounting for enterprise and regional differences.

Study results show that average cash wages for general (unskilled) farm labour are negatively related to distance between the farm and nearest large town or city, and positively related to turnover (farm size) and application of the new legislation. Enterprise type influenced the cash wage, value of rations paid to general farm labour and the provision of land rights for workers. Substitution of cash for non-cash benefits, and capital for labour may occur if the new legislation is strictly enforced.

Farmers feel that there are a number of management problems they face in the future, involving labour, unions, government and finance. Future opportunities include marketing, export of produce, and labour upliftment and training.

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INTRODUCTION

The objective of this study is to evaluate the effects of new labour legislation (enacted in 1993) on commercial agriculture in KwaZulu-Natal. The issue of labour in agriculture has always been a contentious one. As farmers in the past formed a strong lobbying group, they were able to restrict the introduction of new labour legislation in agriculture. Labourers' bargaining power in South Africa was reduced due to the large supply of labour, minimal protection by legislation and farmers' having monopsony power in the short run.

Lately, new legislation pertaining to agricultural labour has been implemented in South Africa, and includes the Unemployment Insurance Act, Basic Conditions of Employment Act and the Agricultural Labour Act. This was brought about mainly through changes in the political climate in South Africa. These laws have been designed to improve farm labourers' living and working conditions.

The agricultural labour issue in South Africa and KwaZulu-Natal has been researched before by Goedecke and Ortmann (1992), Robertson and Nieuwoudt (1992), Marcus (1991), Van Zyl *et al* (1987) and others. But since these studies were undertaken, new labour legislation has been promulgated, thus changing the farmer-labourer relationship.

In this study relevant labour economics and the impacts of new labour legislation are discussed, particularly with respect to transaction costs. These costs deal with the search for information, bargaining with labour and their unions, policing and enforcement of rules, use of contractors (specialists who do a specific job on the farm) and labour employment (Goedecke and Ortmann,

1993). Factors influencing the use of machinery contractors as well as payment of wages, rations and affording of land rights to labour are also studied. Data obtained from a postal survey of 135 commercial farmers in KwaZulu-Natal form the basis of the study.

Chapter 1 outlines economic principles regarding labour employment. As labour becomes relatively more expensive, it is replaced with different forms of labour-saving technologies, such as machinery and contractors. This discussion is followed by a brief overview of agriculture, labour employment and the new labour legislation in South Africa and KwaZulu-Natal (Chapter 2). Aspects of the survey, data collection, farm structure and the implementation of the new legislation are reviewed in Chapter 3.

The use of labour and machinery contractors by farmers in KwaZulu-Natal is reviewed in Chapter 4. Factors influencing the adoption of machinery contractors are analysed. The understanding of labour remuneration and its impacts on employment are important, particularly if minimum wages are to be introduced into agriculture. An analysis of factors influencing labour wages, rations and land rights is presented in Chapter 5. Farmers' perceived management problems and opportunities in the future are reviewed in Chapter 6. The study ends with a presentation of policy implications and conclusions.

CHAPTER 1

LABOUR ECONOMICS

The supply of labour to agriculture in South Africa is relatively elastic due to the high percentage of unemployed people (Nieuwoudt, 1984). There is a large pool of labourers available and willing to work at the going wage. The size of the labour pool relative to the number of workers employed is influenced by the following factors:

- (1) Stage of economic development of the economy;
- (2) social and cultural role of women;
- (3) stage of the business cycle; and
- (4) institutional and legal framework of the economy.

(Griffiths and Jones, 1980).

The actual amount of labour that is forthcoming is determined by the length of the working day, level of remuneration and the general preference structure of workers. These factors play a major role in the supply of labour to agriculture, as does the quality of labour which is influenced by education and the general state of health of the population (Griffiths and Jones, 1980). Public and private expenditure on education and health could increase the quality of labour available, depending on the size and type of these investments.

Labour is like any other factor of production; a firm's purchase of labour and other factors depends on the price of the factor in question, technical conditions of production and demand for the product made by the factor (labour) (Lipsey, 1987). Friedman (1962) stated that the derived demand for a factor will be more inelastic (1) the more essential the factor in question, (2) the smaller the fraction of total costs that goes to the factor in question, (3) the more inelastic

the supply curve of other factors and (4) the more inelastic the demand for the final product. Nieuwoudt (1984), citing Hattingh, says labour may be considered the most important resource in agriculture. As the relative cost of labour increases it is substituted with machinery (capital). This will occur until the price ratio of labour to capital is equal to the ratio of the marginal product of labour to the marginal product of capital.

In Figure 1.1 the effect of a change in the cost of labour is evident. The ratio of the marginal product of labour to marginal product of capital is measured along the vertical axis, while the ratio of labour to capital is measured along the horizontal axis. Assume that the initial ratio of labour to capital is OZ, then OZVX measures the share of labour relative to capital in the total expenditure on capital and labour. If the cost of labour increases and the ratio of labour to capital falls to OY, OYUW is formed. The elasticity of substitution measures how responsive the factor mix is to changes in the cost of labour. It is an indication of the extent to which one input substitutes for another, thus providing an indication of the shape of an isoquant. Allen, cited by Van Zyl (1986a:62), uses the standard Hicksian definition of elasticity of substitution, but has also developed an alternative measure of his own linked to the own and cross-price constant output factor demand elasticity. This forms the base for other definitions of the elasticity of substitution; for example, the Morishima elasticity of substitution and the shadow elasticity of substitution. If $E_s = 1$ there is no change to labour's share relative to capital. If $E_s > 1$ there is a significant change in labour's share relative to capital, that is labour is substituted with capital (where E_s is defined as the Hicksian elasticity of substitution). Van Zyl (1986b) estimated the Allen elasticity of substitution for labour and machinery to be +6.035 for the period 1973-1985. The elasticity is positive indicating that labour and machinery were substitutes during the period.

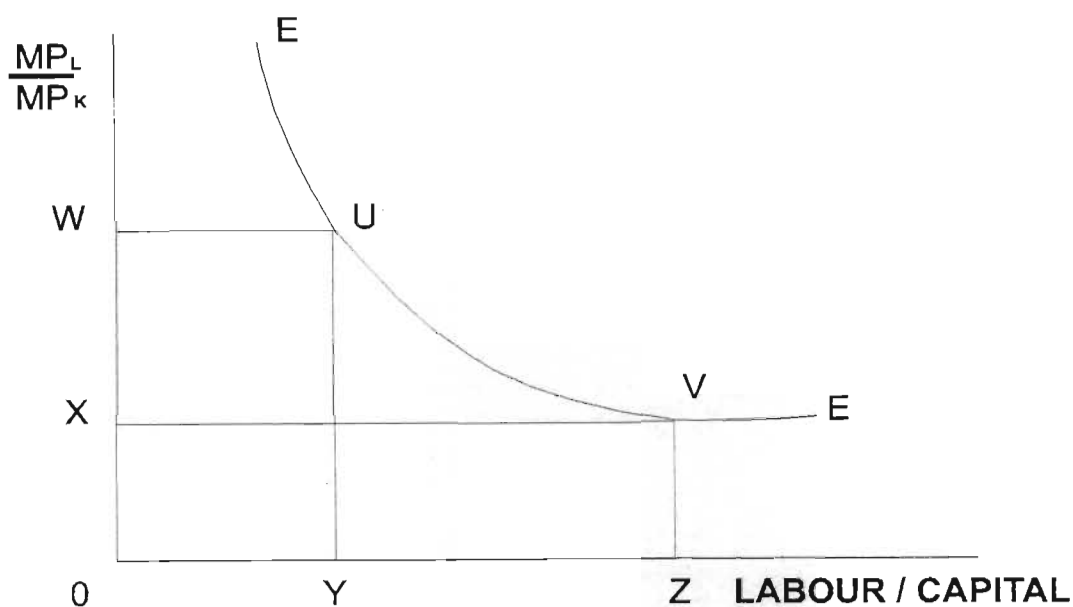


FIGURE 1.1: Elasticity of substitution between labour and capital (Griffiths and Jones, 1980).

As the price of unskilled labour increases, unskilled labour is replaced with more skilled labour which becomes relatively cheaper. There is also increased input substitution; for example capital. The introduction of new labour legislation increases the cost of labour through increased transaction costs, housing costs, overtime payments, unemployment insurance fund payments and other costs.

When transaction costs are very high, bargaining is not feasible and the efficient allocation of resources can be obtained only by a court assigning the right to the person who would have ended up with it, had bargaining been feasible (Goedecke and Ortmann, 1993). Transaction costs may be so high that there is an absence of exclusive rights and of contracting amongst individuals. These costs may include negotiating market transactions, checking information, writing a contract, executing and policing contracts, and remedying broken contracts (Goedecke

and Ortmann, 1993). High transaction costs lead farmers to change their factor mix; for example, by substituting labour with machinery, contractors or other inputs (Figure 1.2).

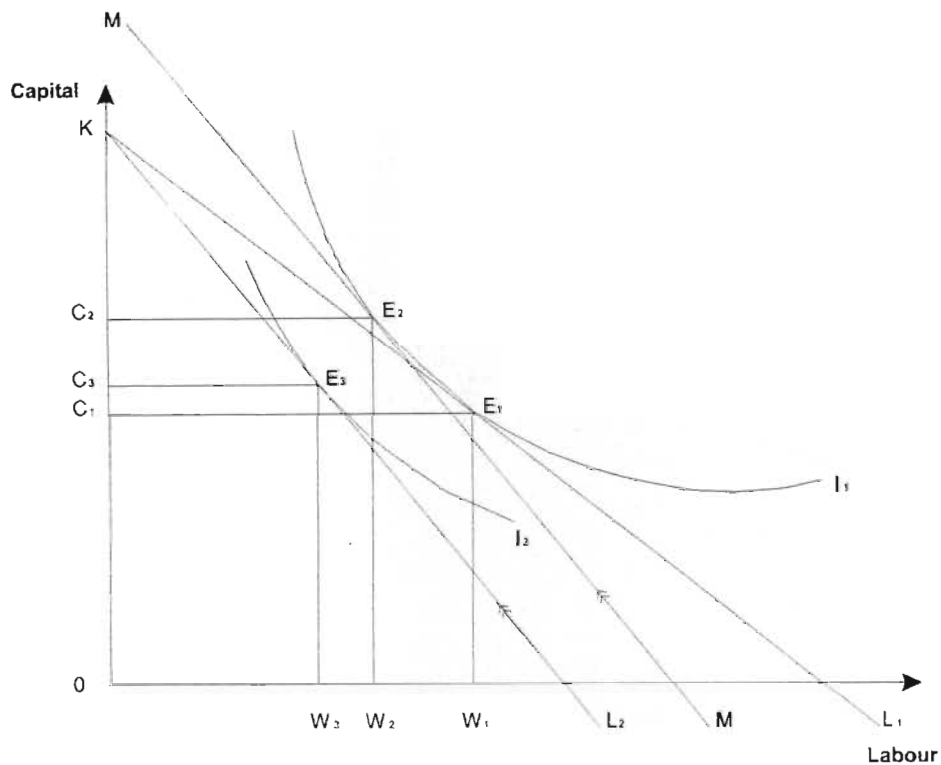


FIGURE 1.2: The effect of a change in the cost of labour on the composition of factor inputs on the farm (Griffiths and Jones, 1980).

As labour costs increase with the introduction of new labour legislation the farm will reduce employment of labour, i.e. OL_2 units of labour are purchased instead of OL_1 . E_1 was the initial equilibrium, the new equilibrium is E_3 , the point of tangency between the isoquant I_2 and the isocost line KL_2 . It can be shown therefore that the quantity of labour employed drops from OW_1 to OW_3 and production drops from isoquant I_1 to I_2 . Production falls as the farm's purchasing power has been reduced and the farmer is therefore unable to produce on isoquant I_1 .

An imaginary isocost line (MM) is introduced which compensates the firm for any change in real purchasing power (increase in the cost of labour). The change in purchasing power reduces the farm's production possibility; this imaginary isocost compensates the farmer for this and shows the factor input combination at the old level of production, but with new relative prices. If the farm maintains production at the old level employment will fall from OW_1 to OW_2 and the use of capital will increase from OC_1 to OC_2 (substitution effect).

The introduction of new legislation to agriculture could cause an increase in labour supply to agriculture, especially unskilled labour, due to more pleasant working and perceived pay conditions. Labour demand could also drop as labour becomes relatively more expensive. The introduction of this legislation could have a similar effect on labour employment in agriculture as minimum wage legislation, where a minimum wage in agriculture leads to decreased employment of unskilled labour in agriculture (Gallasch, 1975; Gardner, 1972; Watanabe, 1976; Lianos, 1972). There are two negative effects of minimum wages which result in a decline in employment, namely (1) a direct effect where labour is substituted with non-labour inputs which have become relatively cheaper, and (2) an indirect effect through substitution in consumption as the product produced using the labour becomes relatively expensive, *ceteris paribus* (Lianos, 1972). Family labour may substitute for hired labour if the opportunity cost of family labour is less than the minimum wage to be paid to a hired labourer. This in a way evades the legislation as the farmer does not have to pay family members the minimum wage. As a result of effective minimum wages on agriculture one would expect a reduction in the number of hired labourers, a reduction in total farm employment and an increase in the ratio of family labour to hired labour (*ibid*). The minimum wage also increases the average wage rate in agriculture for those labourers that remain in agriculture (Gallasch, 1975).

CHAPTER 2

AGRICULTURE, LABOUR EMPLOYMENT AND NEW LABOUR LEGISLATION IN KWAZULU-NATAL

As with the rest of South Africa, agriculture in KwaZulu-Natal is dualistic in nature, with a commercial sector and a subsistence sector (Fenyesh, 1988). These sectors differ in their production practices with respect to employment of labour and capital. The cause of this anomaly lies largely with South Africa's previous political dispensation. Laws were introduced to control the movement of the black labour force (influx controls), to restrict the black populous from owning land in white areas and to restrict entry into the job market unless a job was reserved for the person in question (job reservation). These laws and other factors (for example, land rights) caused a large number of people to be displaced to a relatively small area of land, thereby causing degradation of agricultural resources and reduced productivity.

2.1 Land structure

Approximately 81 236 million ha of land are used for agriculture in South Africa, of which 3 897 million ha are commercially farmed in KwaZulu-Natal (approximately 5 percent). In this province there are close to 5900 commercial farming units which are managed by 5152 farmers (Central Statistical Service, 1992).

The number of commercial farms in KwaZulu-Natal has decreased over the past 30 years from 9645 in 1960 to 5900 in 1992. The decrease has come about due to changes in technologies, mechanisation and the structure of agriculture (freeing of produce markets and movement from

labour intensive to capital intensive production). The introduction of new labour-saving technologies and machinery has enabled farmers to cultivate greater areas of land thus taking advantage of economies of size. Farmers with high cost structures and who could not adapt to decreasing real product prices over time were forced out of production.

The major agricultural enterprises in KwaZulu-Natal are sugar-cane, maize, beef, dairy and timber. Sugar-cane is farmed mainly in Zululand, the coastal belt and in the Midlands. Maize is farmed mainly in Northern Natal. Beef, dairy and timber are distributed throughout the province.

2.2 Labour and agriculture

Agriculture is a major employer of labour in the South African economy. In 1988 there were 4,5 million people living on commercial farms, of whom 1,2 million actually worked on the farms (Directorate Agricultural Information, 1988). As of 1992 there were 1,051 million workers employed in agriculture, who support approximately four million people (Central Statistical Services, 1992). In KwaZulu-Natal there are approximately 165 070 employees of whom 121 800 are regular employees (work for more than three days a week) and 43 270 casual or seasonal workers (Central Statistical Services, 1992). Agriculture contributed approximately 4,6 percent to the gross domestic product (GDP) of South Africa in 1993 (Directorate Agricultural Information, 1995).

Table 2.1: Employment statistics for South African and KwaZulu-Natal agriculture, 1985 - 1992.

YEAR	SOUTH AFRICA	KWAZULU-NATAL
1985	1 336 000	237 000
1986	1 346 000	225 000
1987	1 367 000	227 000
1988	1 226 000	218 000
1989	*****	*****
1990	1 184 700	186 000
1991	1 116 000	185 000
1992	1 051 197	165 070

No agricultural survey data were available.

Source:

Directorate Agricultural Information (various years).

Central Statistical Services (various years).

There has been a general decrease in the number of labourers employed in South African agriculture in the past eight years (Table 2.1). This is due to:

- * the changing structure of agriculture (Hamman, 1993);
- * increased mechanisation; and
- * reduction in the number of farms (Van Rooyen, *et al*, 1990).

Agriculture in South Africa and KwaZulu-Natal mainly affects the economy through employment and income distribution, but due to the linkages and multipliers the agricultural sector has a far wider impact on the economy than through direct effects alone (Van Rooyen *et al*, 1990). It is well known that measures that artificially reduce the cost of capital relative to that of labour leads to greater capital intensity and reduced employment (Van Zyl and Vink, 1988).

2.3 New labour legislation

In the past, labour in South African agriculture had very little protection in the way of legislation. The main form of protection was through common law which is based on precedents set in court; that is, they are based on past judgements. Common law always allowed for a service contract between employer (farmer) and employee (farm worker). The contract had two components, it stipulated the job to be performed by the employee and the compensation payable to the employee. The contract could be verbal, written or concluded just through the actions of the employer and employee (De Jager and Wild, 1993).

The obligations of the employee with respect to the employer included the following (De Jager and Wild, 1993):

- (1) To make labour or services available to the employer.
- (2) To maintain work of a reasonable standard.
- (3) To further the interests of the employer.
- (4) To be respectful and obedient.
- (5) To avoid misconduct.

The obligations of the employer with respect to the employee were as follows (*ibid*):

- (1) To receive and keep the employee in his service.
- (2) To remunerate the employee for services rendered.
- (3) To provide safe working conditions.

If any dispute occurred the court was used or an arbitrator was brought in to determine who was

at fault. Using the court was costly, as the persons involved would have to employ a lawyer to handle the case. The disputes may have included any failure to fulfil the above obligations. In terms of common law, agricultural labourers had precisely the same rights and duties as labourers in other industries. In reality though, farm workers have not been as aware of or able to enforce their rights under common law. This may have been due to their (generally) lower level of education, fear to act on any disputes because of the possibility of losing their jobs, and they generally had to travel a great distance to obtain legal assistance.

Agricultural labour legislation, introduced to agriculture in September 1993, has taken over part of the common law. The reason for introducing new legislation was due to common law being inadequate in regulating the relationship between labourer and farmer (de Jager and Wild, 1993).

The following legislation is now important to agriculture:

- (1) Basic Conditions of Employment Amendment Act 104 of 1992.
- (2) Unemployment Insurance Amendment Act 130 of 1992.
- (3) Agricultural Labour Act 147 of 1993.

This type of legislation is known as "paternalistic legislation" because the state imposes its standards on the private employment relationship in order to protect the employee against the superior bargaining power of the employer (Marcus, 1991).

2.3.1 Basic Conditions of Employment Act (BCEA)

The Basic Conditions of Employment Act stipulates the maximum number of hours worked weekly, the maximum daily ordinary working hours and the maximum number of hours an

employee may work in a given 24 hour period. The Act also allows for the extension of working hours, meal intervals and overtime, which includes payment for overtime and work on Sundays. Other features the Act deals with are annual leave, sick leave and termination of service contracts.

The Act also describes other more menial functions; for example, the function of inspectors. The Act stipulates the role of inspectors and lays down what inspectors are entitled to do and not entitled to do. If farmers are found guilty of contravening the Act they can be fined, imprisoned or both.

2.3.2 Unemployment Insurance Act (UIA)

The Unemployment Insurance Act covers all persons who earn less than R58188,00 per year, are employed for longer than four months, are not casual employees (work for less than three days a week), are not seasonal workers (work for less than four months of the year for any one employee) and who do not work on a commission basis (De Jager and Wild, 1993). Payments are made to a fund by the employer (farmer) or contributor (labourer) and this fund is used to pay out various types of benefits to the contributors. The employer has to keep the following records with respect to each contributor:

- * paid earnings
- * time worked
- * payments for piecework
- * payments for overtime
- * further particulars as prescribed.

These records must be kept for a period of at least three years. The contributor can receive the following benefits:

- * unemployment benefit
- * illness benefit
- * maternity benefit
- * adoption benefit.

Again the Act makes allowance for the role of the inspector and it also includes a list of offences in terms of the Act; for example, failure of an employer to contribute to the Unemployment Insurance Fund.

The following list indicates the records a farmer is advised to keep:

- * Absence register
- * Annual leave register
- * Sick leave register
- * Disciplinary record
- * Contributor's record
- * Wage statement
- * Contract of service

The most important record to keep is the contract of service as it sets down the standards the labourer has to adhere to, as well as the terms of remuneration. Failure to maintain a set of records could lead to the farmer being fined or imprisoned. The cost of keeping these records (including the opportunity cost of time) may be cheaper than incurring legal fees or paying a fine.

2.3.3 Agricultural Labour Act (ALA)

The Agricultural Labour Act allows for the creation of an agricultural labour court. The court will act as the industrial labour court does, but it will not be a court of record. In other words, any rulings that are made could be different for similar cases; that is, no precedents can be set (Du Toit, 1994). The court will deal mainly with any unfair labour practices. The Act allows for arbitration and mediation of any disputes instead of using the court. These processes are less expensive than the court, but are not necessarily always the best (*ibid*, 1994). To increase the efficiency of the court no advocates or attorneys may represent the farmer or the employee. They may be represented by labour consultants and trade unions respectively. Any case may be referred to the industrial labour court for determination.

The Act also sets out the procedures for dismissal of a labourer. Labourers should be given due warning before being dismissed (unless it is a serious offence), and must be given a chance to state their case (this is usually through a disciplinary hearing) and the punishment should suit the offence (FWRRP, 1994).

Labour unionisation is also dealt with in the Act which allows unions to enter agriculture as long as they are registered with the Manpower Commission. The Act does stipulate that unions are allowed to recruit labour on farms. The farmer may not victimise labourers who are union members. Arbitration is expected to act as a means of reducing the occurrence of strikes on the farm. The problem though is that most arbitration experts are found in urban areas, thus the costs will be great (Du Toit, 1994).

2.3.4 Problems with the legislation

The major problem with the new legislation concerns the rights of casual workers (Benjamin, 1993). This is because the BCEA defines casual workers as all employees who do not work for a single employer for more than three days in a week. These employees are therefore not entitled to sick or paid leave. In general, the Act is well below the standards set by the International Labour Organisation (ILO), especially in the areas of maternity leave and number of leave days per year. The international standard for leave days per year is 26 whereas in South Africa it is a maximum of three weeks.

The introduction of labour legislation to agriculture is a contentious issue among farmers. It increases transaction costs to farmers. The enforceability of the law is also problematic as there are few inspectors and it's hardly likely that all farmers will be visited to see if they comply with the law. Incentives could be introduced to ensure that farmers comply with the law (Benjamin, 1993). These could be in the form of subsidies (for example, subsidies on housing materials) or through restricting Land Bank loans unless farmers comply with the legislation.

2.3.5 Future labour trends

The agricultural labour force is expected to polarise into skilled jobs and 'mindless drudgery' (Effective Farming, 1991). The above is especially true now with the introduction of labour legislation in agriculture, with specific reference to the Agricultural Labour Act. The Act allows for trade unions to become active in this previously protected industry. It is expected that specialised labourers, for example, tractor drivers and mechanics, will be the first to be

unionised. Labour unions in agriculture are not expected to be as strong as those in the industrial sector, due mainly to the nature of agriculture in South Africa (many farms spread over a large area). The demographics of agriculture will also play a major role as almost 90 percent of farmers employ fewer than 20 workers and only 1,9 percent more than 51 workers (Hamman, 1993).

The African National Congress (ANC) has stated in its agricultural policy report (1994) that it wishes to:

- (1) Encourage the organisation of workers, small farmers and other rural people at local, regional and national level to ensure they have a voice in policies affecting them.
- (2) Recognise and develop the contribution workers make to agriculture, forestry and fisheries and establish and provide for the protection of their basic rights and liberties.

In order to achieve these objectives the ANC plans to increase the legal protection farm workers enjoy, invest in the labour-intensive agricultural sector (small farms) and provide information to farm workers on their labour and organisational rights. The ANC wishes to establish a farm workers' office to look after workers' interests, with state assistance for housing, training, health and other social services. It wishes to promote independent rural and farm workers' organisations with workers' rights entrenched in law and effectively enforced (Financial Mail, 1994)

It is expected that an industrial council will determine minimum wages for agricultural workers. The Wage Act will not enforce a minimum wage in the agricultural sector. A minimum wage will be determined annually (FWRRP, 1994). This may place increasing pressure on farmers' profit margins or may induce them to employ fewer workers and more machinery and other substitutes for labour (Gallasch, 1975; Gardner, 1972; Lianos, 1972).

CHAPTER 3

DATA COLLECTION, FARM STRUCTURE AND IMPLEMENTATION OF NEW LABOUR LEGISLATION IN KWAZULU-NATAL

The objective of this study is to determine the implications of the new labour legislation (introduced in 1993) for commercial agriculture in South Africa, and particularly in KwaZulu-Natal. Introduction of this legislation is a move to normalising the employer-employee relationship, but it is expected to come at a cost to both the farmer (higher labour and transaction costs) and the labourer (possible retrenchment). The survey aims to ascertain how the farmer-labourer relationship as well as employment opportunities within agriculture have changed or will change.

3.1 Data collection

Data for this study were obtained from a questionnaire posted to 450 commercial farmers in KwaZulu-Natal. The questionnaire was designed with the aid of the South African Cane Growers' Association and the Natal Agricultural Union and was sent to 150 sugar-cane, 150 dairy and 150 beef farmers. Farmers' addresses were obtained from the South African Cane Growers' Association, Natal Milk Producers' Union and Natal Agricultural Union respectively. Farmers who received the questionnaire were randomly distributed throughout KwaZulu-Natal.

Of the 450 questionnaires sent out, 152 were returned (34 percent response rate) of which 135 were usable. Seventeen respondents had either retired, sold their farms or had not completed the questionnaire. The 135 responses were split fairly evenly between the three types of enterprises,

namely 42 sugar-cane, 47 dairy and 46 beef farmers. Overall, a 30 percent response rate was achieved.

The survey (see the appendix for a copy of the questionnaire) was designed to gauge farmers' perceptions of the new labour legislation. Information on each farm was sought with specific reference to farm turnover (gross income), debt-asset ratios, labour wages, payments in kind, minimum wages, education and the influence of trade unions. Trade unions and minimum wages may play a more important role in commercial agriculture in future and it is therefore necessary to understand farmers' perceptions of them so that appropriate policies can be formulated.

Some recommendations to change existing labour policies can be put forward to aid farmers and labourers in their respective roles. Farmers may experience increased pressure on their farms' overall profitability as labour becomes relatively more expensive. However, the possibility of substituting machinery and other technologies for labour, as the former becomes relatively cheaper, will help commercial farmers to survive.

3.2 Farm structure

As with Woodburn and Ortmann's study (1994), the most common business arrangement among survey respondents was individual ownership (63,7 percent), followed by close corporations (12,6 percent) and partnerships (11,1 percent). The median gross incomes (turnovers) of sugar-cane, beef and dairy farmers in the sample were R1 200 000, R500 000 and R700 000 respectively. Sixteen percent of all respondents had turnovers of less than R250 000, 26 percent between R500 000 and R1 million and 40 percent greater than R1 million (Table 3.1). This

distribution of income is similar to that obtained by Woodburn and Ortmann (1994). The average age of respondents was 48 years. Thirty three percent of respondents had a matric, 33 percent had diplomas and 24 percent had university degrees.

Table 3.1: Frequency distribution of farm turnover of survey respondents in KwaZulu-Natal, 1995 (n=134, mean=R1 331 785, median=R700 000).

Turnover ranges	n	Percentage	Cumulative Percentage
< R100 000	6	4,5	4,5
R100 000 - R249 999	16	11,9	16,4
R250 000 - R499 999	24	17,9	34,3
R500 000 - R999 999	35	26,1	60,4
R1 000 000 - R1 999 999	31	23,1	83,6
R2 000 000 - R3 999 999	14	10,4	94,0
> 4 000 000	8	6,0	100,0

Nine percent of respondents had no liabilities, whilst 30 percent had liabilities of between R200 000 and R500 000. Four percent of respondents had liabilities greater than R2 000 000 (Table 3.2). A frequency distribution of asset values is presented in Table 3.3.

Table 3.2: Frequency distribution of farm liabilities of survey respondents in KwaZulu-Natal, 1995 (n=135, mean=R533 060, median=R266 500).

Liability ranges	n	Percentage	Cumulative Percentage
R 0	12	9,1	9,1
R1 - R49 999	7	5,3	14,4
R50 000 - R99 999	9	6,8	21,2
R100 000 - R199 999	22	16,7	37,9
R200 000 - R499 999	40	30,3	68,2
R500 000 - R999 999	24	18,2	86,4
R1 000 000 - R1 999 999	13	9,8	96,2
> R2 000 000	8	3,8	100,0

Table 3.3: Frequency distribution of asset values of survey respondents' farms in KwaZulu-Natal, 1995 (n=125, mean=R3 914 637, median=R2 200 000).

Asset value ranges	n	Percentage	Cumulative percentage
< R100 000	1	0,8	0,8
R100 000 - R499 999	5	4,0	4,8
R500 000 - R999 999	17	13,6	18,4
R1 000 000 - R1 999 999	31	24,8	43,2
R2 000 000 - R3 999 999	44	35,2	78,4
R4 000 000 - R6 999 999	12	9,6	88,0
> R7 000 000	15	12,0	100,0

The majority of respondents had asset values greater than R1 million (81,6 percent), while twelve percent had asset values over R7 000 000 (Table 3.3). A high proportion of respondents (77 percent) had debt-asset ratios below 0,3 and 55 percent had ratios below 0,2 (Table 3.4).

Hence, the majority of respondents were solvent, their asset values being over three times greater than their debt.

Table 3.4: Frequency distribution of debt-asset ratios of survey respondents in KwaZulu-Natal, 1995 (n=122, mean=0,21, median=0,16).

Debt-asset ratio (percent)	N	Percentage	Cumulative percentage
0	12	9,8	9,8
0,1 - 9,9	34	27,9	37,7
10 - 19,9	21	17,2	54,9
20 - 29,9	27	22,1	77,0
30 - 39,9	18	14,8	91,8
40 - 49,9	2	1,6	93,4
50 - 69,9	5	4,1	97,5
70 - 99,9	2	1,6	99,2
100	1	0,8	100,0

Of the three farm types, sugar-cane respondents had the highest wage bill per month, while the value of rations was highest on dairy farms (Table 3.5). It is important to note that rations do not include the value of land rights afforded to labour. In general, sugar-cane farms employ more workers than dairy and beef farms. The medians of annual turnover, farm size, monthly total value of rations and cash wages, and number of workers employed were used to indicate differences between the farm types because of the wide ranges of the data set.

Table 3.5: Median annual turnover, farm size, monthly total value of rations and cash wages, and number of workers employed on sample farms in KwaZulu-Natal, 1995.

Category	Median annual turnover (Rand)	Median farm size (Ha)	Median total rations / month (Rand)	Median total cash wage bill / month (Rand)	Median number of workers per farm
Sugar-cane	1 200 000 (42)	338 (42)	1444 (39)	14 083 (38)	38 (40)
Beef	500 000 (46)	1833 (44)	800 (43)	4152 (43)	14 (45)
Dairy	700 000 (46)	545 (46)	1080 (47)	5782 (46)	14 (47)
Total	700 000 (134)	591 (132)	980 (129)	7167 (130)	20 (132)

Note: Number of respondents is given in parentheses

3.3 Implementation of the new labour legislation

At the time of the survey, 15 percent of respondents had not implemented any part of the Basic Conditions of Employment Act (BCEA), 42 percent had partly implemented the legislation and 43 percent felt they had implemented all of the basic conditions (Table 3.6).

Table 3.6: Implementation of the Basic Conditions of Employment Act (BCEA) by survey respondents in KwaZulu-Natal, 1995 (n=135).

Implemented BCEA	Respondents	
	Frequency	Percentage
None	20	14,8
Partly	57	42,2
All	58	43,0

Of the 135 respondents 70,4 percent had no written service contracts with their permanent employees (Table 3.7). The Unemployment Insurance Act (UIA) is either implemented by farmers or not. Eighty-four percent of respondents had implemented the UIA, yet 70,4 percent did not have service contracts with their permanent workers. The reasons respondents gave for not having written contracts were that workers did not understand them or did not adhere to regulations set down within the contract, for example the notice period that should be given.

Table 3.7: Respondents without service contracts and those who have implemented the Unemployment Insurance Act, 1995 (n=135).

Implemented service contract and UIA	Respondents	
	Frequency	Percentage
No written service contract	95	70,4
Implemented UIA	114	84,4

Table 3.8 shows that 77 percent of respondents did not view unions entering agriculture favourably, while 21,5 percent were impartial. Although the Agricultural Labour Act (ALA) allows unions to recruit labour on farms, 47 percent of respondents said they would not allow

recruiting. Even though the ALA does not allow farmers to act against union members, few respondents knew whether their labourers were members or not (9,1 percent).

Table 3.8: Respondents' opinions of trade unions entering commercial agriculture in KwaZulu-Natal, 1995.

Unions	Respondents	
	Frequency	Percentage
Farmers' opinion of unions (n=135):		
Not favourable	104	77,0
Impartial	29	21,5
Favourable	2	1,5
Recruiting on the farm: No (n=132)	62	47,0
Aware of any union members on farm: Yes (n=132)	12	9,1

3.3.1 Views of respondents on the new labour legislation

About 47 percent of respondents saw the new legislation as 'possibly needed' (Table 3.9). Twenty-seven percent felt it is necessary, whilst 25 percent indicated that it is unnecessary. It is clear that the majority of farmers feel there is some need for the legislation, but not in its present form.

Table 3.9: Respondents' opinions of the necessity of the new labour legislation, 1995
(n=135).

Necessity of labour legislation	Respondents	
	Frequency	Percentage
Necessary	37	27,4
Possibly needed	64	47,4
Totally unnecessary	34	25,2

On the question of whether farmers had implemented any of the legislation before it was enacted, 68 percent (n=114) indicated they had implemented the stipulated working hours. Public holidays were partly implemented by 48,4 percent of respondents and totally by 28,9 percent (n=128).

Paying for overtime work was practised by 42 percent of respondents and partly by 22 percent (n=124). Forty-five percent had not used the dismissal procedures as stipulated by the Agricultural Labour Act. Implementation of service contracts was slightly worse before the enactment of the legislation; that is, 74,5 percent of respondents did not use service contracts. Even though parts of the legislation had been implemented before it was enacted, farmers and labourers need to be educated in the regulation and operation of the service contract. However, certain problems are perceived by respondents regarding the presentation of the new legislation (Table 3.10).

Table 3.10: Respondents' opinions on certain characteristics of the new legislation and where it could be changed, 1995.

Is the legislation	Respondents answering 'Yes'	
	Frequency	Percentage
Clear? (n=113)	59	52,2
Flexible? (n=112)	38	33,9
Time consuming? (n=119)	97	81,5
Costly? (n=111)	69	62,2
Where changes could be made:		
Increased clarity (n=119)	65	54,6
More flexibility (n=117)	92	78,6
Remain the same (n=115)	15	13,0
Reduce its power (n=113)	80	70,8

Respondents did not appear to view the new labour legislation favourably. About 82 percent perceived the legislation as time consuming, and 62 percent as costly. Fifty five percent want more clarity, 78,6 percent more flexibility, and 70,8 percent want its powers reduced.

CHAPTER 4

MACHINERY AND LABOUR CONTRACTING IN COMMERCIAL AGRICULTURE IN KWAZULU-NATAL

The impacts of the new labour legislation on commercial agriculture are expected to be far-reaching. The Acts regulate the relationship between farmer and labourer, causing increased transaction costs. A greater amount of time will be required to manage labour, whether it is in keeping labour records or negotiating in wage disputes. These increased costs could cause farmers to restructure (reduce) their labour force, invest in machinery, adopt new technologies (for example new crop varieties which are less labour intensive) and/or employ machinery contractors. Contractors usually supply a unique service to farmers; for example, harvesting of produce or the ploughing of fields. Machinery contractors may have a competitive advantage over some farmers, in that they are able to spread their (fixed) costs over a greater number of farms. Errington and Bennet (1994) maintain that as machines become larger and more sophisticated they need to cover a greater area to reach and surpass the break-even point.

This chapter investigates the economics of labour and machinery contracting and how it impacts on commercial agriculture in KwaZulu-Natal. Descriptive statistics are presented in section 4.2 and the results of a logit model, describing factors impacting on the use of machinery contracting, are discussed in section 4.3.

4.1 Economics of labour and machinery contracting

Labour and machinery contracting is expected to become an important activity in South Africa in the next few years owing to the introduction of labour legislation to agriculture and the real increased cost of machinery (Goedecke and Ortmann, 1992). It is a means of reducing transaction and production costs and risk caused by labour legislation in farming. Contracting is the use of specialists to do specific jobs on the farm; for example, harvesting and spraying. The use of contractors in America and Europe is widespread, especially on smaller farms where buying machinery might mean over-capitalization (Goedecke, 1994). There are basically two types of contractors in commercial agriculture; namely, labour contractors and machinery contractors. The difference between the two is in their employment of labour; that is, labour contractors only contract out labour whilst machinery contractors contract out machinery and operators.

Labour contracting in agriculture came about due to the increase in transaction costs when employing many labourers. Transaction costs are real and unavoidable aspects of an economic system. These costs are incurred when obtaining information, establishing a bargaining position, bargaining and arriving at a group decision, and enforcing the decision made (Griffin, 1991). Labour contracting is a way of reducing transaction costs as the costs of the operation are transferred from the farmer to the contractor. In most cases employing a machinery or labour contractor should result in significantly lower transaction costs pertaining to the task at hand than would be the case with direct investment or employment (Polopolus and Emerson, 1991). A machinery contractor should be able to save the farmer repair costs, time, labour training, housing costs and improve his cash flow (Goedecke, 1994).

Use of contractors is a means of reducing the power of trade unions, as the unions' control over contractors is less than that over farm labour. As there is a large supply of labour and a high degree of unemployment in South Africa, those labourers who are working for contractors are sceptical about joining unions for fear of losing their jobs. Labourers employed by contractors, in general, work for lower wages (Goedecke and Ortmann, 1993). This puts pressure on permanent labourers' wages, as employing a contractor may be relatively less expensive (Klerck, 1991). The presence of contractors also increases the farmer's bargaining position when dealing with his own labour.

In America farm labour contractors have shown an ability to evade labour laws because they have fragmented into smaller operations. The smaller operations have made enforcement of the labour law difficult (Taylor and Thilmany, 1993). This may occur in South Africa, as the introduction of the new legislation could see contractors playing a greater role in agriculture. Employing contractors in agriculture can be viewed as a means of restoring equilibrium to the system following changes brought on by the imposition of the legislation (Polopolus and Emerson, 1991). Previously, there were contractors operating in agriculture but their numbers decreased over the years due to droughts and the rising real cost of machinery (Goedecke, 1994). The decrease is expected to slow though, as labour becomes more expensive relative to machinery and transaction costs increase.

Labour and machinery contracting tends to be used more for cropping activities and less for livestock activities, because of the broader level of skills required when dealing with livestock (Errington and Bennet, 1991). Farm size is also expected to influence employment of contractors. Frisvold (1989) studied labour contracts and productivity in rural India and found

that smaller farmers employed more contract labour than their larger counterparts who had greater access to capital (credit). Goedecke and Ortmann (1993) reported that South African forestry companies used contractors as they were cheaper, reduced transaction costs of dealing with a large number of employees and reduced trade unions' bargaining power.

4.2 Contracting in commercial agriculture in KwaZulu-Natal

4.2.1 Overview

Some 36 percent of sample farmers employed machinery contractors, 7,5 percent employed labour contractors and about 10 percent other contractors such as builders. A survey conducted by Ball (1987), in the United Kingdom, indicated that 70 percent of the sampled farmers employed contractors.

Of the 135 respondents, 78 (58 percent) had been approached by contractors offering their services. Some respondents also saw an opportunity to contract out their services; for example, 34 percent were willing to contract out their services to other farmers, thus improving use of their resources.

The introduction of new labour legislation has positively changed the opinion of 45 percent of respondents about contractors and their function in agriculture. This percentage is expected to increase when new legislation is passed, as more farmers find it difficult to cope with the legislation. Forty seven percent of respondents saw contractors as a means of dealing with the legislation. The farmers were asked to indicate, where on the farm, contractors offered the

greatest assistance to them. Responses are shown in Table 4.1.

Table 4.1: Areas where contractors are perceived to offer greatest assistance to sample farmers in KwaZulu-Natal, 1995 (n=135).

	Percentage of Respondents
Labour replacement	36,2
Ploughing	39,2
Harvesting	65,4
Other	18,5

Most respondents indicated that harvesting of produce is an area where contractors provided the greatest assistance. Contracting is most probably perceived to be a lower-cost option than using own harvesting machinery and/or employing own labour. British farmers, sampled by Ball (1987), used contractors mainly for harvesting tasks.

4.2.2 Use of contractors by enterprise

Table 4.2 shows the percentage of respondents in each enterprise group employing labour, machinery and other contractors. Fifty-two percent of dairy respondents employed machinery contractors, which may be due to the high perceived cost of employing a large labour force, and the cost of owning and maintaining machinery for small cropping (forage) activities. Most contracting seemed to be applied to the cropping activities on dairy farms. Other studies suggest that crop farmers use labour contractors more than livestock farmers because of the broader skills required when dealing with livestock. Ball's (1987) findings were similar to this study; the

incidence of contract work being concentrated in dairying and arable units.

Table 4.2: Type of contracting in various enterprises on sample farms in KwaZulu-Natal, 1995.

Particulars	Respondents employing contractors (Percent)
Labour contractors	
Sugar-cane (n=42)	19,0
Beef (n=45)	4,4
Dairy (n=46)	0
Overall (n=133)	7,5
Machinery contractors	
Sugar-cane (n=42)	19,0
Beef (n=45)	35,6
Dairy (n=46)	52,2
Overall (n=133)	36,1
Other contractors	
Sugar (n=42)	4,8
Beef (n=45)	8,9
Dairy (n=46)	15,2
Overall (n=133)	9,8

Labour contracting is not widely practised though (7,5 percent of all respondents), with 19 percent of sugar-cane respondents employing labour contractors. Other contractors include sheep shearers and builders who supply a specific skill.

Nearly 42 percent of respondents had not been approached by contractors. This indicates some

scope for contractors to expand their business. With the changing labour legislation and the increased need for specific skills it is expected that the demand for contractors will increase in future. Respondents' opinions of contractors are changing (positively), as is indicated in Table 4.3.

Table 4.3: Opinions of contractors among sample farmers in KwaZulu-Natal, 1995.

	Yes (Percent)
Farmers' changed opinion (positive) of contractors since new labour legislation?	
Sugar-cane (n=41)	53,7
Beef (n=44)	36,4
Dairy (n=46)	45,7
TOTAL (n=131)	45,0
Contractors as an aid to coping with new labour legislation?	
Sugar-cane (n=40)	50,0
Beef (n=44)	40,9
Dairy (n=46)	50,0
TOTAL (n=130)	46,9

Fifty percent of dairy and sugar-cane respondents viewed employment of contractors as a means of coping with the new labour legislation, compared to 40 percent of beef respondents. A possible reason for the different response, is that their labour structures differ; that is, relatively more labour is needed on labour intensive sugar-cane and dairy farms than on beef farms. Clearly, new labour legislation will have a greater effect on farmers employing more labour.

Table 4.4 presents the areas of activity of greatest importance regarding the employment of

contractors. As sugar-cane farmers rely heavily on labour, it is conceivable that labour replacement could be an opportunity for contractors. The potential for labour replacement on extensive livestock farms, especially beef farms, is not as great; because relatively fewer labourers are employed and the level of skills required are broader than on a sugar-cane farm, where skills can be categorised (eg cane cutters). Contract ploughing is important for livestock farmers because it is often a less expensive option than owning machinery, particularly on farms with small arable areas.

Table 4.4: Areas of potential activity for contractors on sample farms in KwaZulu-Natal, 1995.

Particulars	Yes response (Percent)
Labour replacement	
Sugar-cane (n=42)	54,8
Beef (n=42)	23,8
Dairy (n=46)	30,4
Total (n=130)	36,2
Ploughing	
Sugar-cane (n=42)	19,0
Beef (n=42)	47,6
Dairy (n=46)	50,0
Total (n=130)	39,2
Harvesting	
Sugar-cane (n=42)	69,0
Beef (n=42)	54,8
Dairy (n=46)	71,7
Total (n=130)	65,4

Harvesting of produce is where most of the respondents perceive an important role for contractors. This activity usually requires a large number of labourers and specific machinery which contractors are often able to supply at a relatively lower cost.

Employment of more contractors in agriculture could cause the farm management structure to 'flatten out'. Instead of the farmer vertically integrating farm operations, fewer labourers are employed, and those that are would be skilled in their jobs. Unskilled labourers may largely be affected and replaced by contractors or employed by contractors instead of farmers.

4.3 Factors influencing machinery contracting

This section analyses factors influencing machinery contracting on farms using logistic regression, as the dependent variable (whether a farmer uses machinery contractors or not), is dichotomous. Logit analysis is used as it guarantees that the estimated probabilities lie between the logical limits of 0 and 1 (Gujarati, 1988). An analysis of labour contractors was not undertaken as the incidence of labour contracting among respondents was relatively low.

Past studies (Ball, 1987; Frisvold, 1989) suggest that one of the major determinants of whether a farmer will use contracting or not is farm size. In this analysis turnover is used as a proxy for farm size. Other variables considered include age and education of the respondent, implementation of labour legislation, mechanisation, technological advancement, minimum wages, respondents' opinions about trade unions and enterprise type.

It is expected that older and less educated farmers are less likely to use contractors. Older farmers may have invested a substantial amount of capital in machinery in the past, when contracting was considered less viable. These farmers are also deemed to be relatively risk averse. Alternatively, younger farmers may have severe liquidity constraints preventing large outlays on machinery.

Farmers generating a smaller turnover are more likely to employ contractors on their farm, because they may not be able to capture scale advantages when owning machines (Ball, 1987). The threat of minimum wages and pressure from trade unions are also expected to increase the likelihood of using contractors (Goedecke and Ortmann, 1993). However, previous adoption of mechanisation and new technologies to reduce exposure to labour legislation is expected to reduce the likelihood of employing machinery contractors.

Enterprise type seems to be an important determinant whether a farmer will contract or not. Table 4.2 showed that sample dairy farmers were contracting more than sugar-cane and beef farmers. The general model of the decision to contract can therefore be expressed as:

$$MCONT = f\{AGE, TURN, EDUC, MECH, NTECH, MINWAG, OPINTU, IMPLLEG, BEEF, DAIRY\}$$

MCONT is set at 1 if the farmer uses a machinery contractor and 0 if he does not.

AGE is categorised into seven equal intervals (1 - 7) ranging from 21 to over 80 years of age.

TURN is a continuous variable indicating the yearly turnover (Rand) for the farm.

EDUC	equals one if the farmer has a diploma or a degree and 0 if he has a matric or lower qualification.
MECH	equals 1 if the farmer previously bought machinery to replace labour and 0 if he did not.
NTECH	equals 1 if the farmer introduced any new technology (eg. new crop varieties) to replace labour and 0 if he did not.
MINWAG	equals 0 if the farmer perceives minimum wages as a problem and 1 if the farmer thought they were acceptable.
OPINTU	is set at 0 if the farmer perceives pressure from trade unions as a problem or 1 if he does not.
IMPLEG	is set at 1 if the new labour legislation has been implemented by the respondent and 0 if not.
BEEF	is a dummy variable with 1 for beef farmers, and 0 otherwise.
DAIRY	is a dummy variable with 1 for dairy farmers, and 0 otherwise.

A correlation matrix indicated that some of the variables were significantly correlated; namely, AGE and EDUC ($r=-0,2496$) and MECH and NTECH ($r=0,3304$). The last two variables were combined in the following way:

If MECH + NTECH is greater than 0 then PRODN=1

If MECH + NTECH is equal to 0 then PRODN=0

The following contract decision model was then estimated:

$MCONT=f\{AGE, EDUC, TURN, PRODN, MINWAG, OPINTU, IMPLEG, BEEF, DAIRY\}$

PRODN, OPINTU, EDUC and MINWAG were dropped from the model as their associated asymptotic t-values were less than one (in absolute terms). The final decision model was as follows:

$$MCONT=f\{BEEF,DAIRY,AGE,TURN,IMPLEG\}$$

The overall classification rate of the logit model was 74.51 percent (Table 4.5). The positive coefficient of DAIRY indicates that machinery contracting is more likely on dairy farms. The AGE variable was negative, indicating that the younger a farmer is, the more likely he is to contract in. The coefficient of TURN was positive; this contradictory result most probably reflects the virtual absence of small farms in the sample. Instead of measuring size economies in machinery, turnover (TURN) measures size economies in the fixed costs of negotiating labour contracts. This would result in a positive correlation between turnover and use of machinery contractors. The negative IMPLEG coefficient implies that if the farmer has implemented the new legislation he is less likely to contract in, as contracting is seen as a strategy to evade the legislation.

Table 4.5: Logistic regression analysis of machinery contracting among sample farmers in KwaZulu-Natal, 1995.

Variable	Regression Coefficient	Standard Error	Asymptotic t-statistic
BEEF	0,3807	0,6155	0,6185
DAIRY	2,0200	0,5873	3,4395
AGE	-0,3005	0,2082	-1,4433
TURN	0,0002	0,0001	2,0000
IMPLEG	-1,6330	0,7475	-2,1846
CONSTANT	0,7746	1,0189	0,7602
<i>Likelihood ratio Chi-square test statistic</i>			
Model:	21,350**	degrees of freedom = 5	
<i>Correct prediction (percentage)</i>			
Total	74,51		
Adopters	58,97		
Non-adopters	84,13		

**P < 0,01

4.4 Conclusions

Survey results show that 36 percent of sample respondents employ machinery contractors. However, there still seems to be considerable scope for all contractors to move into commercial agriculture. Machinery contractors who are able to harvest crops efficiently and timeously will have a competitive advantage, as this activity is where most respondents see contractors operating. Machinery contractors are able to achieve economies of size beyond the reach of many individual farmers because they can spread the (fixed) costs of sophisticated and expensive machinery over more units of output.

Forty six percent of all respondents perceived the use of contractors as a strategy to cope with the new labour legislation. This perception may increase in the future as labour becomes relatively more expensive, in terms of wages and transaction costs, owing to legislation governing the relationship between farmer and labourer. The logistic regression analysis confirmed implementation of the new labour legislation as a factor in a farmer's decision to contract or not.

Younger farmers are also more likely to contract in services of a machinery contractor because they usually face greater capital constraints than older farmers. The positive turnover coefficient in the logit analysis most likely reflects size economies in the fixed costs of negotiating labour contracts. Sugar-cane farmers had the highest turnovers, therefore turnover may reflect higher labour intensity on sugar-cane farms.

Farmers may find that where specialised skills or equipment are required it may be advantageous to use a contractor. Contractors are employed if they can reduce the cost of farming, including transaction costs associated with labour management.

CHAPTER 5

FACTORS INFLUENCING WAGES ON COMMERCIAL FARMS IN KWAZULU-NATAL

The aggregate remuneration package for farm labour usually includes cash wages, rations, grazing rights, housing, cultivation rights, clothing and other benefits. Estimation of a farm labourer's total remuneration package is difficult because the value of grazing or cultivation rights and other benefits is subjective. Due to the diversity of farming within the country, the types of remuneration are likely to differ both inter-regionally and between individual farms.

This chapter uses data gathered in the postal survey of 135 commercial farmers to identify factors, including recent labour legislation, that influence cash wages, rations and land rights afforded to unskilled farm labour in KwaZulu-Natal. The object is to predict farmer response to legislation that raises the cost of labour.

5.1 Labour remuneration

Labour costs in commercial agriculture are increasing, if not in wage terms, then in the cost of transacting with labour. Transaction costs have become more important since the introduction of new labour legislation (Goedecke and Ortmann, 1993). Financially, labour has become more expensive through the payment of overtime work, which includes work on Sundays. Paid leave (including Sunday and notice periods) must include the value of payments in kind (Benjamin, 1993). Transaction cost, have also increased as more time is spent maintaining labour records and arbitrating wage disputes. High transaction costs could lead to the substitution of own

machinery, contract machinery or contract labour for own labour. In theory, the least-cost factor mix occurs where the price of own labour relative to the price of its substitutes equals the marginal physical rate of input substitution.

Labour in commercial agriculture normally receives a cash wage and payments in kind. The cash wage is usually paid on a weekly, fortnightly or monthly basis and often includes a bonus at the end of the year. Table 5.1 shows average monthly cash wages plus bonuses for labour in commercial agriculture in KwaZulu-Natal. The data are categorised by job type: drivers (which includes tractor and truck drivers), Indunas, general labourers and casual labourers. Sugar-cane labourers on average are paid the highest monthly wages, followed by dairy and beef workers respectively.

Table 5.1: Average monthly cash wages and bonuses for labour on sample farms in KwaZulu-Natal, 1995.

Job type	Sugar-cane	Beef	Dairy	Total
Drivers (R)	528,04 (40)	360,82 (37)	420,31 (37)	438,80 (114)
Indunas (R)	486,56 (36)	515,55 (20)	566,94 (16)	512,47 (72)
General (R)	313,74 (35)	244,39 (43)	310,73 (42)	287,83 (120)
Casual (R)	256,73 (26)	218,45 (22)	237,83 (23)	238,75 (71)

Note: Number of respondents are given in parentheses.

Payments in kind generally comprise a combination of food rations, grazing rights, cultivation rights and housing. The perquisites labourers receive vary between farm types. For example on dairy farms labourers generally receive milk (approximately 1,5 litres per day), whereas on beef

farms they may be assigned rights to graze a defined number of animal units on the farm. Cultivation rights permit a worker to cultivate a certain area of land; the farmer may also provide seed and fertilizer. Rations include mielie meal, meat, tin foodstuffs and vegetables (Marcus, 1991). Housing may be provided by farmers, or they may allocate an area for their labourers to build their own dwellings.

Table 5.2 indicates the perquisites labourers receive on surveyed commercial farms in KwaZulu-Natal. The majority of respondents provide housing for their permanent labour. A large proportion of beef farmers provide land rights as compared to dairy and sugar-cane farmers. Eighty-nine percent of beef and 87,2 percent of dairy respondents provide rations for their labour as compared to 64,3 percent of sugar-cane farmers. Milk is largely supplied by the livestock farmers.

Table 5.2: Percentage of respondents that gave perquisites to permanent labour on commercial farms in KwaZulu-Natal, 1995.

Perquisites	Sugar-cane (percent)*	Beef (percent)*	Dairy (percent)*
Housing	100 (42)	91,3 (46)	83,0 (47)
Grazing Rights	7,1 (42)	68,8 (45)	48,9 (47)
Cultivation Rights	47,6 (42)	60,0 (45)	46,8 (47)
Rations	64,3 (42)	88,8 (45)	87,2 (47)
Milk	14,3 (42)	82,2 (45)	83,0 (47)
Clothing	85,7 (42)	88,8 (45)	93,5 (46)

* Indicates the percentage of respondents who answered in the affirmative.

Respondents were asked to estimate the costs of perquisites provided to their permanent labour (Table 5.3). The average value of housing per month was R66,83. Beef farmers valued housing at R74,43 on average. As it is difficult to estimate the value of land rights (grazing and cultivation rights), farmers were asked to indicate the number of animal units they allowed each permanent labourer to keep on the farm and what area they provide each labourer for cultivation. On beef farms, labourers were allowed to keep an average of four animal units and cultivate 0,65 ha. The data therefore suggest that although beef labourers receive lower cash wages, they receive greater land rights. The remuneration labour receives and the form of the remuneration package is dependant on enterprise type.

Table 5.3: Average values given to perquisites on sample farms in KwaZulu-Natal, 1995.

Perquisites	Sugar-cane	Beef	Dairy	Total
Value of housing* (R)	71,00 (30)	74,43 (31)	55,91 (33)	66,83 (94)
Animals grazed (au)	0,40 (39)	4,39 (44)	2,57 (47)	2,5 (130)
Cultivated area (ha)	0,24 (41)	0,65 (43)	0,3 (47)	0,4 (131)
Value of rations* (R)	45,37 (41)	66,97 (44)	78,60 (47)	64,40 (132)
Milk (l/day)	0,21 (41)	1,63 (44)	1,27 (47)	1,00 (132)
Value of clothing** (R)	97,22 (36)	115,57 (44)	130,74 (46)	115,87 (126)

* Values of housing and rations are a monthly average.

** The value of clothing is yearly average.

Note: Number of respondents are given in parentheses

Regional variations in cash wages may reflect the presence or absence of labour and machinery contractors. It is expected that where farmers can employ a contract service at a cost lower than their own labour force, they would do so. If wages and transaction costs of skilled and unskilled permanent workers increase, farmers might opt for contractors. Goedecke and Ortmann (1993) report that forestry companies have substituted contract labour for permanent unskilled labour.

Labour productivity is expected to increase when the new legislation is applied. Leibenstein, cited by Coffey (1969:1071), remarked that "The extent to which labour is maintained will determine to some degree the amount of effort that will be forthcoming. The amount of work that the representative labourer can be expected to perform depends on his energy level, his health, his vitality, etc., which in turn depend on his consumption level (depends on his income level) and, mostly directly, on the nutritive value of his food intake." Thus if earnings are increased, productivity may increase, because earnings (1) act as an incentive, (2) stimulate investment of the workers in themselves and their children, and (3) employers may replace unproductive with more productive workers (Blair and Kenny, 1987; Coffey, 1969). The introduction of the new legislation is intended to help farm workers improve their working wage and living conditions (Benjamin, 1993).

5.2 Minimum wages

Minimum wages are set by law, above or below the free market wage, and are binding on employers who pay wages below the minimum wage (Lipsey, 1989). It has been suggested that minimum wages be introduced in South African agriculture; for example the South African Agricultural, Plantation and Allied Workers' Union (SAAPAWU) has suggested a minimum

monthly wage of R750. Gallasch (1975), Gardner (1972), Lianos (1972), Watanabe (1976) and Young (1991) all concluded that the introduction of minimum wages would lead to a decrease in employment of unskilled labour, a decrease in employment of total farm labour and a decrease in the ratio of hired workers to family workers. Respondents' views on the likely impacts of minimum wage legislation on employment are presented in Table 5.4. The majority of the respondents felt that minimum wages would affect the employment of both unskilled and skilled labour. Inexperienced workers will be the first retrenched in both categories, followed by women and then young workers.

Table 5.4: Respondents' perceptions of the effects of minimum wages on labour structure on commercial farms in KwaZulu-Natal, 1995.

Effects	Unskilled (percent)	Skilled (percent)
Will affect employment	94,0 (117)	84,5 (117)
Young workers retrenched	11,8 (74)	6,8 (119)
Inexperienced workers retrenched	54,6 (74)	71,6 (119)
Women retrenched	33,6 (74)	21,6 (119)

Note: Number of respondents are given in parentheses

Minimum wages reduce competitive forces in the labour market and more people would be willing to work if the wage is set above the prevailing market level. Employers may eliminate or reduce perquisites if they are not considered part of the minimum wage. The results summarized in Table 5.5 suggest that 68 percent of respondents would pay labourers a cash wage and charge for perquisites if the minimum wages exceeded their current payments.

Table 5.5: Expected change in remuneration structure due to imposition of minimum wages on sample farms in KwaZulu-Natal, 1995 (n=129).

Wage structure	Response (percent)
No change to present structure	13,2
Pay cash wage and charge for perquisites	68,2
Pay a cash wage only	18,6

If the minimum wage is set too high, farmers may substitute labour with machinery or with labour and machinery contractors (Table 5.6). This presumes strict enforcement of the minimum wage. However, experience in other countries where unemployment is high suggests that enforcement could be lax. In many African countries, government, union and business officials contend that "most employers who can afford to pay the new minimum rates were paying them already and those who cannot will not pay them anyway" (Watanabe 1976:346).

Table 5.6: Respondents' perceptions of the impacts of minimum wages (above the present remuneration level) on commercial farms in KwaZulu-Natal, 1995.

Impacts	Unskilled labour (n=117) (Percent)*	Skilled labour (n=97) (Percent)*
Employ more permanent labour	1,0	5,2
Employ labour contractors	42,0	27,8
Employ machinery contractors	34,2	44,3
Replace labour with own machinery	54,7	36,1
Employ more casual labour	43,6	9,3
Employ less casual labour	22,2	10,3

* indicates the percentage of respondents who answered in the affirmative.

Table 5.7 shows that if a minimum wage is imposed, 53 percent of respondents would prefer the wage to be negotiated annually in an industrial council in KwaZulu-Natal. This may be due to the perception that a decentralized institution would recognise regional and enterprise variation in the labour market. The data in Table 3.4 show marked differences in wages between farm types.

Table 5.7: Type of minimum wage institution preferred by survey respondents in KwaZulu-Natal, 1995 (n=122).

Institution	Percent of respondents
Set by government without taking into account regional or enterprise difference.	18,0
Stipulated in the Wage Act as in industry, taking regional differences and enterprise type into account.	28,7
Determined by an Industrial Council, annually taking account of regional and enterprise differences.	53,3

5.3 Results of wage regression analyses

The following section uses regression techniques to analyse factors that influence the average cash wage, rations and rights afforded to general farm labour.

5.3.1 Factors influencing the average cash wage of general labour on commercial farms in KwaZulu-Natal.

General labourers perform unskilled or semi-skilled work such as herding cattle on beef farms, milking cows on dairy farms, and weeding and cutting cane on sugar-cane farms. These

labourers are usually permanent employees. Skilled workers, such as drivers and supervisors, were omitted from this analysis because the objective was to isolate factors accounting for differences between the average cash wages paid to semi- and unskilled workers employed on beef, dairy and sugar-cane farms. Payments in kind (rations and land rights) are analysed later (section 5.2).

The level of cash wages could be influenced by several factors (section 2). For example, farms closer to a large town or city are expected to pay higher average wages, as the labourers' reservation price declines with increasing distance from the urban job market. Other variables that may influence the average cash wage include enterprise type, farm turnover, presence of machinery or labour contractors and compliance or non-compliance with the new labour legislation. Respondent's and worker's age and the respondent's education level may be considered as control variables in a wage model.

Enterprise type is expected to influence cash wages because enterprises require different skills and some are more effort-intensive than others. Turnover (farm size) is expected to affect average cash wages with higher wages associated with higher turnover owing to higher liquidity. Farmers who employ contractors are expected to pay lower cash wages as the contractors are able to replace farm labour (Goedecke and Ortmann, 1993). Compliance with the new labour legislation may also determine the level of cash wage farmers pay. Farmers who implement the legislation may pay higher wages because the Basic Conditions of Employment Act specifies high wage rates for overtime work.

The following full model was estimated:

$$AVWG = F\{AGEF, AGEW, EDU1, TURN, DIST, SUGAR, DAIRY, MCONT, IMPL\}$$

Where:

AVWG	is the dependent variable, average cash wage paid to general permanent workers on the farm (Rand).
AGEF	is the age of the farmer (years).
AGEW	is the average age of general labour on the farm (years).
EDU1	is a dummy with EDU1=1 if the respondent had a diploma or a degree and zero if he had a matric or lower qualification.
TURN	indicates the yearly turnover for the farm (Rand).
DIST	indicates the distance to a large town or city (km).
SUGAR	is a dummy variable with 1 for sugar-cane farmers, and 0 otherwise.
DAIRY	is a dummy variable with 1 for dairy farmers, and 0 otherwise.
MCONT	is set at 1 if the farmer employs machinery contractors, and 0 otherwise.
IMPLEG	is set at 1 if the farmer complies with the new labour legislation, and 0 otherwise.

This initial linear model had an R^2 of only 0,10. A double-log function was estimated and the variables LAGEF, LAGEW, EDU1, SUGAR, DAIRY and MCONT were dropped from the model as their coefficients were not significant (at least at the 20 percent level of probability). EDU1 was negatively correlated with LAGEF ($r=-0,2234$) and positively correlated with LTURN ($r=0,1995$). LTURN may therefore capture some of the effects of EDU1 and LAGEF. The results are presented in Table 5.8.

Table 5.8: Regression analysis of average cash wages of general labour on sample farms in KwaZulu-Natal, 1995.

Variables	Regression Coefficients	Standard Error	t-statistic
LTURN	0,0664	0,0369	1,798*
LDIST	-0,0882	0,0673	-1,312
IMPLEG	0,0741	0,0540	1,373
DAIRY	0,0914	0,0425	2,149**
SUGAR	0,0867	0,0471	1,840*
CONSTANT	2,2507	0,1725	13,048***
R ² = 0,170			
F = 4,4772***			
df = 110			

- *** Significant at the 1% level of probability
- ** Significant at the 5% level of probability
- * Significant at the 10% level of probability

The model's R² of 0,17 is relatively low but may, in part, be due to low variation in the average wages of general farm labour and the cross-sectional nature of the data. Robertson and Nieuwoudt (1992) for example reported R² values of 0,37, 0,38, and 0,29 for their estimated remuneration models.

The positive LTURN coefficient suggests that farmers with higher incomes tend to pay higher average cash wages to general labourers, perhaps due to higher liquidity levels and also to maintain a stable labour force. The negative LDIST variable supports the argument that wages decline with distance from urban job markets. The positive IMPLEG variable suggests that farmers who have implemented the new labour legislation tend to pay higher average cash wages

(but may grant less perquisites). This variable is significantly correlated with LTURN ($r=0,3301$), indicating that farmers with high turnovers are more likely to implement the new labour legislation.

Enterprise type is also an important determinant of cash wages. Labourers on dairy farms receive a higher average cash wage, *ceteris paribus*, than their sugar and beef counterparts respectively. Dairy workers (particularly milkers) may on average be more skilled than sugar or beef labourers.

5.3.2 Factors influencing rations and labour rights afforded to labour on commercial farms in KwaZulu-Natal.

Rations and land rights form an important part of the total remuneration package that labourers receive. This analysis aims to isolate factors that influence the value of rations and allocation of land rights (ie grazing and cultivation rights) to workers.

5.3.2.1 Rations

Enterprise type is an obvious determinant of the value of rations because certain enterprises are suited to payments in kind (eg milk in a dairy enterprise). The distance to a large town or city may affect the market value of rations, as may farm size. Larger farmers might pay higher cash and non-cash wages, whilst farmers who comply with the new labour legislation are expected to provide fewer rations and pay higher cash wages. Use of a machinery contractor may also influence the value of rations provided on farms; these farmers may pay lower cash and non-cash

wages.

The following model was estimated:

$$\text{RATIONS} = f\{\text{SUGAR}, \text{DAIRY}, \text{MGT1}, \text{DIST}, \text{TURN}, \text{IMPLEG}, \text{MCONT}\}$$

Where:

RATIONS value of rations given to a permanent labourer per month (Rand).

MGT1 is a principal component combining age and education of the farmer.

The other variables are defined as before (section 5.1).

MGT1, TURN, DIST, IMPLEG, and MCONT were dropped from the model as they were statistically insignificant. The final model, shown in Table 5.9, had an R^2 of 0,10, revealing little variation within the dependent variable.

Table 5.9: Regression analysis of rations payments on sample farms in KwaZulu-Natal, 1995.

Variables	Regression Coefficients	Standard Error	t-statistic
SUGAR	-23,4787	9,6796	-2,426***
DAIRY	11,8302	9,2271	1,282
CONSTANT	66,9524	6,6712	10,036***
R ² = 0,102			
F = 7,0683***			
df= 123			

*** Significant at 1% level of probability

According to these results, enterprise type is the only determinant of ration payments. SUGAR has a negative coefficient indicating that sugar farmers paid less in rations than dairy or beef farmers.

5.3.2.2 Land rights

Logit analysis was used to determine what factors influence a farmer's decision to grant land rights. Here, land rights are defined as the right to grazing and/or crop land. Enterprise type is expected to be an important factor; for example, land rights may be more prevalent on livestock farms. Larger farms may be more able to offer land rights. The management variable (MGT1) was again introduced as a control variable and the following model was estimated:

$$\text{RIGHTS} = f\{\text{SUGAR}, \text{DAIRY}, \text{MGT1}, \text{TURN}\}$$

where the RIGHTS variable is a dummy reflecting the presence of either grazing or cultivation rights. A respondent who provided grazing and/or cultivation rights scored a one for RIGHTS, and a zero otherwise.

The overall predictive ability of this model was 70,68 percent (Table 5.10). TURN has a negative coefficient, implying that farms with large turnovers are less likely to provide land rights. This is contrary to prior theory, but may be due to an inverse relationship between average wages and payments in kind (Table 5.8). The negative SUGAR and DAIRY variables indicate that sugar and dairy farmers are less likely to provide land rights than their beef counterparts.

The positive management variable (MGT1) suggests that younger, more educated farmers are more likely to provide land rights.

Table 5.10: Logistic regression analysis of grazing and cultivation rights (RIGHTS) on sample farms in KwaZulu-Natal, 1995.

Variables	Regression Coefficient	Standard Error	Asymptotic t-statistic
TURN	-0,000099	0,000073	-1,3585
SUGAR	-1,2704	0,487	-2,6086
DAIRY	-0,4605	0,498	-0,9247
MGT1	0,2982	0,1913	1,5588
CONSTANT	1,4263	0,3991	3,5738

Likelihood ratio Chi-square test statistic

Model	11,896**	Degrees of freedom = 4
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Correct prediction (percentage)

Total	70,68
Rights	89,77
No Rights	33,33

**P < 0,05

5.4 Conclusions

Cash wages are an important part of a farm labourer's total remuneration. In commercial agriculture labourers often receive both a cash wage and payments in kind. Estimation of the total remuneration package is difficult because the valuation of grazing rights, housing and cultivation rights is subjective. The study suggests that, all things not being equal, farmers who pay relatively lower cash wages tend to pay relatively higher rations and allocate more land

rights. Dairy farmers pay relatively higher cash wages than sugar-cane or beef farmers for general labour (possibly because dairy workers have more skills) and also provide slightly more rations than their beef and sugar counterparts. Beef labourers are more likely to benefit from land rights than dairy or sugar labourers, but cash wages are lower.

Minimum wages have been advocated as a way of improving farm workers' remuneration. Respondents in this study indicated that if minimum wages are introduced, inexperienced and unskilled labourers would be retrenched and replaced with machinery and/or contractors. Respondents felt that if minimum wages are introduced, an industrial council should determine the minimum wage, taking enterprise type and region into account. Two-thirds of respondents would pay a cash wage and charge for perquisites if minimum wages were enforced. The remuneration structure would therefore change to a more cash-oriented one. The next step would be to retrench unskilled labour. Clearly, minimum wages would harm those workers they intend to help.

Regression analyses identified significant differences between the average cash wage paid to general labourers on the three types of farm surveyed. Determinants of average cash wages include distance from urban job markets, enterprise type, farm size and labour legislation. Larger farmers (higher turnover) and respondents who had implemented the new labour legislation were paying higher cash wages. Only enterprise type influenced the value of rations paid, with beef and dairy farmers paying more in rations than sugar-cane farmers who, in turn, paid higher cash wages. Larger farmers and sugar-cane producers were less likely to provide land rights to their workers.

CHAPTER 6

FUTURE MANAGEMENT PROBLEMS AND OPPORTUNITIES IN COMMERCIAL AGRICULTURE IN KWAZULU-NATAL

As farmers face not only many problems but also opportunities in agriculture, two related questions were asked at the end of the questionnaire. This chapter provides descriptive statistics as to respondents' views of future management problems and opportunities in agriculture. As this country has experienced political change in the past few years so the management problems and opportunities have changed. Woodburn and Ortmann (1994) carried out a similar study in 1993, prior to the general elections in 1994. Comparisons will be made between these two studies.

6.1 Future management problems

Fifty seven percent of respondents viewed labour as a management problem in the future. Respondents suggested that promises made by organisations (such as ANC and SAAPAWU) would be difficult to deal with. The relationship between labour efficiency and payment of wages was seen as another problem, as were the costs of labour and finding skilled labour.

About 21 percent of respondents Farmers indicated that union activity was of concern, while 14 percent suggested that the government involvement was a problem, especially government interference with, for example, the introduction of labour legislation and the Labour Tenant Bill. Productivity of both labour (in particular) and the farm were cause for concern to 12,7 percent of respondents (Table 6.1). In general labour was perceived as a management problem by the majority of respondents.

Table 6.1: Future management problems for sample farmers in KwaZulu-Natal, 1995
(n=126).

Management Problems	Respondents	
	Frequency	Percentage
Labour	72	57,1
Unions	26	20,6
Government	18	14,3
Productivity	16	12,7
Finance	15	11,9
Theft	7	5,6
Other	22	17,5

Financial difficulties were suggested by 11,9 percent of respondents. Increased cost of labour and capital is a limiting factor on improved productivity of the farm. Inflation and financial management were other problems suggested. Theft of produce and general lawlessness was of concern to six percent of respondents. The "other" problems included education of the population, implementing an objective overtime system, feeding the population, alcohol abuse and intimidation of the labour force.

Woodburn and Ortmann (1994) reported that labour management was of concern to 75,6 percent of respondents, this included union activity (this compares to 77,7 percent of respondents in this study, a slight increase). Twenty-eight percent of respondents expected difficulties in production, especially with regards to the cost-price squeeze. Other problems included political changes, economic and financial problems and climatic difficulties.

6.2 Future management opportunities

Table 6.2 presents respondents' perceived management opportunities for the future. About 34 percent indicated that economics, which includes marketing of produce, opening up of international export markets, finance, beating inflation and increasing efficiency, was an opportunity. In Woodburn and Ortmanns' (1994) study this factor was split into four variables, namely production efficiency, marketing opportunities, diversification and economic recovery.

Respondents now seem to place less emphasis on these variables and more on labour. This may be due to the labour-oriented nature of the questionnaire or because labour has become a more important factor on the farm due to the introduction of new labour legislation. Respondents suggested that labour upliftment was a significant management opportunity. Increasing labours' responsibility on the farm was viewed as important. Certain respondents felt that by encouraging labour to become more involved in the running of the business, they may be able to restore and maintain harmony on the farm. Labour upliftment includes human relations, motivation and improved living standards.

Training and educating labour was seen as a management opportunity by 13 percent of respondents. Increasing productivity and mechanisation were each regarded as future opportunities by 7,5 percent of respondents, while two percent of farmers indicated that reduction of labour would be important. Eleven percent of respondents were unsure whether there were any management opportunities in the future.

Table 6.2: Future management opportunities for sample farmers in KwaZulu-Natal, 1995
(n=93).

Management Opportunities	Respondents	
	Frequency	Percentage
Economics	32	34,4
Upliftment	31	33,3
Training	12	12,9
Mechanisation	7	7,5
Productivity	7	7,5
Reduced employment	2	2,2
Unsure	11	11,8

Woodburn and Ortmann (1994) reported that improved production efficiency, marketing, diversification, economic recovery and water storage were perceived by respondents as important management opportunities in the future.

6.3 Conclusions

The majority of respondents perceived labour as a problem in the future, especially as some organisations have given labour false hopes regarding improved wages and working conditions. The farmer now has to deal with a labour force that was promised opportunities which cannot be delivered in the short term. Education and training of labour may be a means of delivering these promises of a better life. The majority of the problems reviewed are of an exogenous nature. The farmer can respond or adapt to them.

The introduction of unions to agriculture is viewed as a problem, as the unions are seen to break down the relationship between farmers and their labourers. Negotiating with labour over wages is expected to become a lengthy and destructive process, as more time is spent negotiating with labour unions and less time is spent on other, perhaps more important, issues. Respondents view the introduction of labour and other legislation to agriculture as government interference.

The management opportunities perceived by respondents are endogenous in nature and can be controlled by them; for example, farmers can implement training programmes and increase the responsibilities of labour. Respondents may feel that by increasing labourers' responsibilities, productivity may increase as labour becomes more involved in the management of the farm. Training of labour is important as this may increase the marginal product of labour.

Marketing of produce, free markets, opening up of international markets and increased financial security are other opportunities for the future. Woodburn and Ortmann (1994) indicated that labour management would be the most difficult management problem over the next ten years. It is interesting to note that two years later labour management is still seen as a problem for the future as well as an opportunity.

POLICY IMPLICATIONS AND CONCLUSIONS

There are many role players involved in the agricultural labour field, including labour unions and government, who wish to see a better living standard attained by agricultural labour, and farmers' unions and farmers, who wish to enhance the productivity and profitability of the agricultural sector.

With the introduction of new labour legislation, farmers' approach to dealing with labour is expected to change. According to De Klerk (1993), labour in the past was exploited as the commercial farm lobby wielded power which was disproportionate to its size. The new labour legislation is aimed at eliminating exploitation of labour. COSATU, their affiliate SAAPAWU, and other smaller agricultural labour unions are active in 'overseeing' the implementation of the legislation and in recruiting farm workers.

The new legislation generates both benefits and costs for those involved, especially farmers and labourers. Farmers, who face higher wage and transaction costs, are expected to benefit through increased labour productivity owing to labourers' improved working conditions. Benefits for labourers include working hours and pay, and an opportunity to voice their opinions through unions and the agricultural labour court. Introduction of the legislation, however, needs to be supplemented with policies on education and health. Labourers who are healthy are more productive, and educating labourers will improve their job prospects. Education increases labourers' productivity and reservation price, leading to higher wages.

Enforcement of the legislation is a problem, however, because there are few inspectors and

access to transport is problematic (FWRRP, 1995). The fact that farms cover a large geographical area and less than 1,9 percent of farms employ more than 50 employees is a hindrance to law enforcement and unionisation of workers. It is therefore possible that only labour on larger corporate-owned farms will be unionised.

Large farms close to urban areas may be the first to be unionised, as farm labourers see the benefits (such as higher wages and better working conditions) enjoyed by union members in the industrial sector. Access to these farms is easier and the labourers generally receive higher wages, making recruiting easier. However, in general, unionisation of agricultural labour is expected to be a long and tedious process. In fact, the majority of agricultural workers may not become union members because of the logistical problems and costs faced by unions in recruiting farm labour, and workers' choice not to become members. It appears, therefore, that the unions' main function may be one of "watch dog", to see that agricultural labour is fairly treated, both by government and farmers.

Farmers' transaction costs with respect to labour have increased as they now have to have written contracts with each labourer, maintain extensive records for the Unemployment Insurance Fund, and may have to deal with strikes (and/or bargaining) if labourers are members of a trade union. As the cost of labour increases, farmers are expected to substitute labour with contractors, machinery or other forms of labour-saving technology. As the legislation is paternalistic by nature, it does not allow for any flexibility. This restricts farmers from adapting the legislation to their situation, which increases costs. Although the majority of farmers have implemented the legislation, they still feel it needs to be more flexible. Hours worked per week and payment for overtime work seem to be the most problematic. This may be due to the risky nature of farming;

for example, fires, calving and other problems may occur outside the daily working hours. Farmers would have to pay for overtime, work where as previously this was part of the job.

There is scope for machinery and labour contractors to operate in commercial agriculture, but they have to operate efficiently and timeously to maintain their competitive advantage. Regression analysis showed that the new legislation is a factor in the decision to contract in or not, as farmers see contractors as a means of coping with the legislation.

Implementation of minimum wages, if strictly enforced, may cause farmers to lay off workers and adopt a more capital-intensive or 'contracting' production strategy. Unskilled and inexperienced workers may be retrenched first. Labour trying to enter the market may be worse off as there may be fewer job opportunities with greater labour substitution. Displaced labour may be taken up partly by contractors. It may be preferable for the market to operate in determining the relevant wage rate. Individual labourers can then decide whether they would wish to work for the going wage or not.

Educating workers and farmers about their rights and duties as stipulated by the legislation is considered important. This has particular relevance to the role of the service contract. Only, 30 percent of respondents had service contracts with their workers. This contract is important because it stipulates a workers' wage, job description, duties, working hours and the notice period should the worker wish to resign.

Many labourers do not understand their rights under the new legislation, because they are generally poorly educated. The legislation, introduced to protect them and improve their living

standards, does not help them if they do not understand their rights, as well as their duties and responsibilities. The government and other organisations (such as farmer and labour unions) should set about rectifying this problem by educating the (rural) population. Farmers may benefit if they implement training courses and allow their workers to become more involved in the running of the farm. Transparency is important, and the implementation of incentive structures could improve worker productivity.

Education is a long-term solution to the problems that agricultural labourers face. At present labour unions are calling for more restrictive legislation, while farmers' unions ask for more flexible legislation. Greater restrictions placed on the relationship between farmers and labourers may cause farmers to replace labour with machinery and other labour-saving production methods, thus worsening the unemployment problem.

Respondents indicated that if minimum wages are introduced an industrial council should determine the wage, taking regional and enterprise differences into account. The remuneration structure on the farm may, however, be changed to a more cash-oriented system. Regression analysis indicated that farm size, distance from urban job markets and the new legislation are determinants of cash wage levels. Enterprise type affects payments in kind, with beef farms offering more land rights and labour on dairy farms receiving more rations than their beef and sugar counterparts.

It appears that labour legislation needs to be adapted, especially in the areas of leave and maternity leave. Hamman (1994) noted that the new legislation is, in certain respects, below the standards set down by the International Labour Organisation. It is important to note, however,

that if the legislation is to maintain the standards set by the ILO, it must be made more flexible to allow for the risky nature of agriculture.

Emerging farmers may now be faced with greater labour costs as they enter farming, thus increasing the strain on their capital base. Their ability to finance capital expenditure is limited, therefore they tend to rely on labour as a production input. The new legislation may therefore make it more difficult for emerging farmers to enter and remain in agriculture.

SUMMARY

Labour in commercial agriculture is a contentious issue because of perceived low wages and relatively poor working conditions. New labour legislation was introduced to agriculture in September 1993 to address these issues and include: the Basic Conditions of Employment Act (BCEA), Unemployment Insurance Act (UIA) and the Agricultural Labour Act (ALA). The BCEA stipulates number of leave days per year, working hours, and payment for overtime. The UIA allows for the creation of the Unemployment Insurance Fund which is established to pay out benefits to permanently employed labourers (who work for a farmer for more than four months per year). The benefits include unemployment, illness and maternity benefits. The ALA enables trade unions registered with the National Manpower Commission to enter agriculture and recruit members. It is expected that they will find it difficult to recruit members owing to the wide geographical dispersion of farms and because a large proportion of farms employ less than 10 labourers. Their role will revert to one of "watch dog". The Act allows for the creation of an Agricultural Labour Court which deals with unfair dismissals and labour practices.

Introduction of the new legislation is deemed necessary to enhance the lives of workers who were previously disenfranchised. Labourers who remain in agriculture will be better off, as their living and working conditions, as well as remuneration levels, are improved. However, the legislation is expected to increase farmers' transaction costs with respect to labour, change agriculture's institutional framework, and may enhance the demand for labour and machinery contractors, machinery and other technologies as labour costs increase. Worker productivity may increase, but the new legislation should be complemented with improved education and health policies.

Thirty-six percent of respondents use machinery contractors, and 7,5 percent labour contractors. Machinery and labour contractors are a means to cope with the new legislation. Contractors offer services in ploughing, harvesting and labour replacement. The majority of respondents indicated that harvesting was an area of greatest potential for contractors. The decision to use machinery contractors is influenced by enterprise type, farm size and compliance with the new labour legislation.

Unions have indicated that they would like to see minimum wages introduced to agriculture. Respondents indicated that if minimum wages were enforced, inexperienced and unskilled workers would be the first to be retrenched. The remuneration structure on farms would become more cash-oriented, and labourers would be replaced with machinery, labour and machinery contractors, and other technologies. Respondents indicated that an industrial council should determine minimum wages, if they are introduced, taking regional and enterprise variation into account. However, this form of legislation may harm the people it intended to help.

Labourers normally receive both cash wages and perquisites, which include rations, grazing rights, cultivation rights and housing. Workers' remuneration package depends on enterprise type, farm size, distance from the urban job market and compliance with the new legislation. Dairy farmers provide more rations for their workers than beef or sugar-cane farmers. Beef farmers provide more land rights. Larger farmers pay more cash wages. Farmers who are closer to urban centres tend to pay higher cash wages, as the reservation price of labour is greater. Compliance with the new labour legislation has increased the cash wages of workers.

Farmers feel that labour, government and unions will create management problems for them

during the next ten years. Labour inefficiency and payment of wages are perceived as important problems. Promises made by political organisations are also seen as obstacles, as farmers have to deal with false hopes and a disgruntled labour force. Economics (including increased efficiency, marketing and exportation of produce, and finance) and labour upliftment (involving labour in the running of the farm and improving their living standards) are seen as the best management opportunities for the future. Although labour is viewed as a problem, many respondents also suggest it as an opportunity for the future, with training being emphasised.

If more legislation is introduced to agriculture, it is important that it be flexible, allowing for the varying nature of agriculture. Policies on education and health should be implemented so as to maintain a healthy, educated and more productive labour force.

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APPENDIX
FARMER'S QUESTIONNAIRE

DEPARTMENT OF AGRICULTURAL ECONOMICS

UNIVERSITY OF NATAL

MARCH 1995

TO BE COMPLETED BY THE PRINCIPAL FARM DECISION-MAKER OF THE FARM BUSINESS.

The objectives of this study are to gauge farmers' perceptions of the new labour legislation introduced in September 1993 and to see how the legislation affects the farmer and his business. The questionnaire considers the impacts of trade unions, minimum wages, and contractors on farm organisation.

Please answer every question unless it does not specifically pertain to you. **YOUR SURVEY RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL.** Your cooperation in completing this questionnaire is greatly appreciated.

1. Code: _____

A. **Farm Business**

The following questions deal with general aspects of your farm business.

2. Please tick the phrase which best describes the farm business with which you are involved.

- ☐ Individual Owner
- ☐ Partnership
- ☐ Company
- ☐ Trust
- ☐ Close Corporation
- ☐ Other (please describe) _____

3. How many hectares does the farm business

own? _____ Ha

cash rent? _____ Ha

share lease? _____ Ha

4. What is the distance from your farm to the nearest large town or city?

Distance _____ Km

Large town/City _____

5. What is your level of formal education? Please tick the appropriate space.

Standard 6 - 9 _____

Matric _____

Diploma _____

Degree _____

6. What is your age? _____ years

7. Is the farm your sole source of income? Tick the appropriate space.

Yes _____

No _____

If No, what other sources of income do you have?

Off-farm business _____

Employee of another firm _____

Investments _____

Other (please specify)

8. What is your typical farm turnover (gross income) per year?

R _____

9. What are the farm's total liabilities at present?

R _____

10. What is the approximate market value of the farm's total assets at present (i.e. land, machinery, livestock, etc)?

R _____

11. What is your total annual wage bill for labour?

R _____

12. What are your main farming enterprises? If 'other' please specify.

Enterprise(s)	Size*	Percentage of Farm Turnover
Sugar-cane (ha)		
Timber (ha)		
Maize (ha)		
Vegetables (ha)		
Dairy (milking cows)		
Beef (breeding cows)		
Sheep (breeding ewes)		
Other (please specify)		

* Indicate the number of cows, hectares, etc.

B. Labour

The next set of questions deals with labour on your farm.

13. How many labourers are employed on your farm, how many hours a week do they work, and what is their basic cash wage per day/week/month?

	Labourers	Number employed	Number of hours worked/ week	Basic Cash wage* (R)	Cash Bonus**
Permanent Labourers	Tractor drivers				
	Truck drivers				
	Indunas				
	Others (please specify)				
Casual Labourers					

* Cash wage may be denoted as a daily, weekly or monthly figure. Please specify the time period.

** Indicate the value of the bonus given as well as the time period or quantity (eg R5/hour or R10/50kg of cane).

14. Do you operate on a task-orientated system?

Yes ____

No ____

15. What percentage of your **permanent** labourers live

on the farm? ____ %

off the farm? ____ %

16. For the **permanent** labourer on the farm, do you provide the following? Tick the appropriate box.

	No	Yes	Indicate type and amount*	For Example
Housing?				Brick R80/month
Grazing Rights?				5 cattle 5 sheep
Cultivated area?				1 hectare
Rations?				R50/month
Milk?**				2 litres/ day
Clothing?				R150/year

* Estimated value in Rand terms per day, week, month or year. Please specify the time period.

** Milk in litres/day.

17. What percentage of your **permanent** work force fall into the following age categories?

Under 20 _____ %

20 - 39 _____ %

40 and over _____ %

18. How many days leave per year do the **permanent** labourers receive, excluding public holidays and sick leave? _____

19. Do you as the employer have a written contract with your **permanent** labourers? Tick the appropriate space.

Yes _____

No _____

If Yes, please explain why?

20. What percentage of **casual** labourers live

on the farm? _____ %

off the farm? _____ %

21. Do you provide housing for your casual labourers on the farm? Tick the appropriate space.

Yes _____

No _____

C. Labour Legislation

The following questions deal with the implementation of the new labour legislation.

22. As an employer of labour have you implemented the new labour legislation, which was introduced in September 1993, with specific reference to:

a. **Basic Conditions of Employment Act**? Tick the appropriate space.

All _____

Partly _____

None _____

b. **Unemployment Insurance Fund Act**? Tick the appropriate space.

All _____

None _____

If **None** appears in one of the above please tick the reasons why the specific legislation has not been implemented?

Costly ☐

Inflexible ☐

Time consuming ☐

Unclear ☐

Other (specify)

23. Have you used the proper dismissal procedures as laid down by the **Agricultural Labour Act**? Tick the appropriate space.

Yes ☐

No ☐

24. Have you been taken to the Agricultural Labour Court for any reason, eg. unfair dismissal? Tick the appropriate space.

Yes ☐

No ☐

25. How much of the above mentioned legislation had you implemented before it was legislated? Tick the appropriate spaces.

	All	Some	None
Hours Worked		N/A	
Public holidays			
Overtime pay			
Labour Records			
Service contract		N/A	
Dismissal procedures			

26. Do you as a farmer believe labour legislation is either necessary, possibly needed or totally unnecessary? Tick the appropriate space.

Necessary _____

Possibly needed _____

Totally unnecessary _____

27. Is the legislation (Tick the appropriate spaces)

	Yes	No
Clear?		
Flexible?		
Time consuming?		
Costly?		

28. What changes would you like to see being made to the present (new) legislation?

	Yes	No
Increased clarity		
More flexibility		
Remain the same		
Reduce its powers		
Other (please specify)		

29. Has the new labour legislation affected your farming costs in any way? Tick the appropriate space.

Yes ☐

No ☐

If yes, in which way have they affected your farming costs?

30. Do you employ same number, more or less casual labourers than before the legislation was introduced? Tick the appropriate space.

Same ☐

More ☐

Less ☐

31. Have you retrenched some of your **permanent** labourers because of the legislation? Tick the appropriate space.

Yes ☐

No ☐

If yes, could you please expand?

32. If you have retrenched some of your permanent labourers, how have you dealt with the loss of the labourers? Please tick the appropriate space(s).

Increased mechanisation ☐

Used new technology ☐

Employed contractors ☐

Other (please specify)

D. Mechanisation

The next set of questions deals with the substitution of machinery for labour.

Note: If you have not bought machinery to replace labour do not answer the questions 33 to 36.

33. What type of machinery have you bought to replace your labour? Tick the appropriate space.

Tractor _____

Harvesters _____

Ploughs _____

Other (please specify)

34. How was the mechanisation financed? Tick the appropriate space(s).

Hire Purchase _____

Lease _____

Overdraft _____

Cash _____

35. Was the increase in mechanisation due to the new labour legislation? Tick the appropriate space.

Yes _____

No _____

36. Would you substitute farm machinery with a contractor? Tick the appropriate space.

Yes ☐

No ☐

E. New Technology

This section deals with the substitution of new technologies for labour.

37. Have you introduced any labour saving technologies to restrict labour employment? Tick the appropriate space.

Yes ☐

No ☐

If yes, what type of technology? Tick the appropriate space.

Weedicides ☐

New Varieties/Breeds ☐

Machinery ☐

Other (please specify)

38. Was the introduction of the new technology due to the implementation of the new legislation? Tick the appropriate space.

Yes ☐

No ☐

39. How did you find out about this new technology? Tick the appropriate option(s).

Extension Officer _____

Other farmers _____

Farm Magazines _____

University specialist _____

Consultants _____

Technical bulletins _____

Other(please specify)

F. Contractors

This section deals with the use of contractors in farming as a means of reducing the costs a farmer faces due to the introduction of the new labour legislation.

40. Do you use any contractors on your farm? Tick the appropriate space.

Yes _____

No _____

If yes, what type of contractor? Tick the appropriate space.

Labour Contractor _____

Machinery contractor _____

Other (please specify)

41. If the above question was answered with a No, have you been approached by any contractors? Tick the appropriate space.

Yes ☐

No ☐

If **No**, would you use a contractor if he approached you offering his services? Tick the appropriate space.

Yes ☐

No ☐

42. Would you be willing to contract out your services to other farmers? Tick the appropriate space.

Yes ☐

No ☐

Please explain?

43. Has the new labour legislation changed your opinion on contractors? Tick the appropriate space.

Yes ☐

No ☐

If yes, do you see them as a way of coping with the legislation?

Yes ☐

No ☐

44. Where on your farm do you think contractors could be of greatest help to you? Tick the appropriate option(s).

Labour replacement ____

Ploughing ____

Harvesting ____

Other (please specify)

G. Minimum Wages

This section deals with the implementation of minimum wage law. A minimum wage is a wage set by law and is binding on employers who pay wages below the minimum wage.

45. Do you think a minimum wage should be introduced in agriculture? Tick the appropriate space.

Yes ____

No ____

Please explain?

46. If a minimum wage is introduced to agriculture above the present remuneration package of unskilled and skilled labour, how would you prefer to respond? Please tick the appropriate spaces.

	Unskilled labour	Skilled labour
	Minimum wage above present wage	Minimum wage above present wage
Will not affect employment		
Employ more permanent labour		
Reduce employment of permanent labourers by less than the wage increase		
Reduce employment of permanent labourers by more than the wage increase		
Employ labour contractors		
Employ machinery contractors		
Replace labour with own machinery		
Employ more casual labourers		
Employ less casual labourers		

By what percentage would the cost of labour have to increase above its current cost before you started making the changes ticked above? _____ %

47. Under each category (skilled and unskilled) which type of worker will be laid off first following the imposition of minimum wages? Please tick the appropriate spaces.

	Skilled labourer	Unskilled labourer
Young?		
Inexperienced?		
Women?		

48. How do you think minimum wages will affect your "payment in kind" structure? Tick the appropriate space.

Pay purely a cash wage _____

Pay a cash wage charging for the perks _____

(eg. Housing, grazing, rations)

No change in the present structure _____

49. If minimum wages are forced on agriculture, which would you as a farmer prefer? Tick the appropriate box.

- (a) A minimum wage that is set for the industry as a whole by the government (as in Zimbabwe).

☐

- (b) A minimum wage determined by the Wage Act which allows for regional and enterprise differences. This legislation is enforceable by law.

☐

- © A minimum wage negotiated annually in an industrial council in the region. This will also be adaptable to the region and farming enterprise.

☐

H. Education

This short section deals with the education of your labourers.

50. Do you feel education of your labour is important? Tick the appropriate space.

Yes ☐

No ☐

Please explain?

51. Have any of your labourers been on any training courses, eg. driver's course, A.I. course?

Tick the appropriate space.

Yes ☐

No ☐

Please expand?

I. Trade Unions

The questions in this section deal with the introduction of a trade union in agriculture and how it will affect your farm business.

52. What is your opinion on trade unions entering agriculture? Tick the appropriate space.

Favourable _____

Impartial _____

Not favourable _____

53. What role, if any, do you think trade unions can play in agriculture? Please tick the appropriate space.

Arrange training courses _____

Representation in agricultural labour court _____

Decreased time costs when bargaining with labour _____

Increase the permanency of the present labour force _____

Other (please specify)

54. Would you allow unions to recruit members on your farm? Tick the appropriate space.

Yes _____

No _____

55. Have any of your employees been asked to join a trade union? Tick the appropriate space.

Yes ____

No ____

56. Are any of your employees members of a trade union? Tick the appropriate space.

Yes ____

No ____

57. Over the next ten years what do you anticipate will be the most difficult management problems?

58. Over the next ten years what do you think will be the most significant management opportunities?

59. Would you like to see the results of this study? Tick the appropriate space.

Yes ____

No ____

THANK YOU FOR PARTICIPATING IN THIS STUDY