Title: “Skills and Quality Production in the South African Wine Industry”

Candidate: Mercy Brown-Luthango

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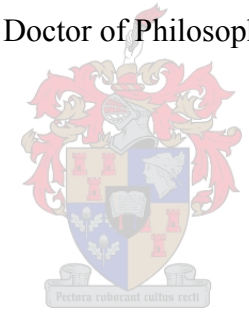

Promoter: Prof. Joachim Ewert

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I, the undersigned, hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

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Abstract

There is a general consensus amongst industry experts that in order for the South African wine industry to sustain the success it has enjoyed thus far in export markets like the United Kingdom, the Netherlands and Sweden and to become even more internationally competitive, its has to improve the quality of its wine and move into higher price categories of the wine market. Skills' training has been highlighted as a significant component of a strategy to improve the quality of South African wine and its competitiveness in world markets. The aim of this study was to find out how the South African wine industry is adapting to new vineyard practices necessary for quality production at farm level, especially as far as training of vineyard workers is concerned. Four theoretical perspectives are discussed in relation to the restructuring of the world agro-food industry, the question of quality and the issue of training as it relates the production of quality wine. These theoretical perspectives are regulation theory, global commodity chain analysis, actor-network theory and the ergonomics perspective on the skills needed for the production of quality wine. The focus of the study was on different kinds of producers, i.e. co-operative cellars, private cellars and estates. The research covered two of the main wine-producing areas, namely Paarl and the Robertson area. At each farm, interviews were conducted with the farm owner, farm manager or viticulturist as well as a number of workers. Interviews were also conducted with prominent wine makers, skills trainers and facilitators and other industry experts. This was done to gain a better understanding of the South African wine industry as well as the major issues and debates as far as quality production and skills training are concerned. The study found that although there has been a general upgrading of skills in relation to new vineyard practices for quality production, workers at the co-operatives and estates studied do not yet receive the kind of in-depth knowledge which the theory argues is necessary for the production of quality wine. The private cellars invest much more time and resources in the training of their workforce. As far as the private cellars and estates are concerned there is a correlation between the quality of wine and training. The private cellars sell more than 50% of their wine in the premium, super-premium, ultra-premium and icon categories of the international wine market. The estates sell 70% and more of their wine in the basic category. The co-operatives on the other hand do not confirm the theory. In the absence of formal training, they manage to produce wine that competes well on an inter and intra-regional level. The evidence suggests that in a country like South Africa, in the context of a legacy of low education and literacy levels amongst workers, repeated demonstration and strict supervision can compensate to a certain degree for a lack of in-depth knowledge and discretion amongst workers.

Opsomming

Kenners in die Suid Afrikaanse wynbedryf is dit eens dat dit noodsaaklik is vir die bedryf om die kwaliteit van Suid-Afrikaanse wyn te verbeter en in hoër prysklasse, byvoorbeeld die premium prysklas en hoër, in te beweeg indien die bedryf suksesvol op die internasionale wynmark wil kompeteeer. Vaardigheidsontwikkeling is uitgesonder as ‘n belangrike komponent van enige strategie om die kwaliteit van Suid-Afrikaanse wyn en die bedryf se posisie in die internasional wynbedryf te verbeter. Die doel van hierdie studie was om vas te stel hoe die Suid-Afrikaanse wynbedryf, op plaasvlak, aanpas in terme van wingerdpraktyke wat benodig word vir die produksie van kwaliteit wyn, met ‘n spesifieke fokus op vaardigheidsontwikkeling. Die tesis maak gebruik van vier teoretiese perspektiewe om die herstrukturering van die internasionale landbou bedryf te bespreek naamlik *regulation theory*, *global commodity chain analysis, actor-network theory* en die *ergonomics* perspektief. Die studie het op verskillende soorte produsente naamlik koöperasies, privaatkelders en landgoedere gefokus. Die navorsing is uitgevoer in die Paarl en Robertson wynstreke. Onderhoude was gevoer met werkers sowel as plaaseienaars of plaasbestuurders en wingerdkundiges op elke plaas. Onderhoude was ook gevoer met prominente wynmakers, vaardigheids en opleidingsfasiliteerders sowel as a breë spektrum van deskundiges in die wynbedryf. Die doel hiervan was om ‘n deeglike ondersoek in te stel na die wynbedryf sowel as die grootste uitdagings met betrekking tot die produksie van kwaliteit wyn en vaardigheidsontwikkeling wat die bedryf tans in die gesig staar. Die studie het gevind dat alhoewel daar oor die algemeen ‘n groter fokus is om te verseker dat werkers die regte wingerdpraktyke op die korrekte manier uitvoer vir kwaliteitsproduksie, kry werkers by die plase wat deel is van koöperasies sowel as die werkers by die landgoedere nie die in-diepte kennis wat volgens die teorie noodsaaklik is vir kwaliteitsproduksie nie. Die privaatkelders spandeer meer tyd en finansies aan die opleiding en vaardigheidsontwikkeling van wingerdwerkers. Die navorsing toon ‘n korrelasie tussen die kwaliteit wyn wat die privaatkelders en landgoedere produseer en vaardigheidsontwikkeling. Die privaatkelders verkoop meer as 50% van hul wyn in die premium, super-premium, ultra-premium en ‘icon’ prysklas op die internasionale wynmark. Die landgoedere aan die ander kant verkoop 70% of meer van hul wyn in die basiese prysklas. Die koöperasies bevestig egter nie die teorie nie. Alhoewel hulle nie formele opleiding aan hul werkers verskaf nie, produseer hulle tog wyn wat goed op inter en intra-streeksvlak presteer. Die bevindinge van die studie suggereer dat in ‘n land soos Suid-Afrika, met ‘n geskiedenis van ‘n swak onderwysstelsel en lae geletterdheid onder werkers, word herhaaldelike demonstrasie en streng toesig gebruik om op te maak vir ‘n gebrek aan in-diepte kennis en diskresie onder werkers.

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Chapter 1: Introduction

1. Background

The South African wine industry is going through an exciting period of transformation. South Africa's reintegration into the world economy, following the democratic transition in 1994, has presented both new opportunities as well as new challenges for the South African wine industry. On the one hand, South Africa now has access to new markets, but on the other hand, it has to compete with other major wine producing countries in the global market. The period following the 1994 elections saw some impressive growth in exports as the positive spirit and "euphoria" that most South Africans felt during this time was also evident in the attitude of the rest of the world towards South Africa. Between 1993 and 1999 exports increased tenfold (Reid, 2000). However this boom could not be sustained solely on positive sentiment and between 1998 and 1999 exports grew by a mere 5% (Ewert, 2000). A slow growing domestic alcoholic beverage market means that the South African wine industry will have to become stronger in export markets if it is to survive. In order to compete successfully in the export market though, South African wine producers will have to bring their production processes in line with the trends in the international consumer market.

A worldwide wine glut, coupled with a decrease in wine consumption, especially in traditional wine-drinking countries like France and Italy as consumers are opting for a healthier lifestyle, mean that trading conditions on the international wine market are particularly harsh. In addition, there has been a decrease in consumption of wine. This trend is accompanied by an increase in the demand for better quality wine. South Africa, as one of the New World Producers faces competition from countries such as Australia, New Zealand, Chile and Argentina in terms of both quality and value (Financial Mail, 1999). The shift towards better quality wine has put South Africa as primarily a producer of bulk, low-quality, cheap wine under tremendous pressure to bring its production processes in line with global trends (Mateme, 2001). This means that if the South African wine industry is to compete successfully on the international wine market it has to move out of the basic category (wines that sell for below £3.99) into the premium and super-premium categories of the market (wines that sell for between £4.00 and £8.99).

The new international trading environment has opened up new divisions in the wine industry.

Not all farms or co-operatives are able to maximize on the new opportunities that the increasingly open international market affords them. The effects have been largely uneven throughout the wine industry. According to Ewert, trade liberalization and de-regulation have produced new winners and losers in the wine industry. On the one hand there are those co-operatives and private wine cellars that are still oriented towards bulk production and simply do not have the necessary resources, innovative capacity or marketing and business skills to transform their production practices in order to answer to the demands of the international export market. On the other hand there are the private cellars and estates that possess the resources and technical capacity and have made the switch from volume production to quality production (Ewert, 1996:153). They are the ones that are in a position to take full advantage of the possibilities that the export market offers.

Skills development and training of wine industry workers have been identified by industry players and commentators like the South African Wine and Brandy Company and Vision 2020 as one of the crucial elements of any strategy to transform the industry and to make it more internationally competitive. Earlier investigations into the status of training and skills development in the industry indicate that formal training of workers, especially vineyard workers was not necessarily high on the priority list of wine farmers (Ewert and Hamman, 1999).

The concept of 'quality' is not unproblematic as it is difficult to assess and measure. According to Linton and Wall (1996) customers use seven criteria which include flavour, consistency, cost, packaging, etc. to assess the quality of a wine. Riley (1996) highlights cool, clean, fresh, ripe, colorful and flavorsome fruit as important specifications for quality grapes. Interviews with ten of the top wine makers[1] in South Africa revealed that there is a general agreement amongst these wine makers that the concept "quality" wine has both subjective and objective elements. These elements include a good balance, good aroma, lingering aftertaste and complexity. According to the wine makers, quality is subjective and influenced by market changes and needs. They agree that good vineyard practices and the correct matching of terroir and cultivar are essential for the achievement of quality wine. For the purpose of this study, price is taken to be a valid indicator of quality. Internationally wine is classified into different categories, namely basic wine, premium, super-premium, ultra-premium and icon wines[2].

[1] Including Francois Naude, Neil Ellis, David Trafford, Chris Keet and Etienne le Riche
[2] These are the categories used by Rabobank

Measured by price 'quality' wines fall into the last four categories. Awards and prizes received at wine competitions will also be used as an indicator of quality in this thesis.

Skills[3] as used in this thesis primarily relate to pruning, suckering, training of young vines, canopy and harvest control in the vineyard. The literature does suggest that there are certain best practices with regards to the afore-mentioned vineyard practices which have a bearing on the quality of grapes and ultimately wine production.

2. Problem Statement and Focus

Given the current situation on the worldwide wine market which is forcing producers to move out of the basic wine category into premium and higher categories, the study is interested in finding out how producers are responding to these challenges. In order to produce better quality wine and move into higher price categories producers need to change their vineyard practises[4].
The study thus focuses on four questions:

1) How are co-operative farms and private cellars responding to the demand for quality production?
2) What vineyard practises and skills are required for quality production?
3) How do these practices and skills get diffused and transferred to workers?
4) Is there a difference between co-operative cellars, private cellars and estates with regards to the training of workers in these new skills and practises?

In order to interrogate the issue of quality wine production and skills training as systematically as possible, it was decided to extend the analyses to different levels in the industry and different wine-making areas. To this end, research was conducted in co-operative wine cellars, private wine cellars and private estates in two wine-making areas, Paarl and Robertson. The opinions of a number of wine industry experts and commentators which included prominent wine makers, human resources practitioners, training facilitators and officials linked to important industry

[3] These relate only to viticultural skills, oenological skills are excluded from the analysis.

[4] The relationship between skills and quality production is a contentious one. Methodologically speaking, it is impossible to isolate the effect of skills on quality wine production as other variables e.g. technology, terroir, long-term practices and oenology, etc. also come into play. However, all things being equal, the assumption is made that better skills lead to better quality wine.

bodies like the South African Wine and Brandy Company, the Vineyard Academy, the Paarl Wine Route, the Robertson Wine Valley and the Wines of South Africa (WOSA) were also sought.

3. Contribution of the thesis

This thesis makes an important contribution to a very limited national and international knowledge-base concerning the issue of how the demand for quality production in the wine industry impacts on skills development and training at farm level. The thesis begins to question widely held assumptions about the necessity of a well-skilled workforce for the production of quality wine through an extensive analysis of the training system on farms located at different levels within South African wine industry. In this sense this study could provide the basis for future comparative studies between South Africa and other new world wine producers. Another very significant contribution of the thesis is that it sheds new light on how South African wine producers are engaging with the state's skills development and training framework as well as training initiatives at industry level. The thesis makes important recommendations for changes which need to be made both at a national and industry level in order to make the institutional framework for skills development and training more useful and accessible to producers.

4. Structure of the Thesis

The thesis is divided into eight chapters. Chapter two outlines the theoretical overview. The main aim of this chapter is to analyse and discuss the question of where the pressure for quality wine production emanates from and how this relates to the issue of skills development and training. In doing so, it uses four theoretical perspectives; regulation theory, global commodity chain analysis, actor-network theory and ergonomics to deal with this question.

Chapter three provides the reader with an overview of the South African wine industry. It also looks at the restructuring of the global wine market and the implications this has for the South African wine industry. This chapter gives an overview of the size and structure of the industry and discusses the major challenges facing the industry, particularly the imperative to produce quality wine and move into higher price points. It also takes a brief look at the history of the industry as a way of analysing why the industry is facing the current quality challenge. Lastly it takes a look at efforts made by the industry to transform and better equip itself to answer the challenges presented by the international wine market.

Chapter four discusses the South African government's attempts to broaden the country's skills base. It firstly discusses the question of why there is a need for skills development and training in South Africa and then provides a detailed account of South Africa's skills legislation framework and the opportunities this presents for employers. After considering the government's attempts to facilitate skills development and the incentives it offers to employers in order to encourage them to train the workforce, the chapter briefly asks the question why employers have been less than enthusiastic about utilising the opportunities to improve the skills of their employees.

After considering the broader skills development framework in chapter four, the thesis homes in on the South African wine industry in chapter five. Chapter five analyses the question of why there is a need for skills development and training in the South African wine industry and consults the opinions of a number of industry experts on this issue. This chapter also explores the various opportunities and incentives available to wine farmers to train their workers.

Chapter six discusses the research methods employed in the study.

Chapter 7 presents and discusses the data collected at the two co-operative wine cellars in Robertson and Paarl. The chapter firstly provides the reader with a broad overview of each cellar, detailing the size and structure of the cellar, its history, vineyard practices, business strategy and training approach amongst other things. It then presents and discusses the views and opinions of the management and workers interviewed at each cellar regarding the issues of quality wine, vineyard practices and training.

Chapter eight focuses on the data collected at the two private cellars and two private estates. It follows a similar format as chapter seven and first provides a brief background on each cellar, its history, size of production, vineyard practices as well as awards obtained as one indicator of the quality of wines produced. The chapter then presents and analyses the opinions expressed by management and workers at each cellar and estate on the issues of quality wine production, vineyard practices and training.

Chapter nine discusses the major conclusions drawn from the research as they pertain to the issue of quality wine production and skills development and training. This chapter also interrogates the question of how the evidence relates to the theory, specifically the ergonomics

theory on the types of skills training and knowledge required for quality production. Chapter nine also offers a few recommendations in relation to skills development and training on the farms studied and for the industry as a whole.

Chapter 2: Theoretical Perspectives

1. Introduction

Globalisation has impacted on every economic sector and has radically altered production on a global scale. One sector in which the dynamics of globalisation are particularly evident is the agricultural sector. Sociologists, and rural sociologists in particular, have over the past few decades applied various theories to the study of the restructuring of global agriculture. This restructuring has caused new actors to emerge. Private institutions and large supermarkets in the North have gained ascendancy and are increasingly determining the rules and terms for global trade in agricultural produce. This chapter will outline two theoretical perspectives popular in the study of the global agriculture sector, regulation theory and global commodity chain analysis. Each theoretical perspective will be discussed in some detail and will then be considered in relation to one of the central concerns of this thesis namely the issue of "quality" and where the pressure for quality emanates from. The chapter will then deal with the question of how producers respond to the demand for quality at farm and district level, especially as far as skills development and training is concerned. It will do so through an analysis of two theoretical perspectives, actor-network theory and the ergonomics perspective. In so doing, the author hopes to provide a holistic picture of the restructuring of the global agriculture sector, how this relates to the "quality" debate and how this translates into practices at farm and district level.

2. Regulation Theory and the Agro-Food Question

Regulation theory is one of the theoretical perspectives which has been used to analyse the restructuring of the global agro-food industries. Using a regulation theoretical perspective, Friedman and McMichael (in Busch and Bain: 2004), argue that each phase of capitalist accumulation is characterized by a specific food regime where a food regime is defined as "the rise and decline of national agricultures as part of the geo-political history of capitalism" (McMichael in Busch and Bain, 2004: 2). For example, the Fordist food regime was based on "Keynesian state regulation, agricultural subsidies and surpluses in the United States and Western Europe, and American hegemony through the export of food surpluses and agri-industrial technologies to developing nations (McMichael in Busch and Bain, 2004).

The post-Fordist food regime on the other hand is based on deregulation of agriculture, especially in the Third World, and increased trade in agricultural produce. Deregulation is

defined as "a subset of regulatory reform and refers to complete or partial elimination of regulation in a sector in order to improve economic performance" (Jones and Einarsson, 1998: 51). A significant level of trade has occurred in the agricultural sector in the last decade. In 2000 alone $558 billion worth of agricultural products were traded (Busch and Bain, 2004: 1). Another feature of the post-Fordist food regime is that mass produced agricultural products have made way for 'non-traditional foods and niche' commodities such as fresh fruits and vegetables and organic produce" (Busch and Bain, 2004: 2). This shift has been accommodated by changing consumer lifestyles and growing consumer demands for healthier, safer, quality foods, especially from consumers in the North.

For example, in the Caribbean where under intense pressure from the IMF and the WTO, countries have been forced to open up their economies and pursue export-led economic policies, traditional agricultural crops such as sugar, cocoa, tobacco and cotton have made way for fresh fruits and vegetables (Andreatta, 1998). This has been facilitated by consumer demands in the North for fresh fruit and vegetables all year around and the advancement of specialized cold storage and preservation technologies which ensure that these fruit and vegetables reach the supermarket shelves in the North in prime condition. In the Dominican Republic for example, the contributions of exports of traditional agricultural crops such as sugar, coffee, cocoa and tobacco, declined from US$504 million to US$310 million between 1979 and 1989 (Raynolds, 1991).

This decline, according to Raynolds, can be attributed to three factors: 1) a decline in the demand for sugar in the North due to health concerns, 2) the adoption of protectionist policies in the North as a way of safeguarding their own domestic sugar producers and 3) a drop in worldwide sugar prices as a result of a sugar surplus and growing international competition (Raynolds, 1991: 216). In addition the country was also pressured by the IMF and the World Bank to implement structural adjustment programmes. Some of the elements of these structural adjustment programs include reduced state support for the production of basic foods for the domestic market and attracting private sector investments in exports of nontraditional agricultural exports (Raynolds, 1991). This resulted in a dramatic increase in export earnings from nontraditional agricultural crops such as tropical root crops like yams, vegetable and horticultural crops such as peppers, tomatoes and green beans and tropical fruits such as melons, pineapples and avocadoes (Raynolds, 1991). The value of exports of these products increased from US$18million to US$45 million during the period 1979 to 1986.

In New Zealand, an intensive deregulation and trade liberalisation programme has resulted in very little protection and support for domestic producers. In a bid to attain some competitive advantage over the US and European countries which have not reduced protection and support for their local producers as enthusiastically as New Zealand, "green protectionism" and organic production have been introduced in New Zealand (Campbell and Coombes, 1999). So for example, whereas the total value of organic food traded in New Zealand in 1990 was US$750, 000 , it is estimated that the return on Kiwigreen kiwifruit alone stood at US$200 million in 1998 (Campbell and Coombes, 1999: 7).

Restructuring of the agricultural sector in South Africa has followed a similar trend. South Africa, as one of the signatories of the General Agreement on Trade and Tariffs (GATT), agreed to reduce trade tariffs. However, an over-zealous South African government, reduced tariffs at an even faster rate than what it was required to do under the GATT. Under GATT South Africa was required to set tariffs on agricultural, forestry and fishing imports at 41.2%, but by 1998 the South African government has reduced tariffs on these produce to 2.2% (Nicholson, 2001). This has left South Africa's borders wide open and pitted South African producers against those in Europe and the United States who still enjoy protection from their governments in the form of agricultural subsidies.

The restructuring of the agro-food sector has also resulted in a shift in the nature of competition and the attainment of competitive advantage. According to Raikes et al, under Post-Fordism "quality" has become the basis for competition compared to Fordism where price and quantity formed the bases of an organisation's competitive advantage (2000). Watts and Goodman (1997) define quality as "the specific attributes of the food or commodity itself such as safety, nutritional content, label, production processes, or branding which are emphasized and regulated" and argue that "attributes of quality, institutional innovation and conventions are constitutive of the new ways in which markets, states and indeed capitalism itself are conceptualized (Watts and Goodman, 1997: 5).

There is general agreement that global agriculture is experiencing a period of intense restructuring. This restructuring occurs at all levels of the agricultural food chain and the last few years have seen a transformation in not only the way that food is produced and processed, but also in the ways in which it is marketed and distributed. According to Friedmann " food is no

longer simply something produced by farmers and bought by consumers, but a profitable product of capitalist enterprise, trans-nationally sourced, processed and marketed (1994: 72). It is also clear from the above discussion that this restructuring is an uneven process as the benefits and costs of this restructuring are not evenly distributed throughout the world.

Moreover, the restructuring of the agro-food sector is a contradictory process. Whereas the dominant discourse is one of deregulation as nation states are being called upon to open up their borders and liberalise at the same time, many agree that this process of deregulation at the level of the nation state is accompanied by a parallel process of re-regulation as new institutions for example the International Monetary Fund, the World Bank, the World Trade Organisation as well as large supermarkets in the North are emerging as what are referred to as "the new agents of regulation" at the international level. According to Busch and Bain " as competition, production processes and consumption linkages in the agro-food sector are re-regulated, new winners and losers will emerge, consequently, private regulations and institutions will be contested as different actors seek to shape the content and the outcomes in their favor" (2004: 3). The next part of this chapter will be devoted to a closer examination of the role and operation of some of these new agents of regulation in the agro-food sector, particularly the World Trade Organisation and powerful retailers in the North.

2.1. Regulation by International and Private Institutions

The World Trade Organisation

Many authors have commented on the role of the World Trade Organisation (WTO) in facilitating and supporting the international trade imbalances between First and Third World countries alluded to above. The WTO was established in 1994 and its primary function is to regulate trade between different countries. On the 13th of October 2004, the WTO had a membership of 148 countries, accounting for 97% of world trade[5].

The WTO incorporated the General Agreement on Trade and Tariffs (GATT) and its role essentially is to ensure that countries implement the GATT. Besides establishing the rules and agreements which ensure the free flow of goods between different countries, the WTO is also responsible for facilitating trade negotiations and settling trade disputes between countries. The WTO, like the United Nations, has international legal status and thus has the power to enforce its

[5] www.wto.org

rules on all member countries (Busch and Bain, 2004). Under the auspices of first the GATT and then the WTO, the last 50 years have seen a dramatic increase in international trade and total trade in goods in 2000 was 22 times what it was in 1950[6]. However the powers of the WTO are not limited to trade in goods only, but also extend to non-trade related activities such as "foreign investment rules, intellectual property rights and domestic regulatory mechanisms such as services for insurance and transport, farm policy and food and environmental standards (International Forum on Globalisation et al, 1999 in Busch and Bain, 2004: 3).

Some of the most important agreements of the WTO, particularly in relation to the agro-food sector, are the Sanitary and Phytosanitary (SPS) Agreement and the Technical Barriers to Trade Agreement. The Sanitary and Phytosanitary (SPS) Agreement "covers the domain of food safety as well as that of animal health and plant pests and diseases and requires that signatories have SPS regulations for imported products that are the same as those for domestically produced goods" (Busch and Bain, 2004: 3). The Technical Barriers to Trade Agreement and the Agreement (TBT) covers technical requirements such as labeling and packaging and basically stipulates that the technical requirements for imported goods be consistent with those of domestically produced goods. The purpose of these agreements is to discourage countries from using non-tariff issues to restrict trade. However it has been argued that the above-mentioned agreements are biased and often place huge burdens on small producers in developing countries who often do not fully understand their requirements nor do they have the resources to meet the sanitary and phytosanitary regulations of importing countries like the United States for example.

In the Dominican Republic for example, the export of oriental vegetables had virtually disappeared by 1989 after having accounted for 13% of total non-traditional agricultural export earnings, due to heavy sanitary and phytosanitary requirements imposed on oriental vegetables by the United States. Between 1987 and 1989 shipments of oriental vegetables from the Dominican Republic were denied entry into the United States, because they were found to contain pesticide residues (Raynolds, 1994: 229). In Argentina, European Union requirements with regards to beef imports have put considerable cost and time burdens on beef producers who now have to separate cattle destined for the European market from those destined for other markets (De Las Carreras, 1998).

[6] www.wto.org

Interestingly, the main proponents of the SPS agreement and the nations that were heavily involved in the drafting of this agreement are the European Union, the United States and Canada. Although the SPS agreement stipulates that importing countries have to provide scientific justification if their national sanitary and phytosanitary requirements are considered to be too stringent, the main drafters of the SPS agreement ensured that ultimately the importing country has the final say about the level of health protection and, according to the SPS agreement countries are under no obligation to change their level of protection (Beaumond, 1998: 79).

It has been said that these "behind-the-border" barriers, which are typically regulations aiming at achieving domestic objectives such as health, safety, environmental and consumer protection, may at times impede trade and competition and encourage inefficient resource allocation (Abel[7], 1998: 3). It is clear from the examples mentioned above that although these agreements are for a worthy cause, i.e. to protect the health concerns of consumers, they can be used as non-tariff trade barriers and place enormous burdens on small producers. Moreover, according to Busch and Bain (2004) these agreements established by the World Trade Organisation have also opened the door for private institutions like supermarkets for example, to come up with their own standards and regulations which they impose on their suppliers. It is to this issue that the chapter now wishes to turn.

Re-regulation? The rise of the supermarkets

The last few years have seen an important trend in the agro-food sector. There is growing pressures on national governments to de-regulate and assume a less interventionist role in agricultural trade, yet at the same time a parallel process of increased private regulation is also taking place. Busch and Bain (2004: 2) argue that " the diminishing ability of the public sector to regulate trade has provided an opportunity for the private sector to reorganize aspects of the market to better suit its needs. The last few decades have seen enormous growth in the number and size of supermarkets. In the United States, the number of supermarkets almost doubled between 1958 and 1972 and by the 90's supermarkets held three quarters of all grocery store sales and 94% of all food store sales (Friedmann, 1991: 74). Supermarkets in the USA and "supercentres" owned by companies like Wal-Mart and Kroger controlled 92% of fresh-produce retailing by 1997 (Oxfam, 2004: 67). In Europe, 69% of European consumers report that they buy their food from supermarkets and make an average of 2.14 trips to the supermarket per week

[7] OECD Director for Trade

(Marsden, 1997: 172). Even the developing world has seen a proliferation in the number of supermarkets. Kenya for example boasts two homegrown supermarket chains, Uchumi and Nakumatt and each of these has about 20 stores of varying size and Zambia with a population of 9.5 million, has 18 supermarkets (Busch and Coombes, 2004: 5).

The growth in supermarket prominence has also been facilitated by changing consumer demands, lifestyles and appetites. Factors such as "greater health consciousness amongst consumers, higher disposable incomes of middle class consumers, improved transportation and communication and increased migration of ethnic groups outside their countries of origin" have all fueled the desire for safer, healthier, "quality" food (Busch and Bain, 2004: 5). This has increased the demand for fresh fruit and vegetables, fresh meat and freshly prepared foods. Consumers have also become more sophisticated and informed about the nutritional value of food, which has raised the stakes in terms of packaging, labeling and branding.

However, it has been argued that the rise in the demand for "quality" foods is not a "natural or neutral" process. In fact, Marsden argues that retailers are active agents in the "construction" of the dimensions of quality and the creation and maintenance of the demand for quality foods. He argues that " …corporate retailers play a key role in translating the quality definitions of food globally, they become key players in the allocation of risks and constraints in supply networks" (1997: 172). Supermarkets create their own set of regulations and agreements which producers have to adhere to. These regulations, according to Marsden, "ensure their dominance over the supply of main food products" (1997: 172). Given the intensification of global competition, shelf space in the supermarkets of the North has become a coveted commodity and suppliers often have no choice but to adhere to these often stringent regulations imposed by supermarkets if they want to sell their produce.

This has changed the nature of competition in the retail sector. Instead of price, competition is now based on "variety, convenience, quality and year-round supply" (Busch and Coombes, 2004). In order to remain competitive, supermarkets are required to continuously experiment with new product lines and to be innovative. Supermarkets in the North for example are purported to put 30 000 new products on their shelves annually (Food Marketing Institute, 1998 in Busch and Bain, 2004). This in turn puts huge pressure on suppliers who have to ensure that they keep up with innovation and technological advances to ensure that they supply the products which are in demand in the North, that these products meet the quality requirements and that

they are able to consistently meet this demand. The intense competition for shelf space in the supermarkets of the North, however has meant that producers often get the short end of the stick as very little of the profits generated actually reach the farm. The share of profits which eventually reaches the farm has declined and continues to decline and farm gate prices now constitute less than 20% of the retail price (Harris et al, 2002 in Busch and Bain, 2004). Oxfam reports for example that the real export prices paid for South African apples have fallen by 33% since 1994 (2004:71). The real prices paid to Florida tomato growers have fallen by 25% since 1992, yet US supermarkets selling these tomatoes have raised the real price to consumers by 46% (Oxfam, 2004:71). The pressure from supermarkets and the intensification of competition in the agricultural sector are changing on-farm relations and have fundamentally affected production and the labour process on the farm.

3. Global Commodity Chain (GCC) Analysis

Regulating theory has been very useful in allowing researchers to make sense of the restructuring in the global agro-food sector. More specifically it allows one to understand the restructuring of the agro-food sector within the context of broader economic restructuring and global capitalist accumulation. It provides a historical perspective on the role of different institutions in creating optimal conditions for capitalist accumulation to take place. According to Busch and Bain (2004: 10) regulation theory "challenges the assumption from neoclassical economics that capitalism is simply reproduced through the laws of supply and demand".

Campbell and Coombes argue that "only regulation theory has shown any promise for examining the continuing crisis in food production and the fractured nature of the global food economy" (1999: 8). However, not everyone is as convinced of the usefulness of regulation theory in explaining the restructuring of global agriculture. Goodman and Watts (1994) for example argue that agricultural restructuring is very different from industrial restructuring and the theoretical tools (regulation theory and Fordism/post-Fordism debates) used to analyse industrial restructuring are not necessarily appropriate for the study of the restructuring process in agriculture. Notwithstanding these criticisms, regulation theory is used in this instance because it is useful in helping us to gain a better understanding of the "rules" of global capitalism and how these are made and legitimized by different institutions and actors. It is especially useful in explaining how private institutions like the World Trade Organisation and big supermarket chains have increasingly come to determine the rules and terms under which trade in agricultural produce occur. It is also useful in providing a framework for understanding

how the notion of "quality" is often used by these private institutions as a means of exclusion and to pit countries and producers against each other. It thus goes some way in explaining where the pressure for quality emanates from.

However, regulation theory does not explicitly deal with the concept of power, how it is attained and maintained and where it is located. Another perspective, although considered by some not to be a fully fledged theory (Raikes, Jensen and Ponte, 2000) does deal very effectively with the notion of power. This perspective falls under the rubric of global commodity chain analysis and the next section will be devoted to a discussion of its usefulness in understanding the restructuring of the global agro-food sector.

3.1. Global Commodity Chain Analysis - Origin, Definition and Organisation

Global Commodity Chain Analysis (GCC) "reformulates the basic conceptual categories needed to analyze new patterns of global organization and change" (Gereffi et al, 1994: 2). It was first introduced by Hopkins and Wallerstein (1986) who defined a commodity chain as a "network of labour and production processes whose end result is a finished commodity" (Gereffi et al, 1994: 2). The global commodity chain approach thus allows us to examine the path of a particular commodity from the primary site of production to where the finished product eventually ends up on the shelf. In doing so one is able to investigate and examine the different actors involved in every step or process along the commodity chain, their roles, the power they wield in determining and shaping the ultimate value of that commodity and the linkages between these different actors. These different processes along the commodity chain do not occur "automatically", but are shaped by the different social relations within which they occur.

Although GCC analysis was first introduced by Hopkins and Wallerstein, it was further developed and popularized by Gary Gereffi, who was mainly concerned with industrial commodity chains (Raikes et al, 2000). A commodity chain consists of what is referred to as a set of different processes (e.g. production, processing, packaging, distribution, marketing, etc.) which Gereffi refers to as "nodes" or "boxes" which are linked together in networks (Gereffi et al, 1994). Each node requires specific "inputs" for example raw materials, labour, transport and communication technologies and consumption in order to be effectively concluded (Gereffi et al, 1994). Gereffi's global commodity chain approach shows some similarities with Porter's value chain which was first introduced in Porter (1985). Value chain analysis looks at the value of each of these activities in improving the firm's competitive advantage. According to Porter's

theory, a firm's competitive advantage is derived from its success in performing these activities and managing the linkages between different activities, which might not all be performed by the same firm (Dagmar Recklies, 2001)[8].

Within the value chain, profit margins refer to the difference between the final price the consumer pays and the sum of the input costs incurred in producing and delivering the commodity or service. The structure of the value chain determines how the profit margin will be spread across all the actors involved in the production, processing, distribution, marketing and delivery of the final product and each actor will use its market position and negotiating power to secure a larger percentage of the profit margin (Dagmar Recklies, 2001: 2). GCC analysis and Porter's value chain analysis converge in showing "the benefits that firms derive in breaking the production process into discreet segments to help them look for innovative organisational and managerial practices to improve their productivity and profit (Gereffi et al, 1994: 6). This is where the international division of labour becomes relevant as large transnational corporations often move their production processes to export processing zones (EPZ's) in poor Third World countries where labor is cheap and labour legislation is non-existent[9]. However according to Porter's theory, cheap labor is a "lower order" competitive advantage and other factors such as "proprietary technology, product differentiation, brand reputation, customer relationships and constant industrial upgrading" are more significant in boosting a firm's international competitiveness (Gereffi et al, 1994: 6).

3.2. Dimensions and Governance Structures within Global Commodity Chains

According to Gereffi (1994: 7), commodity chains have three main dimensions:

- "An input-output structure which refers to "a set of products and services linked together in a sequence of value-adding economic activities
- A territoriality which refers to a spatial dispersion or concentration of enterprises in production and distribution networks and
- A governance structure which refers to authority and power relations"

A fourth dimension, the institutional framework, was introduced by Gereffi in later work. The institutional framework "delineates the conditions under which key or "lead" actors incorporate subordinate agents through their control of market access and information" (Gereffi, 1999 in Raikes et al, 2000: 393). Less powerful actors in the value chain are usually used by "lead"

[8] www.themanager.org
[9] See section 1.3 for a discussion of the international division of labour

actors to perform some of the lower order competitive functions referred to above (Raikes et al, 2000)

Two types of governance structures can be identified within global commodity chains; i.e. producer-driven commodity chains and buyer-driven commodity chains. Both are concerned with barriers to entry into the commodity chain. Within producer-driven commodity chains, large, transnational corporations are the lead agents and play the central role in coordinating production networks. Producer-driven commodity chains occur mostly in capital and technology intensive commodities such as automobiles, aircraft, semiconductors and electrical machinery (Gereffi, 1994: 97). Within buyer-driven commodity chains on the other hand, the main agents are "large retailers, brand-named merchandisers and trading companies and they play the central role in setting up decentralized production networks in a variety of exporting countries, typically located in the Third World" (Gereffi, 1994: 97).

Buyer-driven commodity chains are characteristic of labour-intensive, consumer-goods industries such as garments, footwear, toys, consumer electronics, housewares, and fresh fruit and vegetables. Gereffi argues that the main distinction between producer–driven and buyer-driven commodity chains relates to the debate around different production systems, i.e. mass production versus flexible specialization. Mass production is more common within producer-driven commodity chains while flexible specialization is characteristic of buyer-driven commodity chains as it relates to the differentiation in consumer demand, more discerning consumers and changing lifestyles amongst consumers, especially those in the North (Gereffi, 1994: 99). Consumption patterns and consumer demand are key in understanding the basic dynamics of buyer-driven commodity chains, how they are organized, shaped and restructured. Gereffi et al for example argue that consumer demand for fresh fruit all year round has resulted in the creation of "commodity chains involving counter-seasonal production in the Southern hemisphere" (1994: 12). This is made possible by constant revolution in packaging, transport and communication technologies within the value chain.

Building on Gereffi's notion of governance in global commodity chains (GCC), Ponte and Gibbon define governance in global commodity chains as "the process of organizing activities with the purpose of achieving a certain functional division of labour along the chain – resulting in specific allocations of resources and distributions of gains" (2005: 3). Linking the notion of quality and quality standards in GCCs to the issue of governance, the authors argue that "lead

actors" (mostly retailers and supermarkets) in buyer-driven commodity chains are able to shape the division of labour and define the rules and conditions of participation and barriers to entry within GCC's, because they are in a position to define "quality" and set "quality standards" (Ponte and Gibbon, 2005: 3). Governance in GCCs is now defined as "the process of exercising control through the specification of what product needs to be delivered, in what quantity and when, how it should be produced and at what price" (Ponte and Gibbon, 2005: 5).

This power is facilitated through changing consumer demands and consumption patterns away from standardized, mass produced goods to more diversified products. This fundamentally alters production methods and places particular pressures on producers as far as the management of quality is concerned. However, the authors also assert that this is not a "natural" process and as much as consumers play an active role in shaping quality demands, lead actors also play a role in manipulating consumer demands and preferences. According to Ponte and Gibbon, lead firms "steer spontaneous and gradual processes of qualification and re-qualification of products to their advantage by prompting consumers to question their preferences and indirectly their identities" (2005:9). This point is echoed by Dolan and Humphreys who argue that "supermarkets both anticipate and shape customer needs and make decisions about how these needs should be met (2000: 156). Strategies used to achieve this include advertising, packaging, shelf positioning, presentation of products and focus groups (Ponte and Gibbon, 2005:10).

3.3. The Role of the State in Global Commodity Chains

Proponents of GCC analysis argue that state policies play an important role in shaping the structure of global commodity chains. The different types of governance structures within global commodity chains, i.e. buyer-driven vs. producer-driven chains, respond to different forms of state policies (Gereffi, 1994). It is argued that third world states have historically pursued one of two sets of development policies, i.e. import substitution or an export-oriented development policy. Import substitution refers to a situation where national industry is geared towards supplying the domestic market whereas an export-oriented development strategy focuses on growing the economy by gearing industrial production towards supplying international markets. The former depends heavily on capital and technology intensive industries, whereas the latter depends on labour-intensive industries. Capital intensive industries are those in which large resources are invested in machinery and technology whereas labour intensive industries refer to those sectors which generate high levels of employment (Labour Market Commission, 1996).

Gereffi argues that producer-driven commodity chains respond to import substitution development policies as both favor capital and technology intensive industries, whereas export substitution development policies operate more effectively through buyer-driven commodity chains where production takes place in private, labour intensive industries (1994: 100). Using the example of the East-Asian Tigers (Taiwan, Singapore, Hong Kong and South Korea), he argues that their export-oriented development strategy and buyer-driven commodity chains developed at the same time in the 1970's, which "suggests a close relationship between the success of the export-oriented development strategy and the development of new forms of organizational integration in buyer-driven industrial networks" (Gereffi, 1994: 100). Within each of these development policy strategies, the state assumes a very specific role. In an export-oriented development strategy the state assumes the role of facilitator, providing the most favorable conditions for example infrastructural support like transport and communication networks, for exports to thrive. In an import-substitution development strategy on the other hand, the state assumes a more interventionist role and intervenes directly in the production process through industrial policy and direct support measures like subsidies and tariffs (Gereffi, 1994).

In later work Gereffi (2005) uses the concept of industrial "upgrading' to argue that developing countries can improve their positions in global value chains thereby stimulating further development of local industries. Industrial upgrading is defined as "the process by which economic actors; i.e. nations, firms and workers move from low-value to relatively high-value activities in global value chains" (Gereffi, 2003: 2). Kaplinsky (2000) argues that although the last few years have seen an increase in international trade, this has been a largely unequal process. Although many countries, particularly third world countries, have increased their participation in international trade, at the same time their relative income shares have fallen. The trade/GDP ratio for countries in sub-Saharan Africa for example increased from 51 to 56.1 % between 1985 and 1995, but its share of global output fell markedly during the same period (Kaplinsky, 2000: 119). This is in part is due to the fact that certain countries have been able to secure a greater share of the gains of international trade due to their position in global commodity chains. Kaplinsky identifies four ways in which economic actors can secure higher income returns and become more competitive:

- "Increasing efficiency of internal operations
- Inter-firm linkages can be enhanced to a greater degree than that achieved by competitors
- Introducing new products or improving old products faster than rivals
- Changing the mix of activities conducted within the firm or moving the locus of activities

to different links in the chain, for example from manufacturing to design" (Kaplinsky, 2000: 140).

According to Kaplinsky the last of these strategies will yield the most significant results in terms of increasing competitiveness. This corresponds with Gereffi's (2003) notion of industrial upgrading. Gereffi argues that newly industrialized countries and advanced developing countries have been able to secure higher economic returns by moving beyond low-value activities in the commodity chain such as production and making inroads into higher value, knowledge-intensive activities such as design, innovation and product development for example. Using the fresh fruit and vegetable export commodity chain between African countries such as Kenya and Zimbabwe and consumers in the United Kingdom as an example, he argues that African countries can improve their competitive position within this commodity chain by moving into high-value-added items such pre-packaged and ready-prepared vegetables and salads. Dolan and Humphreys (2000) have shown how these kinds of activities can significantly increase profit margins. For example the price of class 1 carrots in a particular UK supermarket was 39.4p per kilo, but when the same carrots were put into bags, the price doubled.

Moreover, "the price of peeled and sliced carrots was seven times as high as the loose product (£2.83p per kilo) while a new product variety, the 'mini-crunch' carrot designed as a snack, retailed for £6.00 per kilo" (Dolan and Humphreys, 2000: 155). However this kind of upgrading requires investment in upgraded technology such as first class post-harvest facilities like cold storage and packaging equipment. It also places new demands on labour and requires an investment in building innovative capacity and skills amongst the work force. Upgrading places new demands on developing country governments. If industries are to improve their position in global commodity chains by moving into higher-value activities they would require substantial support from governments in the form of local infrastructure development such as improved and reliable transport networks, specialized training programmes and investment in the improvement of research and development capacity (Gereffi, 2003: 10).

3.4. The Notion of Power in GCC Analysis

As was said before, the GCC analysis' consideration of the notion of power or control makes it a particularly useful theoretical perspective in trying to understand global economic changes. Global commodity chains consist of a number of different processes/activities or what Gereffi referred to as "nodes". It is argued that not all these activities or processes carry the same weight

or value within the chain. According to the original proponents of GCC analysis, Hopkins and Wallerstein, some activities or processes within the commodity chain are considered "core" activities and others are more "peripheral" activities and are distinguished from one another based on advanced technology and market power embodied in each activity or process (Hopkins and Wallerstein, 1985 in Raikes et al, 2000).

An actor's power within the global commodity chain is a function of its control over core activities or processes and the barriers to entry into these activities or processes. So for example Gereffi argues that buyer-driven commodity chains which are heavily influenced by consumer demand and lifestyle patterns, are very "design and marketing intensive and entry-barriers are high at the level of brand-named companies and retailers that invest considerable sums in product development, advertising and computerized store networks to create and sell these products" (1994: 104). So "control over buyer-driven commodity chains is exercised at the point of consumption" (Gereffi, 1994: 104). Retailers and supermarkets who invest considerable time and effort in satisfying the market for high quality, consistently supplied products have the lion's share of control at this end of the commodity chain. The notion of power within the global commodity chain thus refers to an actor/s' ability to secure a higher percentage of the profit margin.

Raikes et al however argue that as useful as the notion of power within GCC analysis is, it is not without limitations. The biggest limitation is the fact that GCC analysis does not allow one to get an understanding of the different "degrees or sorts" of power along the commodity chain, although it does show that different degrees of power exist with its notion of core and peripheral activities and the firms responsible for performing these different activities (Raikes et al, 2000: 402).

As was said before, within buyer-driven commodity chains control and power are exercised at the point of consumption. Those who are at this end of the commodity chain, i.e. retailers and supermarkets, have considerable power to influence those who are involved in activities which are considered to be "peripheral" to the commodity chain. It is usually those who are further down the commodity chain, away from the concentration of power, who have to cater to the demands and whims of those at the other end of the commodity chain. They are also the ones who carry the bulk of the risks and costs associated with meeting these demands. Within the agro-food sector, it is usually producers who get the short end of the stick. Dolan (2004) in her

analysis of the fresh vegetable commodity chain linking Kenyan producers and consumers of their produce in the United Kingdom, discusses the unequal power relations between Kenyan producers and big supermarkets in the United Kingdom. Using the Kenyan fresh vegetable commodity chain as an example of a buyer-driven commodity chain, she argues that the unequal power relations between Kenyan producers and supermarkets in the UK have a profound effect on the production methods of Kenyan farmers as well as the employment strategies they adopt (Dolan, 2004). Taking Gereffi's global commodity chain analysis a step further, she looks at the ways in which pressures within the commodity chain play out at the level of production, how it impacts on the production process and the risks and opportunities for workers.

Horticultural exports have seen unprecedented growth in Kenya and have even surpassed traditional exports such as coffee as the largest source of foreign exchange, contributing US$270 million to Kenya's overall export economy (EPC et al in Dolan, 2004: 2). Exports of fresh vegetables increased by 53% in volume and by over 206% in terms of value between 1993 and 1999 (Dolan, 2004: 2). Exports to the United Kingdom in particular have grown substantially, from 33% in 1990 to over 71% by 1999 (Humphreys in Dolan, 2004). This, according to Dolan, has increased Kenya's export dependence on the United Kingdom market and has changed the structure of the commodity chain from a "loose network of arms-length relationships between UK importers and Kenyan exporters to a highly coordinated 'buyer-driven' value chain dominated by a handful of UK supermarkets" (Dolan and Humphreys in Dolan, 2004). This change according to Dolan can be attributed to four main factors:

- "Unprecedented consolidation amongst UK retail chains, in size and market share, with the combined market share of grocery sales among the nine major UK supermarkets amounting to 60% in 2001
- The development of own label products in supermarkets which became key to their strategy to enhance margins and maximize market penetration coupled with the growth in product differentiation and greater emphasis on characteristics like quality and innovation rather than price
- Supermarkets' pursuit of greater organizational flexibility and their restructuring of the division of labour between agents in the chain by for example outsourcing functions such as quality control, monitoring, distribution and processing to importers and exporters upstream and concentrating on core functions like marketing, branding and product design.
- The proliferation of mandatory and voluntary standards faced by supermarkets forcing

them to monitor their suppliers more closely and to exercise greater control over costs, quality and efficiency" (Dolan, 2004: 3).

The demands from supermarkets and the pressure they exert on producers have profound effects on the production process and the workforce. Some of these have already been alluded to, but Dolan shows how these changes in the production process are directly linked to companies' engagement with the value chain.

3.5. Farm-level Response to Pressures in the Commodity Chain

3.5.1. Restructuring of Production and Labour

Flexibility - Dolan argues that the risks and costs associated value chain requirements such as "quality, consistency, reliability of supply, efficiency, conformance with external standards and value added processing" are transmitted through the value chain and usually come to rest on producers. Producers try to offset these risks and costs by adopting more "flexible" production methods and by cutting the wage bill. These translate into new patterns of employment such as the increase in informal work (casual, contract and seasonal work) that allow producers to lower wages and also to avoid costs associated with benefits like pensions, medical aid, sick and annual leave; flexible remuneration (piece-rate payment) and multitasking where for example workers are shifted between different tasks such as "packing, grading, trimming and bar-coding, tasks which require different skills sets, but command the same level of remuneration" (Dolan, 2004: 6).

The increased use of flexible labour is a common strategy adopted by producers in a bid to offset some of the pressures exerted through the commodity chain. Research conducted by Barrientos et al on the global apple commodity chain linking producers in the Western Cape in South Africa and supermarkets in the United Kingdom reported a similar trend in increased flexibilisation. Conducting research in two apple producing area, Ceres and Grabouw, the research found that factors such as increasing quality standards, demands for new cultivars, increased competition from other apple producing countries such as Chile coupled with deregulation and the introduction of new labour legislation have all played a role in shaping the production and employment strategies of farmers in these two areas. The researchers for example found a clear move away from permanent, on-farm labour to an increasing use of flexible labour such as seasonal and contract labour. All but three of the 18 producers interviewed, reported that they were downsizing their permanent labour-force, whilst all of them use a mixture of on and off-

farm seasonal labour (Barrientos et al,.2002 :8).

This trend has also been confirmed by other studies. A survey of 77 wine, vegetable and fruit farms conducted by the Programme for Land and Agrarian Studies (PLAAS) for the Centre for Rural Legal Studies in 2001, found that close to 60% of the farms surveyed had reduced their permanent labour force in the last 3 years and on 47% of the farms management had plans to reduce their permanent labour force in the future (Du Toit and Ally, 2001). A similar trend can be observed in South Africa's wine industry and, according to Ewert and du Toit (2003), increasingly the labour force arrangements on most farms seem to consist of a small core of permanent on-farm workers who are "skilled" and relatively "privileged" in terms of benefits, supported by a larger, secondary labour force consisting of seasonal, mostly women workers whose employment is insecure and offer few, if any benefits.

Feminization of labour - One of the main characteristics which commodity chains in horticulture have in common with other buyer-driven commodity chains, e.g. clothing and textiles, toys, etc. is the high concentration of female workers, where women in the horticulture sector in Kenya account for 66% of sample pack house labour and 60% of farm workers, compared to just 12% in wage employment in Kenya (Dolan, 2004: 4). According to Dolan the preference for female labour in horticulture reflects not only "gendered patterns in African farming systems, but feminisation in both pack house and farm employment is grounded in a number of stylized assumptions that equate production imperatives of quality, consistency and speed with ostensibly 'feminine' traits of dexterity and conscientiousness" (2004: 4). These stereotypes also serve producers' need to reduce labour costs due to pressures in the commodity chain very well as women are often paid less than men. Women also make up the bulk of the workforce in flexible types of employment.

The above-mentioned flexible production methods are a response to the following, very specific commodity chain pressures:

- "Price competition at retail level which forces the whole chain to cut costs;
- Supermarkets' adoption of "just-in-time" production methods aimed at reducing inventory control has forced producers/exporters to offset the risk of uncertainties in supply and demand by employing a flexible labor force which can be drawn in and out of production depending on the level of demand;
- Demands for product development and innovation are borne by producers/exporters;

- The introduction of category management by supermarkets, which is designed to increase operating margins through more efficient product development, logistics and sales" (Dolan, 2004: 7).

Category management entails the grouping of fresh products into specific categories by supermarkets, e.g. citrus, legumes, salads, etc. and often specific categories of fresh fruit and vegetables are sourced from specific suppliers (Dolan, 2004).

Skills Development and Training - Ironically, even though one would assume that the new demands from supermarkets in terms of quality, efficiency, innovation and new product development would lead to an upgrading in the skills base of the workforce, Dolan's research of the fresh vegetable commodity chain in Kenya has shown that this is not necessarily the case. She found that although more sophisticated packaging processes in the pack house division had resulted in an increase in the demand for labour, this was not accompanied by an increase in the levels of skills required. In fact most of the workers who participated in the research were performing unskilled work and the exporting firms confirmed that only about 10 to 25% of their workforce was engaged in skilled labour (Dolan, 2004: 8). Moreover, most of the skilled work is performed by men and women make up the majority of those employed in unskilled work. This according to Dolan is largely a consequence of women's position in the commodity chain. As was said before, women are largely concentrated in flexible, temporary forms of employment and these are exactly the kinds of jobs neglected by employers in terms of investment in skills development and training.

Working Conditions – Pressures from supermarkets also effect the hours and intensity of work performed by workers. For example the demand for quality, fresh products and the pressure from supermarkets for suppliers to respond swiftly and consistently to changing consumer demands often require pack house workers to work long hours in order to complete an order of highly perishable products so that it can be flown to the United Kingdom in time (Dolan, 2004). These long working hours in often unhealthy, cold working conditions also impact very negatively on workers' health. Often workers in the horticulture sector have very few options for challenging these kinds of unfair working conditions since most of them are flexible workers who are not covered by labour legislation, don't enjoy union representation and are not covered by the codes of conduct which supermarkets often impose on their suppliers as many of these codes do not make provision for flexible workers (Dolan, 2004).

Dolan's case study of the fresh vegetable commodity chain between Kenyan exporters and consumers in the United Kingdom is an excellent example of how unequal power relations between different actors in the global commodity chain play themselves out. It shows how risks and costs are transmitted down the commodity chain and it is often workers who bear the cost of these risks. However, even amongst workers these risks and costs and not equally spread as it is often female, flexible workers who bear the lion's share of these costs. Moreover, Dolan's analysis also shows how commodity chains can not be studied in isolation of broader economic, political and social conditions, but are "embedded" in the broader economic and political environment (Dolan, 2004). This case study has shown how broader regulatory pressures (for example new regulatory pressures for safe, healthy, "quality" products) have a fundamental effect on the structure of the commodity chain; they often shape the power relationships between different actors in the chain and have a profound effect on the allocation of risks and benefits.

The theoretical perspectives discussed thus far have been useful in allowing us to gain a better understanding of the restructuring of global agriculture and how this shapes the power relations between different actors. Moreover, they provide an explanation for where the pressure for "quality" production comes from. However, global commodity chain analysis does not give one a sense of the contested nature of these unequal power relations or how the quest for quality production impacts on practices at farm level. Those further down the commodity chain, notably producers and exporters, have to find ways of responding to the pressures exerted upon them. In order to survive, they have to find innovative ways of remaining competitive in a cut-throat global market. Skills development and training has been identified as one element of a strategy to become more innovative and internationally competitive. The next section will be devoted to a discussion of two theoretical perspectives which helps to make sense of the response to the demand for quality production at farm level, the first is actor-network theory as it relates to innovation and producers' attainment of international competitiveness and the ergonomics perspective as it relates to the question of skills development and training for vineyard workers.

4. Actor-Network Theory

Actor-Network theory has its origins in the sociology of science and technology and is now being used by sociologists interested in the question of agricultural restructuring to study how producers respond to the new challenges brought on by globalization and the strategies they employ to answer the demand for innovation and international competitiveness. The most fundamental principle of actor-network theory is that "entities take their form and acquire their attributes as a result of their

relations with other entities" (Law in Coughenour, 2003: 2). Networks are defined as a "regular set of contacts or similar connections among individuals or groups (Granovetter and Swedberg, 1992: 9). Network sociology is concerned with the linkages or connections between different actors and how action is generated through these linkages and connections between different actors. Networks take various forms, from more personal, social networks, familial/kinship networks to institutional and technological systems (Murdock, 1995). Networks are also not confined to a particular space or geographical location, but can spread across different spaces; networks are capable of "action at a distance" (Latour in Busch, 1998: 2).

Each actor has a specific role or function to perform within the network and during the course of this interaction, actors acquire specific identities. Network theorists further argue that networks are not autonomous, but are embedded within specific social, personal, political and economic relations. Exchanges which take place between different actors within a particular network are governed by trust and cooperation (Rosenbaum, 1990). Jarosz in his discussion of agro-food networks argues that the social relations of trust and cooperation among suppliers, producers, workers, brokers, consumers which make up regional food networks play a central role in ensuring the viability and vibrancy of agro-food networks (2000: 279). A central theme in network theory, especially in its application to innovation in agriculture is the role of the network in generating information and knowledge necessary for innovative action to take place. In fact Chiffoleau defines social networks as " social spaces wherein knowledge is produced for innovation" (2005: 1194). Moreover, "in the process of creating an innovation, the innovators construct both a new technical frame-knowledge, methods, routines for the innovation and an actor-network embracing the new technical frame" (Coughenour, 2003: 2). A number of case studies point to the role of networks in the generation of new knowledge and innovative strategies to deal with the challenges inherent to agro-food commodity chains in the era of globalization.

Busch in his study of soybean production in Brazil argues that a socio-technical network consisting of researchers, scientists, agricultural producers, processors, retailers and consumers played an important role in the creation and expansion of the soybean industry in Brazil (1998). Research, both public and private, played a particularly crucial role in providing actors with the necessary knowledge and information about which conditions were more favorable to the successful cultivation of soybeans. Whereas public research focused on biological innovations, private research was devoted to the supply of chemical and mechanical innovations (Busch, 1998: 6). As a result, soybean production increased dramatically between 1970 and 1980, the number of soybean

farms increased by 74% while the area planted to soybeans increased by 481%, from 1.9 million ha to 11.3 million ha (Busch, 1998: 8).

However, this expansion in soybean production can also be attributed to state policies which were aimed at stimulating agricultural production. These policies focused on the encouragement of export growth through the provision of agricultural subsidies, tax reform and exchange rate policies which decreased the price of raw material for processing (Busch, 1998:7). Other support measures included the extension of rural credit through the National Rural Credit System and a minimum price policy[10]. Another important actor in the soybean industry network in Brazil were the co-operatives who "assisted their members in the acquisition of inputs, investing in research, providing technical assistance, storing, commercializing and aiding in the processing of soybeans as well as provide their members with daily information on international prices for soybeans and their derivatives (Busch,1998: 9). In this sense then the co-operative played an important role in the diffusion of new knowledge and information to soybean producers.

Chiffoleau (2005) uses actor-network theory to analyse the application of environmentally-friendly viticulture as an innovative strategy adopted by wine farmers of a small wine co-operative in the Languedoc-Roussillon wine region in the South of France. The Languedoc-Roussillon region, long a producer of low quality table wine has been undergoing a "quality revolution" for the last decade or so as farmers are trying to respond to the demand for higher quality, premium wines. This "quality revolution" has seen the introduction of new methods of production like new methods of pest control and other vineyard practices for example pruning, trellising and "terroir" selection, matching the right cultivar with the right soil and climatic conditions (Chiffoleau, 2005). This understandably is placing new demands on farmers in terms of organizational capabilities and learning. Chiffoleau identifies two types of social networks which members of this co-operative form part of in their quest to employ innovative strategies in order to respond to the new challenges brought about by the quality revolution. These social networks, according to Chiffoleau, form the "meeting point between innovation and learning approaches" (2005: 1195). The two types of networks identified are the "daily exchanges or professional dialogue relations network and the advice relations network (Chiffoleau, 2005).

These two types of networks each entail very specific types and levels of contacts, linkages,

[10] ibid

exchanges and relations between actors in each network. The first entails relations of technical dialogue, general dialogue, shared work practices and the exchange of equipment between network members whereas the advice type network consist of the exchange of advice concerning practices such as pest control, grape quality assessment, qualitative practices, variety planting and workers recruitment between network members (Chiffoleau, 2005: 1196). Chiffoleau in her study found that whereas relations between members of the daily exchange type network are more loose and generic, those between actors in the advice relationship are more specific, structured specifically around the attainment of advice concerning certain technical issues. Moreover she found very little overlap between the different types of networks, meaning that when members of this particular co-operative needed technical advice, they would not necessarily approach those that they engaged with on a daily basis (Chiffoleau, 2005: 1197).

Chiffoleau's very detailed study is a good example of the workings and structure of an actor-network and the role that it plays in advancing learning and knowledge production and diffusion necessary for innovation.

5. The Ergonomics Perspective on Skills Development in the Wine Industry

Chapter three of the thesis discusses in detail the pervasiveness of the quest for quality in the South African wine industry. Many industry experts agree that in order for the industry to become internationally competitive, it needs to improve the quality of its wine in order to move into higher price-points and compete in the premium segment of the market. Using what they refer to as an "ergonomics" perspective, Chiffoleau et al (2002) analyse the implications for skills development and training, which the pursuit for quality places on the South African wine industry. In order to produce quality grapes producers need to adjust vineyard practices accordingly. According to the authors three particular practices are crucial for quality wine production, i.e. the correct matching of cultivar and terroir, vigor control and environment-friendly production (Chiffoleau et al, 2002: 4). This according to Chiffoleau et al places specific demands on the skills of vineyard workers.

What is needed in the quality era is a vineyard worker who possesses the necessary skills that go beyond the mere mechanical execution of vineyard practices, but is able to exercise "discretion". He or she should be able to assess and interpret the specific needs of each individual vine and decide on the correct course of action, specifically with regards to practices such as pruning, suckering, canopy control, irrigation and pest control. For example, according to Chiffoleau et al

"workers are no longer instructed to prune vines according to a standard procedure leaving a number of eyes. Instead, they have to diagnose the state of the vine in its environment and to act in order to bring the biological system to a foreseen state of balance" (2002: 5). This view is echoed by Mr. Alberts, an independent skills trainer and facilitator in the industry, who argues that vineyard workers have to be skilled in the "physiology" of the vine[11]. Chiffoleau et al distinguish between two types of skills namely generic and specific skills. Specific skills are skills which are very specific to a particular task or profession whereas generic skills are "related to the ability to summon cognitive tools that enable conceptualization, treating a particular situation as an example of a more general problem (Pastré in Chiffoleau et al, 2002: 5).

In order for vineyard workers to acquire these skills, labour relations on wine farms need to be transformed. Farm owners and managers have to create the appropriate social conditions for this type of learning and skills acquisition to occur. Chiffoleau et al highlight specific social conditions needed for effective skills development and training to occur in the South African wine industry, i.e. equity and external mobility in the labour market. Employers have to recognise their employees' interests and needs and have to act to fulfill these needs, the need for skills being one. In order for effective skills development to occur, employees should receive the necessary certification and should be in a position to move from one workplace to another should they wish to broaden their skills and experience (Chiffoleau et al; 2002: 7).

5. Conclusion

The above theoretical perspectives each bring a unique and useful contribution to the study of agricultural restructuring. Regulation theory offers a macro perspective of the forces at work with regards to the changes happening in the global agricultural environment. It enables us to study different institutions and the role that they play in setting the rules and terms under which trade in agricultural produce occur. Global commodity chain analysis allows us a more detailed examination of the stages between the site of production and the consumer and exactly how and where power is located, generated and maintained. It facilitates a better understanding of how pressures, risks and benefits are transmitted through the commodity chain. The last perspective discussed in this chapter analyses the demands that the quest for quality places on workers' skills and the social conditions needed for the effective acquisition of the skills needed for quality production. One of the most important lesson learned from the theoretical perspectives and the

[11] Interview with Mr. Gerrie Alberts

specific case studies outlined above though, is that agricultural restructuring is a contradictory and uneven process and some benefit from this process, while others are at a disadvantage. Another significant lesson is that the whole concept of "quality" should not be accepted uncritically. The concept of "quality" is not as neutral and value-free as it is often presented. As much as the concept of "quality", as it is used in the agricultural context, conjures up images of nature and wholesome goodness, it is also a political construct, embedded in the struggle for power, dominance and bottom line in the global commodity chain.

Chapter 3: The Challenges Facing the South African Wine Industry: Producing Better Quality Wine

1. Introduction

After successful re-entry into international markets by the mid-1990's, one of the next major challenges facing the South African wine industry was to move up the quality ladder i.e. into higher "price points". An investigation into the competitiveness of the South African wine industry conducted by the South African Wine and Brandy Company[12] in 2005 identified the production of high quality products as one of the crucial elements necessary to enhance the competitiveness of the industry. Other important elements highlighted by this enquiry include continuous innovation, investment in human resources, unique products and high quality services. Competitiveness was defined in this report as "(Wine) industries and firms are competitive when they are able to trade products at qualities and prices as good or better than their competitors; and they are able to attract sufficient sources of capital, land, labour, technology and management from other competing economic activities" (SAWB, 2005:3). Other industry experts agree that in order for the industry to become internationally competitive it needs to improve quality and build strong brands, particularly in the premium and ultra-premium segments of the market.

This chapter has three main sections. It will firstly provide an overview of the South African wine industry, its size and structure, history and how this history relates to the current challenges facing the industry. It will then take a brief look at the major issues on the international wine market and the implications these have for the South African wine industry. Finally, it will discuss the efforts that the industry is making to transform itself in order to successfully respond to these challenges.

2. Overview of the Industry

2.1. Size and Structure of the South African Wine Industry

South Africa has a long wine-making tradition which dates back more than 300 years. South Africa is the 10th largest wine producer in the world in terms of litres of wine produced, ranked behind Portugal and ahead of Chile (Platter, 2005: 22). South Africa, in 2001, contributed 647

[12] In 2006 in a bid to become more "representative" the South African Wine and Brandy Company was restructured and renamed the South African Wine Industry Council (SAWIC) under the chairmanship of Prof. Kader Asmal, former education minister of South Africa.

000 000 litres to total world wine production. This represents 2.5% of total world wine production. This puts South Africa behind Australia which contributes 3% to world wine production (see table1) (Proust and Knox, 2002).

In 2004, the total area under vines (excluding sultanas) was 100 000 hectares, showing an increase of 19% from 84 000 in 1994 (SAWIS, 2005). The percentage of hectares planted under red grapes has increased considerably. In 1997 white varieties constituted 78.1% of total area planted, compared to 21.9% red. In 2004, the percentage of red grapes had increased to 46%, compared to 54% white grapes (SAWIS, 2005) (see figure 2). The most important grape varieties in terms of vineyard plantings in 2004 were Chenin Blanc, Chardonnay, Sauvignon Blanc, Colombar and Viognier for the white varieties and Shiraz, Cabernet Sauvignon, Merlot, Ruby Cabernet and Cinsaut Noir for the red varieties. Of the wine produced in 2004, 696.788 million litres were table wine, 85.357 million litres were rebate wine, 145.775 million litres distilling wine and 87.777 million litres non-alcoholic [13](SAWIS, 2005).

An important issue which needs to be taken into consideration is the fact that "when replanting results in more "noble cultivar" wines, it increases quality. However, replanting replaces old vines with new vines, which could result in lower quality (an invariably does in the first 10 – 15 years)[14]". This could be one factor which accounts for the fact that South Africa is struggling to move into the premium and above segment of the market.

[13] "Natural wine is non-fortified and non-sparkling wine, including perlé wine which is carbonated to the extent that the pressure in the container in which it is sold is between 75 and 300 kPA. It also includes any grape juice or must and grape juice or must concentrate used in the sweetening of such natural wine. Rebate wine is wine specially prepared for double distillation in a pot still and then, as distillate, maturation for a period of at least three years in oak casks with a capacity of not more than 340 litres. Distilling wine is wine specially prepared for distillation to spirits intended for use in brandy or other spirits, for fortification of wine or for industrial purposes. Non –alcoholic refers to unfermented, undiluted or concentrated juice from grapes destined for use in non-alcoholic products such as fruit juices" (SAWIS, 2005: 2).

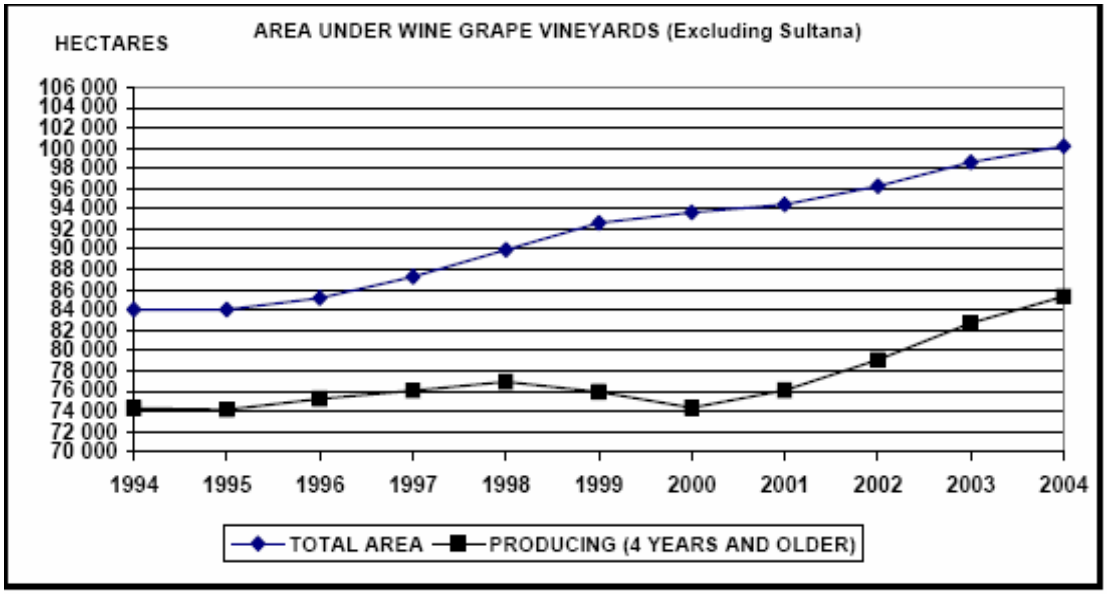
[14] Personal communication

Table 1: South Africa's Position Relative to Other Wine-Producing Countries – Wine Production

COUNTRY	WINE PRODUCTION	% OF TOTAL WORLD PRODUCTION	RANK
Spain	4 169 200 000	15.1	3
France	5 754 100 000	20.9	1
Italy	5 162 000 000	18.7	2
USA	2 330 000 000	8.4	4
Argentina	1 253 800 000	4.5	5
Chile	641 900 000	2.3	10
Australia	806 400 000	2.9	7
South Africa	694 900 000	2.5	8

Source: Sawis, 2003

Figure 1: Total Area Under Vine – 1994-2004



Source: Sawis, 2005

Figure 2: Wine Grape Varieties as a % of Total Area under Vine

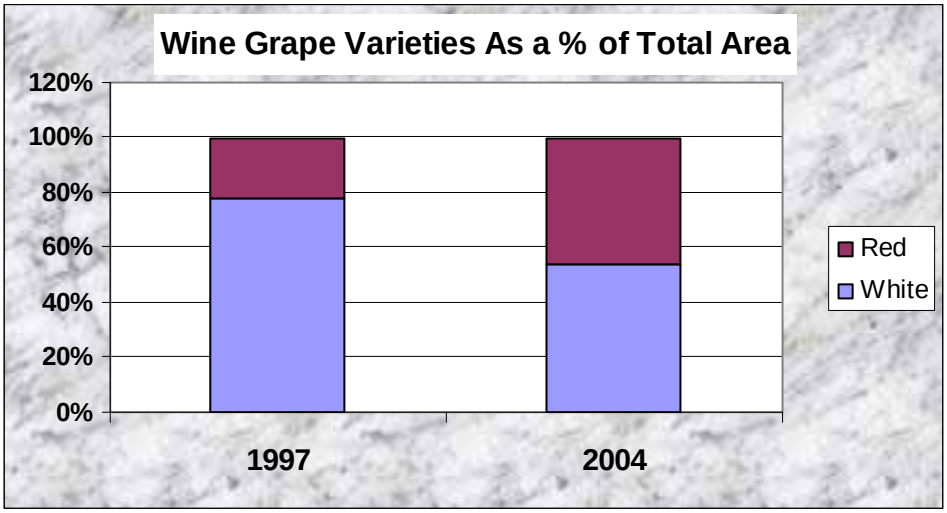


Table 2: Wine Grape Vineyards Planted for the period 1December 2003 – 30 November 2004[15]

Top 5 White Grape Varieties	Total (ha)	% of Total White	Top 5 Red Grape Varieties	Total (ha)	% of Total Red
Chenin Blanc	693	27	Shiraz	571	32.2
Chardonnay	631	24.5	Cabernet Sauvignon	496	28
Sauvignon Blanc	508	19.7	Merlot	154	8.7
Colombar	496	19.3	Ruby Cabernet	139	7.8
Viognier	118	4.6	Cinsaut	123	6.9
Total Hectares Planted	2575		Total Hectares Planted	1772	

Source: Sawis, 2003

[15] SAWIS (2005) South African Wine Industry Statistics

The wine industry has different stakeholders. According to official statistics, there were 4435 primary wine producers in 2003 and 505 wine cellars crushing grapes with the number of producers increasing by 89 and the number of cellars increasing by 77 from the year before (Platter, 2005:22). Of these 66 are co-operative cellars, which in partnership with farmers process the grapes grown by the farmer members into wine (SAWIS, 2003). There are 93 "officially recognized" estates, 330 private wine cellars and 16 producing wholesalers who buy both grapes and wine and also own farms on which they grow grapes for wine production under their own label[16] . The co-operative sector has traditionally been the most important division of the South African wine industry. The co-operative sector accounted for 79.18% of South Africa's total wine crop in 2005 (Sawis, 2006).

The South African wine lands are situated in the Western Cape, lower Orange River area of the Northern Cape and the Free State. The Western Cape, which has 95% of South Africa's vineyards, is divided into a number of districts and regions such as the Coastal Region, the Breede River Region, the district of the Overberg, the Olifants River Region and the Klein Karoo region. The Coastal Region includes the Stellenbosch district, Paarl, Constantia, Durbanville and the Swartland. The Overberg district includes viticulture areas such as Elgin and Walker Bay. The Breede River Region is made up of Worcester, Robertson and Swellendam. The Olifantsriver region has mainly big co-operatives such as the Vredendal Co-operative and the Klein Karoo region includes the towns of Montague, Ladismith and Calitzdorp. Of the wine regions, Worcester accounts for 18.83% , Paarl for 18.15%, Stellenbosch for 17.34%, , Malmesbury for 15.25%, Robertson for 12.99%, Olifants River for 9.73%, Orange River for 4.75% and the Little Karoo for 2.97% of the total number of hectares under vines in 2004 (see table 3)

[16] (Platter, ibid)

Table 3: Geographic Distribution of South African Wine Grape Vineyards per Wine Region in 2004

Wine regions	Area hectares	% of total hectares
Worcester	18 871	18.83
Paarl	18 185	18.15
Stellenbosch	17 376	17.34
Malmesbury	15 277	15.25
Robertson	13 014	12.99
Olifants River	9 746	9.73
Orange River	4 761	4.75
Little Karoo	2 976	2.97
Total	100 207	100.00

Source: Sawis, 2005

The wine industry directly and indirectly provides employment to 257 000 people, including farm workers, those involved in packaging, retailing and wine tourism[17]. Approximately 59 000 people are employed in wine tourism. Total turnover of the South African beverage industry (wine, brandy and other alcoholic-based beverages) amount to R10.7 billion a year, with R3.2 billion a year derived from exports. According to a study commissioned by the South African Wine Industry Information and Systems (Sawis) in 2004, the South African wine industry contributes approximately R16.3 billion to South Africa's gross domestic product (GDP) and approximately R11.4 billion of this goes towards the Western Cape's economy (Morris, 2004). Wine tourism activities generated about R4.2 billion. The study also reports that the wine industry contributes 70% to the Western Cape's GDP and accounts for 63% of employment in the province.

The South African liquor market is dominated by four large companies. The KWV group was established in 1918 and represented the interests of its 5000 wine grower members and was responsible for managing different aspects of the wine industry, such as sales, as well as regulation of the industry. The KWV became a private company in 1997 and in 1999 had a turnover of R826.4 million. The other major stakeholders are Distell, South African Breweries and the Rembrandt conglomerate (Greenberg, 2003). Distell was formed out of a merger

[17] www.wosa.co.za

between Stellenbosch Farmers' Winery and Distillers Corporation towards the end of 2000. Since the merger, Distell has steadily increased its dominance in the South African market. It is currently the second biggest liquor company in the South Africa market and the biggest in the wine market. Distell accounts for more than 75% of all brandy sales and 60% of the total production of premium wine (Du Toit, 2002).

2.2. Exports

South Africa's reintegration into the world economy, following the democratic transition in 1994, has presented both new opportunities as well as new challenges for the South African wine industry. On the one hand, South Africa now has access to new markets but on the other hand, it has to compete with other major wine producing countries in the global market. The opening up of new markets has had a positive effect on South African wine exports. Wine has become South Africa's largest agricultural export. Wine exports have increased tenfold in the period following South Africa's re insertion into the world market, from 22 million litres in 1992 to over 215 million litres in 2002 (Sawis, 2003). South Africa's main export markets are the United Kingdom, the Netherlands, Germany, Sweden and Denmark. The United Kingdom accounted for more than 40% (of value) of South Africa's total wine exports in 2004 (40.2%), the Netherlands 18.6%, Germany 10.1%, Sweden 6.2% and Denmark 3.4%. A number of countries like the United States, Canada and Japan have also been identified as new emerging markets for South African wine (Loubser, 2001). In 2004, Canada imported 3.2% of South African wine, the United States imported 2.9% and Japan 0.6%. The last few years have seen impressive growth in South African wine exports, specifically to the United Kingdom. South African wine exports to the United Kingdom increased by 70% between 1997 and 2000 (Hands and Hughes, 2001). South Africa moved from 6th to 4th position in the UK retail sector and sales of South African wine in the United Kingdom increased by 26% from 2001 to 2002 (Greenberg, 2003). In 2004 South Africa accounted for 11% of wine sales in the United Kingdom (Ewert, 2005). Export growth in South Africa's other main markets was also particularly significant in 2004. Exports to Germany increased by 24% in terms of value between 2004 and the first quarter of 2005, sales to Denmark doubled during the same period and sales to Sweden trebled. This placed South Africa 3rd, ahead of France in terms of wine exports to Sweden (Ewert, 2005).

Table 4: Bottled and Bulk Natural Wine Exports per Country – Litres

	2003				2004			
COUNTRIES/COUNTRY GROUPS	WHITE	RED	BLANC DE NOIR / ROSé	TOTAL	WHITE	RED	BLANC DE NOIR / ROSé	TOTAL
United Kingdom	58 357 547	43 784 337	1 179 275	103 321 159	60 841 564	44 038 408	2 365 992	107 245 964
The Netherlands	14 219 323	24 223 768	3 515 950	41 959 041	16 707 167	27 452 122	5 286 589	49 445 878
Germany	9 148 980	10 338 733	514 190	20 001 903	9 649 639	15 730 791	1 472 073	26 852 503
Sweden	5 112 544	7 481 650		12 594 194	6 737 904	9 791 605	8 055	16 537 564
Denmark	1 892 641	5 386 859	10 868	7 290 368	2 384 639	6 552 075	2 385	8 939 099
Canada	3 956 869	2 080 598	29 907	6 067 374	5 329 817	3 129 154	52 835	8 511 806
Belgium	3 474 478	3 512 347	455 820	7 442 645	4 127 052	3 536 342	399 127	8 062 521
United States of America	2 015 675	2 752 968	86 000	4 854 643	3 308 809	4 347 177	73 751	7 729 737
Australasia	10 794 170	148 213	44 811	10 987 194	6 237 266	84 579	56 952	6 378 797
France	2 874 817	3 115 398	1 156 822	7 146 037	2 381 336	2 378 803	874 080	5 634 219
Finland	2 770 723	856 220	630	3 627 573	3 607 866	1 226 974	9 945	4 844 785
Switzerland	952 759	1 172 735	262 173	2 387 667	1 781 581	1 143 488	415 751	3 340 820
Africa*	966 731	1 012 725	23 719	2 003 175	1 402 523	1 327 416	46 732	2 776 671
Norway	122 746	1 187 392	585	1 310 723	370 802	2 338 750	270	2 709 822
Far East	499 173	940 098	18 347	1 457 618	598 668	1 078 660	43 195	1 720 523
Japan	658 383	939 101	17 969	1 615 453	556 165	1 020 025	135	1 576 325
Eastern Europe	366 350	608 913	11 421	986 684	477 334	780 764	26 015	1 284 113
Middle East	329 194	324 203	3 935	657 332	427 298	529 143	5 423	961 864
African Islands	182 680	157 985	79 836	420 501	252 864	217 478	83 148	553 490
South America	47 391	137 598	450	185 439	73 677	306 485	1 170	381 332
Austria	50 720	204 493		255 213	65 719	283 960	14	349 693
Central America	139 729	145 179	16 890	301 798	135 197	138 047	14 247	287 491
Iceland	50 218	146 327		196 545	66 598	189 050		255 648
Rest of Western Europe	79 335	59 498	3 339	142 172	68 796	54 044	3 727	126 567
Total	**119 063 176**	**110 717 338**	**7 431 937**	**237 212 451**	**127 590 281**	**127 675 340**	**11 241 611**	**266 507 232**

Source: SAWIS, 2005

In 2004, South Africa exported 266 507 232 litres of natural (including bottled and bulk wine) wine which translates into an increase of 12.35% from 2003. Exports of red wine increased by 15.3% from 2003 and accounted for 48% of all natural wines exported in 2004. According to WOSA, varietals which showed the most export growth in the case of bottled wines during 2003 compared to the previous year were Shiraz, Merlot, Chardonnay and Sauvignon Blanc[18].

However, industry experts, like Sue Birch of Wines of South Africa for example, have expressed the view that one of the key strategies for the South African wine industry to become more competitive in the international wine market is to sell more wine in the £5 and above price range. At the moment, 80% of South African wine in the UK market sells in the 'basic[19]' category.

[18] www.wosa.co.za

[19] Based on the Rabobank classification the wine market is divided into five class segments; *icon* wines which are very exclusive, aimed at the wine connoisseur and sell for R350 or more, *ultra-premium* wine which is aimed at the wine lover and sells in the R100-R349 bracket, *super-premium* wines which are aimed at the experimenting consumer and sell for between R50-R99 a bottle, *premium* wines also aimed at the experimenting consumer and sell for between R36 – R49 a bottle and *basic* wine aimed at the price-focussed consumer and sells for under R35 a bottle (Rabobank in Spies, 2000: 139)

According to Su Birch, SA wines struggle to break into the 'premium' category.

To this end, WOSA set a target for itself to encourage the industry to increase its exports of wine in this price category from 483 000 cases in 2004 to 500 000 cases by the end of 2005[20]. In order for the South African wine industry to compete successfully with other New World wine producers like Australia and Chile, South Africa needs to build strong brands in the "attractive premium segment of the market (EUR 5-7/bottle)". This, according to an analysis of the South African wine industry conducted by Heijbrook for Rabobank International (2004), is the only way for the industry to attract foreign investment which would put the industry in a position to access the capital and resources necessary to build strong brands and produce the volumes necessary to compete successfully in the export market. South Africa's lack of strong brands in the premium segment of the market means that it lags far behind other exporters in terms of average export prices. In fact, according to Heijbrook "South Africa's average export prices are about the lowest of the major exporters and about half of the average export price for Australian wine" (2004: 11). It is thus clear that if South Africa is going to stake its claim on the international wine market it is imperative that the industry improves the quality of the wine produced in order to build strong brands and move into higher price points, i.e. the attractive premium and ultra-premium segments of the market.

2.3. History of the South African Wine Industry

The major themes characterizing the history of the South African industry are those of protectionism, regulation as well as exclusion and exploitation of the mainly coloured workforce. These are the very issues which to a large extent account for the industry's current position on the international wine market and the challenge it faces to improve the quality of its wines. Although South African wine has made impressive inroads into the international wine market in the last few years, the South African wine industry is still lagging behind wine-producing countries like France and Italy and trying to compete with other New World producers like Australia and Chile.

The Ko-operatieve Wijnboers Vereniging van Zuid-Afrika Beperkt (KWV), which was the largest co-operative in South Africa, is the most significant role-player in the history of the South African wine industry. The KWV which represented wine farmers who were all members

[20] "Gearing up for more and better exports – Wines of South Africa says plant more" www.grape.co.za/newsarchive/050507wosa_outlook.htm

of the KWV was vested with statutory powers. It managed most affairs related to the wine industry as well as regulated the industry for 71.5 years. The most important function of the KWV was to set minimum prices for distilling wine and to remove surplus wine[21]. Much of this surplus wine was used for the production of distilled products and grape concentrate and a significant proportion was also exported in bulk. The brandy industry has traditionally constituted a major share of the South African alcoholic beverage market. This meant that much of the production of wine grapes, both in terms of varieties planted and yields, was specifically geared towards the demands of the brandy market (Heijbrook, 2004). As a result, the South African wine industry is still trying to bring its varietal composition and yields in line with the quality demands of the international market. Although the last few years have seen an increase in plantings of new cultivars, specifically "noble" cultivars, this is still far below those of other New World wine producers (Heijbrook, 2004: 9).

The KWV's primary role in the South African wine industry was thus to stabilize and regulate the industry through price controls and surplus removal and to shield local grape growers from adverse trading conditions. This protectionism afforded to local grape growers by the KWV meant that there was little need or incentive for them to invest in the improvement of the quality of grapes grown. It also meant that a large section of the South African wine industry was out of touch with developments on the international wine market and wholly unprepared for the challenges it would face once it re-entered the international market after 1994.

Another important element of the history of the South African wine industry which relates to its current quality dilemma is the history of those who work and live on wine farms in South Africa. It is a history of paternalism in which farm workers were perceived and treated by their employers like children and where the authority and control of the farmer extended beyond the workplace into the homes of workers. According to Du Toit " until recently, the farmer looked after his workers like a father after his 'children' – benevolently, but also harshly when he thought it appropriate. Far removed from the cash nexus that defines the relationship between management and workers in industry, paternalism on the wine farm interlocked the lives of owner and worker, owner's family and workers' families in toto. Farm worker rights were minimal and paternal authority near absolute" (Du Toit, 1993: 14).

[21] "Surplus wine refers to that part of the annual wine crop that could not be sold in the local market at the statutory minimum prices" (Spies: 2001:p31)

Farm workers on wine farms were and to a large extent still are subjected to working and living conditions marked by extreme poverty, exploitation and deplorable living conditions. Alcoholism and substance abuse continues to be a problem on many wine farms in the Western Cape. A survey of a sample of wine farms in the Stellenbosch area conducted by the Dopstop Association in 1998 found that 76% of men and 34% of women consumed alcohol regularly and 83% of those who reported that they were current drinkers were considered problem drinkers according to a screening questionnaire used to detect problem drinkers (London et al in Brown et al, 2003: 23). This is largely a legacy of the "tot system", a system in which workers were given wine by the farmer at certain intervals during the working day in lieu of wages. This system was prevalent on South African wine farms. Although the system has been outlawed since 1963, many of the consequences of this system, alcoholism, gendered and domestic violence, child abuse, absenteeism, low productivity etc. still persist on wine farms today.

Not surprisingly, the South Africa wine industry's history of poor labour relations has had a detrimental effect on worker productivity. According to Ewert et al, compared to other new world producers, labour productivity on South African wine farms is particularly low. In Australia for example, one worker works 8 hectares on average, compared to South Africa where the average is 3-5 ha per worker (Ewert et al, 1998). Labour costs on South African wine farms are also relatively cheap, with labor accounting for only 17% of running costs on an average wine farm (PriceWaterHouseCoopers, 2003). This could possibly account for employers' reluctance to invest in training and skills development of their workforce as this would mean that they would have to bring wages in line with acquired skills. Furthermore, Ewert et al argue that "farmers' skepticism and poor living conditions coupled with workers' lack of self-esteem hamper efforts at training and increasing productivity. However, many industry players agree that investment in human capital development and increased productivity would have to form a key element of any strategy to improve the quality of South African wine and the international competitiveness of the South African wine industry.

The South African wine industry's history of regulation and protectionism which characterise 79 years of KWV rule as well as the industry's history of paternalism and oppressive labour relations have had very real consequences, a lot of it negative. This became especially apparent in the early 1990's when South Africa re-entered the international arena.

3. The International Wine Market

3.1. Size and Scope

The world wine industry produces approximately 6 million hectares of grapes per year. There are approximately 40 different wine producing countries and 2½ million growers worldwide produce about 250-300 million hectoliters of wine per year with a retail value of US$77 billion (Mouton and Spawton in Brown, 2001: 49). The global wine market is very concentrated, both in terms of exports and imports. The top five wine producers in the world are Italy, France, Spain, the United States of America and Argentina. The top three producers alone contribute 50% of total global wine output and the top 10 contribute 80% (Brown, 2001:50). The world's top ten wine exporters are France, Italy, Spain, Australia, Chile, the United States of America, Portugal, Germany, South Africa and Argentina. In 2001, France alone accounted for 40% of global exports, Italy for 17% and Spain for 10% (Anderson, 2004:21).

In terms of imports, the top ten wine importing countries are the United Kingdom, the United States of America, Germany, Belgium, Japan, the Netherlands, Switzerland, Canada, France and Denmark. In the late 1980's these ten countries accounted for 86% of global wine imports and by 2001, this had dropped slightly to 83%. In 2001, the three biggest wine importers (in terms of value) accounted for almost half of global wine imports with the United Kingdom accounting for 19% of imports, Germany for 15% and the United States of America (US) for 14% (Anderson, 2004:22). Germany is the world's largest wine importer in terms of volume and accounted for 19% of the world total in 2001, with the UK, France and the US accounting for 17%, 8% and 8% respectively (Anderson, 2004).

The international market for wine has undergone a number of structural shifts in the last decade. What used to be considered an exclusively "European" product has taken on a more global image over the last few decades. Whereas in the late 1980's Europe accounted for 96% of wine exports and 75% of wine imports globally, a few countries, referred to as "new world producers' are slowly but surely starting to make inroads into a market which before was dominated by European countries (Anderson, 2004: 18). The most significant change in the structure of the global wine market has thus been the emergence of New World Wine producers as a force to be reckoned with in terms of global wine competition and the retreat of Old Wine producers in certain key wine markets.

3.2. Recent Changes in the Global Wine Market

Old World versus New World

New world wine producers have steadily increased their share of the global wine market over the last decade. Between 1992 and 1997, the world wide market share of new world producers increased from 16% to 22% (Loubser, 1999: 86). The "New World" wine producers consist of Australia, Argentina, Chile, New Zealand, South Africa and the United States of America whereas France, Italy, Portugal, Spain, Greece, Bulgaria, Hungary and Romania make up the "Old World" producers. Between 1988 and 2001, the new world producers increased their share of global wine exports from 3% to 18% in nominal US dollar terms, whereas when intra EU-trade is excluded, that for Europe decreased from 91% to 64% during the same period (Anderson, 2004: 21). New World wine producers such as Australia, Chile, Argentina and the United States are growing in stature. New world producers' share of the total volumes of wine bought worldwide was 20% in 2002, compared to 7.8% in 1992 (Greenberg, 2003: 11). In terms of wine markets, the Old World still has dominance over markets in continental Europe whereas the New World has successfully penetrated growing markets in the United Kingdom and North America (Anderson, 2004: 22). Australia is one of the New World producers that has managed to attain particular prominence in the global wine arena, specifically in terms of global exports. When not including intra-EU trade, Australia's share of global wine exports increases from 3% in 1988 to 12% in 2001. As far as the other New World producers are concerned, Argentina, Chile, New Zealand, South Africa and the USA's share increased at an even faster rate, from 4% in 1988 to 22% in 2001 (Anderson, 2004: 24).

A number of factors account for the ascent of the New World producers and the apparent retreat of Old World producers in terms of the dominance over global wine exports. According to Anderson certain domestic conditions and policies both in Old World and New World countries could explain this shift. A number of Old Wine countries are experiencing a drop in domestic consumption of wine. This coupled with overproduction of low quality wine supported by the price-support policies of the Common Agricultural Policy (CAP) means that wine exports have been driven largely by a need to dispose of a surplus of low quality wine (Anderson, 2004: 26). In the New World countries on the other hand, the growth in wine exports has come on the back of conscious business strategies aimed at improving the quality of wine and thereby making inroads into the premium segments of the wine market which is showing the fastest rate of growth in the global wine market (Anderson, 2004: 26).

Changing Consumer Demands and Expectations – Affordable Quality

The early 1990's saw a shift in the international market from a preference for white to red wine. This shift towards red wine was partly influenced by a report by "60 minutes[22]" in 1991 which stated that the French have a lower rate of cardiovascular disease than Americans for example, because they consume larger quantities of red wine. Consequently, between 1991 and 1995, sales of red wine by large retailers in the United States increased by 85% (Spawton and Moulton, 1997 in Brown, 2001).

According to Loubser (2001) the new age wine consumer is more "mature, sophisticated and informed". New- age consumers require a good quality wine at a good price and are less loyal to any product or product category. Consumers want easy to drink wines and more variety. This requires innovation and creativity not only in terms of product development, but also puts new pressure on wine producers in terms of technology, research and marketing capabilities. Anderson predicts that the next few years will see a growing demand from consumers of wine for more differentiation and a greater variety of wines as consumers become more affluent. He argues that consumers will become more sophisticated and will be able to distinguish between different varieties, different wine regions in the world and will be able to discriminate between different brands and labels within brands (Anderson, 2004: 11). Already, even though there has been a decrease in consumption and demand for wine, the demand for better quality wine has increased. This is evident in the fact that the global surplus of wine is largely in the 'commodity' or 'basic' category of the global wine market, with between 30% and 40% of commodity wines being in surplus annually (Spies, 2001:136).

The increased demand for quality wine is particularly evident in the price structure of different categories of wine in different countries. In Australia, sales of wines in the A$ 15 segment are growing three times faster than those in the A$10 price segment (Brown, 2001:58). According to the March 2001 issue of Wines and Vines, sales of wines in the $15 and up price segment have increased by 25% in the United States, whereas those selling in the less than $8 segment have only shown growth of 4%. This trend is also evident in France where "50% of wine sold in 1998 was "appellation controlee", which represents a higher quality wine category" (Ewert and Du Toit, 2005).

[22] A television show in the United States of America

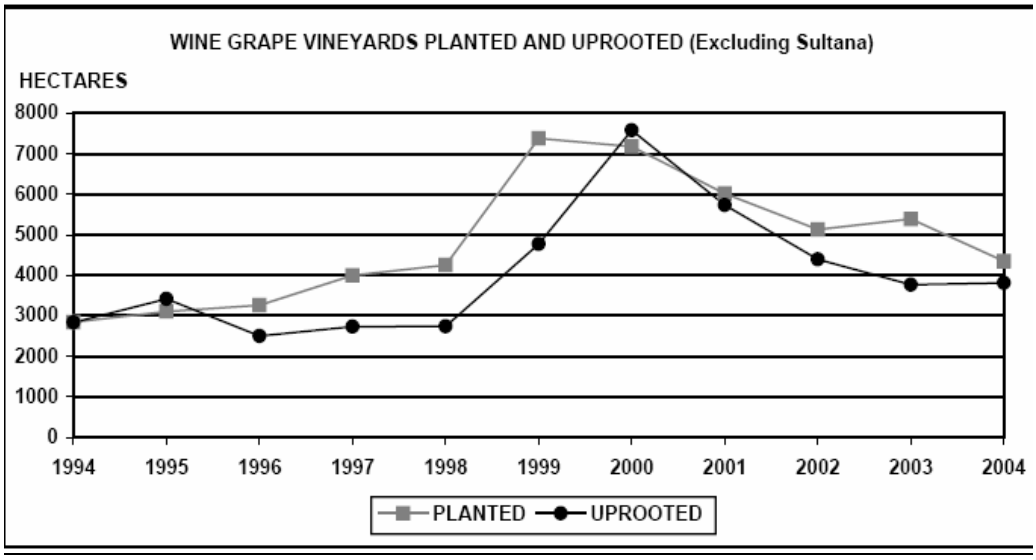
The growing dominance of Supermarkets

According to Ewert and du Toit (2005:320) the increasing demand for wines at the higher end of the market is closely linked to the growing dominance of supermarkets as wine retailers. Spies reports that large supermarket chains distribute between 60% and 70% of all wine sold internationally (2001:137). In Australia for example, the two main supermarket chains, Coles and Woolworths, account for more than 40% of domestic wine sales (Anderson, 2004: 7). In America, 45% of wine is sold in supermarkets and in the Netherlands and Britain supermarkets have over 60% of the wine market (The Economist in Brown, 2001). With Britain being the fourth largest wine market in the world and the biggest importer of wine in the world (Ewert and du Toit, 2005), the dominance of supermarkets as wine retailers in this market is quite significant. Moreover, the last few years have seen a trend towards increased concentration amongst supermarkets with a handful of supermarkets controlling the world food and beverage retail market (Oxfam, 2004). This dominance of supermarkets in the global wine value chain puts enormous pressure on producers and intensifies competition between global wine producers for shelf space. This exerts downward pressure on prices and ensures that the overwhelming share of profits is pocketed by supermarkets as this quote by a South African wine producer illustrates "With the retailers it is really difficult. Just for them to take your wine from one level to another you have to give them £100, 000 (US$170, 000). That bracket value can be as little as 50 pence (US86 cents). Tesco are like that, we basically have to subsidise our wine for them to sell it" (Oxfam, 2004:75).

4. Effects of Changes on the South African Wine Industry

The South African wine industry's traditional bias towards white varieties meant that South Africa's product range was unsuited to that demanded by the international market. As a result, the period since 1993 has seen an increase in replantings as producers are trying to respond to the demand for red cultivars. Between 1993 and 2004, 46 952 hectares of grape vines were uprooted and 56021 hectares were planted (see figure 3). The share of area under red wine varieties increased from 14% in 1993 to 46% in 2004 (Spies, 2001 and SAWIS, 2005).

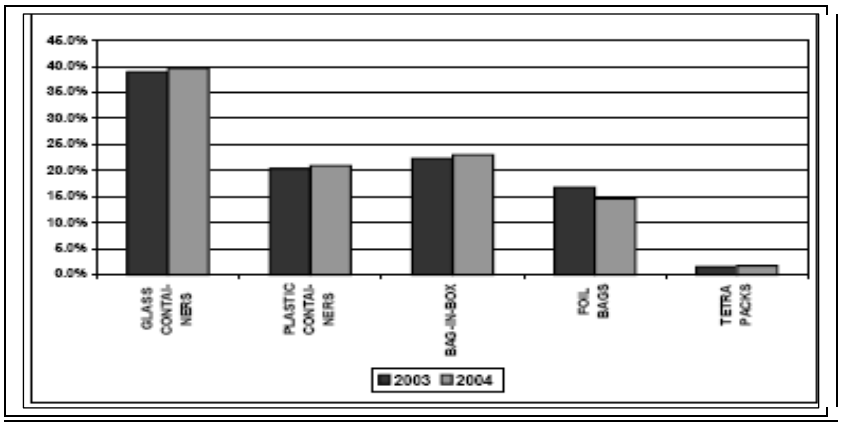
Figure 3: Wine Grape Vineyards Planted and Uprooted: 1994 – 2004



Source: SAWIS 2005

The worldwide shift towards better quality wine at competitive prices has put South Africa, traditionally a producer of bulk, low-quality, cheap wine under tremendous pressure to bring its production processes in line with global trends. According to Loubser only "29% of total wine exports in all markets in 1999 was of the noble cultivars demanded by consumers and as a result most South African wine sold in the below £3 a bottle category" (2001: 26). Also in 1999, only 18% of wine sold in South Africa was sold in 750ml bottles, whereas wines sold in plastic containers and foil bags constituted 46% of the total (Spies, 2001). Although the percentage of wine sold in glass containers increased to about 40% in 2004, wine sold in plastic containers, tapped bags, foil bags and tetra bags still comprise a significant share of the market (see figure 4). This thesis however, does not suggest that an increase in plantings of noble cultivars or red cultivars and more wine sold in glass containers equal better quality wine.

Figure 4: Type of Containers – Natural Wine



Source: SAWIS, 2005

South Africa, as one of the New World producers, faces competition from countries such as Australia, New Zealand, Chile and Argentina. Australia has overtaken South Africa on the world rankings in terms of their respective contributions to world wine production. According to Spies (2001), the Australian wine harvest was half the size of South Africa's twenty years ago, but Australia overtook South Africa in 2000. Moreover, Australia's share of good wine increased to 93% in 2000, whereas South Africa increased its share of good wine to 65% (Spies, 2001). South Africa also does not compare very well to its competitors in terms of red wine production. Chile has 75.4% of the available red grape and Australia 59.2% compared to South Africa's 39% (Greenberg, 2003: 11).

The new international trading environment has opened up new divisions in the wine industry. Not all farms or co-operatives are able to maximize on the new opportunities that the increasingly open international market affords them. The effects have been largely uneven throughout the wine industry. According to Ewert (1996), trade liberalization and de-regulation have produced new winners and losers in the wine industry. On the one hand there are those co-operatives and estate wine cellars that are still oriented towards bulk production of low quality wine and simply do not have the necessary resources, innovative capacity or marketing and business skills to transform their production practices in order to answer to the demands of the international export market. On the other hand there are the private co-operatives and wine estate cellars that possess the resources and technical capacity and have made the switch from volume production to quality production (Ewert, 1996:153). They are the ones that are in a position to

take full advantage of the possibilities that the export market offers. The industry has seen a new trend towards consolidation as a number of wineries and other operations have merged as those on the "losing" end of the spectrum are trying to come to terms with the challenges presented by deregulation and international competition.

One of the most talked about mergers in the industry is the merger between Stellenbosch Vineyards[23] and Vinfruco towards the latter part of 2004. The two merged to form a new company called Omnia[24] which will have an annual turnover of R400 million, 80% of which will be derived from exports (Morris, 2004). Omnia is set to become South Africa's third largest wine exporter after Distell and KWV (Bolin, 2004). Winecorp also merged two of its divisions, its private label division Winecorp PLS (Pty) Ltd. and its brand division Winecorp SA (Pty) Ltd. from August 2004. In 2004 five cellars, Boland Cellars, Riebeeck Cellars, Wellington Wamakersvallei, Wellington Cellars and Bovlei established a joint production company called Cape Coastal Vineyards. In addition to producing wine for their own labels, these cellars would also supply the new company with 80 000 tons of grapes for a new brand geared specifically for the export market (Morris, 2004).

What is more, it is predicted that this type of consolidation will continue into 2005 as producers struggle to come to terms with the challenges facing them on the international market (Bolin, 2004). Interestingly though, this trend towards consolidation has also been accompanied by a parallel trend towards diversification as everyday more and more new wineries open and new labels are launched. Ewert and du Toit (2005) report that between 1998 and 2001 the number of private cellars and independent labels increased from 105 to 185. In 2002 alone thirty-three more cellars were registered.

But labour has also felt the effects of the new dispensation. Deregulation and international competition have also produced new winners and new losers amongst the workforce on South African wine farms. A number of studies have commented on the growing trend of casualisation in South African agriculture. The permanent, on-farm labour force on farms are being replaced by off-farm, seasonal and contract workers. A survey of 77 wine, vegetable and fruit farms conducted by the Programme for Land and Agrarian Studies (PLAAS) for the Centre for Rural Legal Studies in 2001, found that close to 60% of the farms surveyed had reduced their

[23] Stellenbosch Vineyards was the product of the merger of four Stellenbosch area co-operatives (Vink, 2007)
[24] Omnia changed its name to "The Company of Wine People" in 2005

permanent labour force in the last 3 years and on 47% of the farms management had plans to reduce their permanent labour force in the future (Ewert and du Toit, 2005). The off-farm seasonal labour force consists primarily of women and increasingly African workers.

The above-mentioned survey found that coloured males constitute 68.51% of the permanent workforce on farms and African males constitute 8.71% compared to coulored females who constitute 20.52% and african females who constitute 2.8% of the permanent labour force. The opposite is true for the temporary, seasonal labour force. Coloured males constitute 25.39% and african males 10.13%, while coulored women represent 44.8% and african females 19.7% of the temporary workforce (Du Toit and Ally, 2001). The position of the temporary labour force is very precarious, not only in terms of employment opportunities, but they are also mostly excluded from benefits such as protective clothing, maternity benefits, a pension fund, etc. According to Ewert and du Toit (2005), increasingly the labour force arrangement on most farms seem to consist of a core of permanent on-farm workers who are "skilled" and relatively "privileged" in terms of benefits, supported by a secondary labour force consisting of seasonal, mostly women workers whose employment is insecure and offer few, if any benefits.

The effects of global pressures have been uneven, with some being harder hit than others. Considering the challenges facing the South African Wine Industry, many industry players are in agreement that transformation has become of critical importance. In line with this realization, the industry has seen a number of significant developments over the last few years in an effort to respond to the challenges facing it. These developments have occurred at different levels and have been initiated at government, industry and production level.

5. Efforts at Transformation

5.1. Changes at Production Level

At production level, producers have made a concerted effort to bring their production in line with market trends. The period since 1995 has seen significant growth in the planting of "noble cultivars" i.e. Sauvignon Blanc, Chardonnay, Cabernet Sauvignon, Shiraz, Pinotage and Merlot as producers are working on 'correct' cultivar selection for quality production. The area under sauvignon blanc and chardonnay for example has increased from 4.5 to 6.9 % and 4.0 to 7.3% respectively between 1995 and 2004 (see table 5). Chenin Blanc on the other hand decreased from 28.5% in 1995 to 19.1% in 2004. In terms of red cultivars, the area under cabernet sauvignon for example has more than doubled from 5.0% in 1995 to 13.5% in 2004 and shiraz

from 1.0% to 9.4%.

Table 5: Area Distribution Of Wine Grape Varieties

VARIETY	1995	1996	1997	1998	1999	2000	2001	2002	2003
White Varieties									
Chenin blanc	28.5	27.7	26.8	25.6	23.8	21.4	19.8	18.4	19.6
Sauvignon blanc	4.5	4.7	4.9	4.9	5.1	5.1	5.4	6.0	6.9
Chardonnay	4.0	4.5	5.2	5.7	5.7	5.7	5.6	5.7	6.8
Red Varieties									
Cabernet Sauvignon	5.0	4.9	5.1	5.6	6.7	8.4	9.8	11.0	13.0
Shiraz	1.0	1.1	1.4	2.0	3.3	5.3	6.7	7.5	8.6
Pinotage	2.7	3.3	3.9	4.7	5.5	6.2	6.5	6.4	6.8
Merlot	1.8	1.9	2.2	2.6	3.6	4.6	5.4	5.9	6.7

Source: SAWIS, 2003 and 2005

Producers are also working at bringing their production in line with international environmentally friendly production standards. In 1998, the industry introduced the Integrated Production of Wine (IPW) programme which is based on the Hazard and Critical Control Points (HACCP) food safety principles as well as the ISO 14 000 standards for environmental management (Brown, 2001). The objective of IPW is to ensure that wine is produced with as little as possible interference in the natural environment. IPW is a voluntary scheme but thus far 90% of exporting producers, representing 95% of grapes harvested, [25]have signed up. Monitoring of adherence to IPW guidelines is done in the form of yearly audits by ARC Infruitec-Nietvoorbij and other environmental specialists on a spot check basis. These involve checks on 110 cellars and 36 farms. Wines from producers who do not comply are not certified.

[25] www.wosa.co.za

5.2 Changes at Institutional Level

There have been a number of other developments at industry level. Table 6provides an overview of the most significant developments at industry level as well as developments in the legislative sphere which have a bearing on the South African wine industry.

Table 6 : Institutional and Legislative Developments:1994-2006

Time- Period	Institutional Developments in the Wine-Industry	Developments in Labour and other Legislation Relevant to the Industry
1994-1998	Deregulation (1994)	Labour Relations Act 1995
	Privatisation of KWV (1997)	Basic Conditions of Employment Act 1997
		Employment Equity Act 1998
		Skills Development Act 1998
1999-2001-	Launch of Vision 2020 (1999)	
	Establishment of South African Wine Industry Trust (SAWIT) 1999	
2001-2004	Establishment of South African Wine and Brandy Company in (2002)	Basic Conditions of Employment Amendment Act 2002
	Launch of Wine Industry Plan (2003)	Broad-Based Black Economic Empowerment Act 2003
2005-2007	Release of Draft Wine Charter (2006)	Sectoral Determination 13 for Farm Sector 2006

Some of these developments in the wine industry have come about because of pressure from government, which has forced industry players to think more carefully about transformation and broadening participation in the industry. In 1999 Winetech initiated "Vision 2020", the aim of which was "to design specific and detailed strategies for the three product sectors (wine, brandy and wine distillates and grape juice) of the wine industry operating in a global market which demands quality wine and outstanding customer service". After a detailed assessment of the industry, which gave birth to a number of strategic documents and consulting various stakeholders, Vision 2020 came up with the following recommendations for the future competitiveness and profitability of the wine sector in particular (Spies, 2001):

- Clear market positioning
- Good quality at specific, selected price points
- Innovativeness and flair
- Understanding of the natural potential of wine regions and terroir
- Outstanding value chain management
- Focusing on international market, but not forgetting the domestic market

Although Vision 2020 was well received by most industry players, it has been criticized for being too thin on "practical" steps that need to be taken in order to make the industry sustainable and profitable for all who have a stake in it, especially the marginalized (Ewert and du Toit, 2005). Notwithstanding these criticisms, the last few years have seen the launch of a number of new institutions tasked with the responsibility of implementing the strategic recommendations of Vision 2020. The South African Wine and Brandy Company[26], a consortium which brings together representatives from all sectors of the industry (producers, labour, and traders) was instituted in 2002 and is tasked with the responsibility of mapping out and implementing the strategic direction of the wine and beverage industry. The South African Wine and Brandy Company has five business units.

These consist of Winetech , whose mission statement is "to provide the South African Wine Industry with a sustainable basis of forefront technology and human resources in order to strengthen both local and international competitiveness and profitability", Wines of South Africa (WOSA) whose mandate is to market and promote the export of South African wines in key international markets[27], South African Wine Information and Statistics (SAWIS) which is tasked with the responsibility of compiling and disseminating key industry data and information, the Social and Economic Development Unit and the Human Resources Development and Training Unit.

In November 2003, the South African Wine and Brandy Company (SAWB) launched the Wine Industry Plan (WIP) which brought together stakeholders from all sectors of the industry as well as government. The WIP is supposed to provide a blueprint for creating a more "internationally competitive, ethical and equitable wine industry". The goals of the wine industry strategy plan as set out in the official document released by the SAWB are to (SAWB, 2003):

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[27] www.wosa.co.za

- "increase global competitiveness and profitability
- generate equitable access and participation in the South African context
- enable environmentally sustainable production systems, and
- promote socially responsible consumption of the produce of the vine".

The South African Wine and Brandy Company will be responsible for monitoring the industry's progress in achieving the goals of the wine industry strategy plan through a scorecard. The proposed scorecard, which was to be finalised with input from government and other industry stakeholders, would assess participants on 10 indicators/criteria which are:

- human resources development and employment equity performance,
- social upliftment and rural development,
- business development, service providers and input suppliers,
- economic ownership and equity schemes to benefit historically disadvantaged groups/persons,
- governance systems and participation,
- product quality and integrity,
- technology innovation and transfer,
- market development and promotion
- environmentally sustained production practises
- economic performance

Following the conference in November 2003, the SAWB in partnership with the South African Wine Industry Trust (SAWIT) was tasked with the responsibility of drafting a wine industry BEE charter and scorecard. Progress in finalising the BEE charter and scorecard and black economic empowerment in the wine industry in general has been slow. The December 2004 issue of Wineland reported that although there is a general positive attitude towards BEE in the industry, there is a lot of uncertainty amongst industry players about how to proceed (Du Plessis, 2004). Early in 2006 a draft consultative BEE charter was circulated for comment. A second draft of the "Wine Industry Transformation Charter" was distributed for comment in December 2006. The second draft states that the aim of the charter is to be a catalyst for change and development in the industry and to provide a strategic framework and a scorcecard for the advancement of black economic empowerment in the wine industry (South African Wine Industry Council, 2006). The charter is alligned with the "Codes of Good Practice" of government's Broad-based Black Economic Empowerment Act (BEE) 2003. The strategic

objectives of the charter are to:

- "Facilitate meaningful and equitable access to and participation in the wine industry
- Support the advancement of women in the industry
- Increase black ownership, control and management of land and enterprises along the wine value chain
- Unlock the full entrepeneurial and skills potential of all within the industry
- Advance structural allignment in the financial, research, information, educational and extension support systems
- Make a significant contribution to poverty alleviation
- Establish industry benchmarks in order to lowe access barriers and support effective partnerships, mentorships and ventures between existing operators and new entrants" (South African Wine Industry Council, 2006: 7)

The objectives of the charter and the intentions behind it are laudable and encouraging. However, a great area of concern is the fact that in terms of the "Codes of Good Practice" of national BEE legislation all enterprises deemed as micro enterprises (those with an annual turnover of less than R5 million) are exempted from the provisions of the BEE Act. This effectively means that about 80% of wine grape farmers will be exempted from complying with BEE legislation. The wine industry transformation charter states that it will aim to encourage micro enterprises in the wine industry to comply voluntarily with BEE provisions for the industry especially those related to skills development, rural development and poverty alleviation. The charter is not explicit on the incentives which will be provided to micro enterprises to encourage compliance. Getting farmers to comply when they are not legally forced to do so seems like a tall order, especially considering the fact that the draft charter acknowledges that there is a general disregard for existing labour legislation amongst wine producers (South African Wine Industry Council, 2006:11). This is particulalry worrying as far as skills development and training is concerned as this element has been singled out as a critical component of a strategy to advance the industry's competitiveness. Although the charter sets out a detailled plan for how implementation of the charter and scorecard will be monitored, it is silent on how it will deal with non-compliance, especially by those who are not compelled to do so. In the absence of any punitive measures, the incentives will have to be extremely attractive in order to encourage compliance.

Skills development and training has been highlighted by many industry players as a pivotal element of any effective and meaningful empowerment strategy. In the words of David Sonnenberg from Diemersfontein Estate, "meaningful empowerment means that you pay attention to what goes on in the workplace – how people get opportunities for training and to develop themselves- that seems to be the thing that is more honest at the end of the day" (in Levermore, unpublished thesis). Moreover, as mentioned before, skills development and training has also been singled out as one of the most vital requirements of any strategy to improve productivity and the quality of South African wine thereby making the South African wine industry more profitable and internationally competitive.

6. Conclusion

The South African wine industry is going through an exciting period of transformation. The industry's history of protectionism, regulation and poor labour relations has certainly retarded the progress the industry has made, specifically in relation to some of the other New World producers. Although it has made significant inroads on the international wine market over the last few years with exports to the United Kingdom and the Netherlands in particular showing significant growth, many industry experts agree that for the South African wine industry to compete successfully with other New World producers like Australia and Chile, it needs to improve the quality of its wine in order to build strong brands, specifically in the premium and ultra-premium segments of the market. Skills development and training has been highlighted as a pivotal element of the industry's efforts to transform itself, produce better quality wine and become more internationally competitive. The next chapter will take a closer look at the skills debate in South Africa as a whole and the wine industry in particular.

Chapter 4: The State's Attempts to Broaden South Africa's Skills Base

1. Introduction

Skills Development and training have become of crucial importance in South Africa. It is now widely accepted that the lack of high level skills in South Africa is a great impediment to economic growth and the country's goal to compete successfully in the international arena. Moreover, human resource development and training have also been identified as one of the key strategies to address social imbalances and to create a more equitable South African society. The government has put very specific measures and policies in place, all of which are designed to advance the skills of the South African workforce. This chapter will detail all these initiatives and provide a sketch of the national skills framework. However, before launching into the national skills framework, the chapter will provide a background for why there is such a dire need for skills development and training in South Africa.

2. Why The Need For Skills Development And Training in South Africa?

South Africa, like many other developing countries is, struggling to make its mark in the new global economic environment. In line with global demands, the democratic government has committed itself to a more open economy. The government has put specific measures in place to facilitate the opening up of the South African economy, through for example its macro-economic policy "Growth, Employment and Redistribution" (GEAR). These measures included an aggressive tariff reduction programme, a gradual relaxing of exchange controls, tax incentives to business to attract investment and a programme aimed at making the South African labor market more flexible (Biggs, 1997: 48&49). All these measures were aimed at opening up the South African economy and making South Africa more "investor-friendly". The National Department of Finance and the Department of Trade and Industry have declared international investment and a shift towards exports the most effective means of attaining economic growth in South Africa.

South Africa was one of the signatories of the General Agreement on Trade and Tariffs (GATT) and has since 1990 reduced tariffs on imports as required by GATT. However, in line with its GEAR commitments, it has reduced tariffs at a faster rate than required under GATT. For example GATT requires South Africa to set its tariff levels on agricultural, forestry and fishing imports at 41.2%, but by 1998 the South African government had reduced tariffs on these products to 2.2%. Similarly, the GATT tariff level for manufacturing imports are at 16.1%, but South Africa has brought tariffs on these imports down to 4% (Nicholson, 2001).

The South African government's commitment to creating an open economy puts immense pressure on local industries to become more internationally competitive. A Global Competitiveness Report of 1996, produced by the World Economic Forum, rated South Africa 43rd out of 49 countries in terms of international competitiveness (Biggs, 1997). Although this survey did not include many other African countries, South Africa was still well behind other developing countries such as Chile, Mexico and Malaysia. A recent Institute for Management Development (IMD) World Competitiveness Report rated South Africa last out of 60 countries in terms of Human Resource Development (South African Good News Views, 2004). Although these 60 countries are the top 60 countries in the world in terms of the size of their economies and their institutional and infrastructural development, the fact that South Africa was rated the worst in terms of human resource development is still worrying. It is common wisdom across all sectors of South African society, from government to business to labor that growing South Africa's skills base and specifically its highly skilled population, will play a significant role in South Africa's quest to become internationally competitive. But what exactly is the state of South Africa's skills base?

The 1997 Green Paper, "Skills Development Strategy for Economic and Employment Growth in South Africa", defined 'skill' as "the necessary competencies which can be expertly applied in a particular context for a defined purpose. These competencies include practical competence or the ability to perform a set of tasks, foundational competence which is a person's ability to understand what he/she is doing and why and reflexive competence which is the ability to connect or integrate one's performance with an understanding of the performance of others so that once can learn from one's actions and are able to adapt to changes or unforeseen circumstances" (Skills Development Planning Unit, 2003: 1). The lack of skills in the South African labor market is largely a consequence of the education system as well as labor market policies pursued under Apartheid which were characterized by under-investment of the private sector in the education and training of the workforce, a fragmented training system and an education system characterized by massive inequalities.

3. The Current State of Skills in South Africa

The South African labour market has often been described as a dual labour market. On the one hand it is characterized by a lack of highly skilled human resources accompanied by an over supply of unskilled and low-level skilled human resources. A number of important shifts have occurred in the South African labour market over the past three decades which bear testimony to

its dual nature. There has been a systematic decrease in the demand for unskilled and low-level skills over the past two decades, whereas the demand for high level skills[28] has increased. According to a study done by Bhorat (2000) covering the period 1970 to 1990, the occupational categories professional, semi-professional and technical occupation as well as managerial occupations, generally considered the occupational categories which require the highest level of skills, have reported the largest employment increases. During the period 1970 – 1995, these categories account for employment gains of 2 million jobs (Bhorat, 2000: 4). Low-level skills jobs, such as farming, labourers and production work, on the other hand have either decreased substantially or have shown minimal increases. The number of labourers, for example had only increased by 8%, or 50 000 jobs, during this period (Bhorat, 2000). Farming has seen the most dramatic drop in employment over this period with the number of jobs in the farming sector declined by 50% during this period (Department of Labour, 2001).

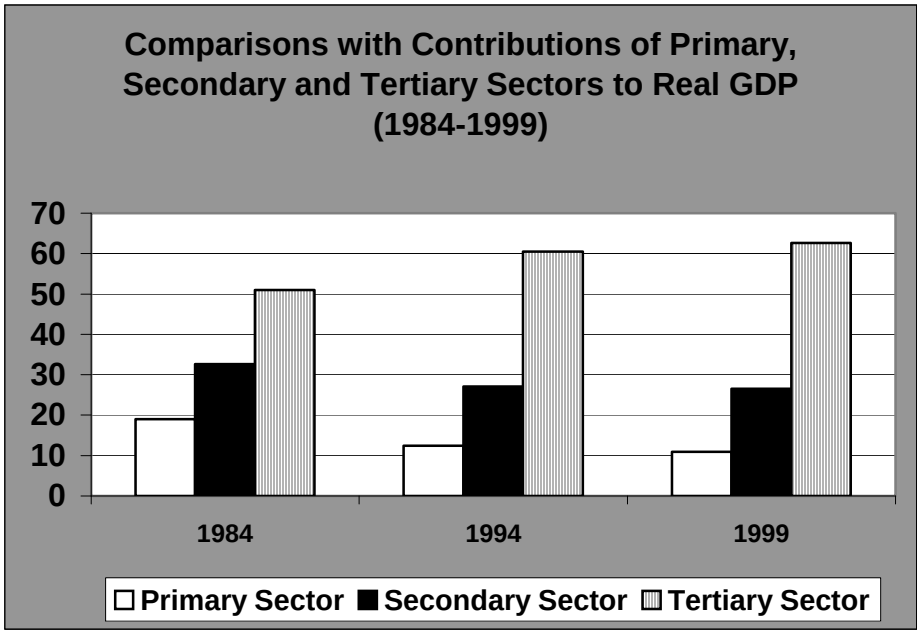
Between 1990 and 1998, formal employment of semi-skilled and low skilled workers decreased by 19% or approximately 700 000 jobs, whereas employment of skilled and highly skilled workers increased by 12% or 80 000 jobs (Skills Development Planning Unit, 2003). According to a report on the "State of Skills in South Africa" by the Skills Development and Planning Unit, published in December 2002, the sectors with the highest employment levels overall were 'community and social services', 'trade' which include wholesale, retail, hotels and others as well as 'manufacturing' and 'business services' respectively. Sectors in decline overall in terms of employment include agriculture, mining and transport. These sectors, according to the report, are "employing proportionately more skilled and highly skilled workers even as they are shedding others at the lower end of the qualifications spectrum" (Skills Development Planning Unit, 2003: 13). In agriculture, for example, the category low-skilled employment decreased from 77% in 1995 to 43% in 2002 while the semi-skilled category increased from 22% to 56% during the same period. The same trend is also visible in mining and quarrying.

These changes have occurred across the different sectors of the economy, with the most notable increase in the demand for skilled human resources occurring in the service sector. In the manufacturing sector, the professional and managerial occupational categories increased substantially, whereas that of production workers decreased (Skills Development Planning Unit,

[28] High level skilled refers to those in the professional and managerial occupational categories, middle-level skilled are those skills required in the clerical and service sectors and low-skilled refer to occupational categories such as farming, labourers and production work.

2003). However, the shift in the demand for skilled labour away from unskilled and low-level skilled labour can also be explained by the change in the structure of the South African economy. The primary sector traditionally formed the basis of the South African economy, with mining and agriculture being the major contributors to the South African GDP. However since the late 1950's the economic importance of the primary sector has been on a circular decline (see figure 5). Since the mid – nineties, there has been a rapid increase in the importance of the tertiary sector as an economic driver (Nicholson, 2001).

Figure 5: Comparison of Contributions of Primary, Secondary and Tertiary Sectors to Real GDP _1984 – 1999).



Source: Nicholson, J (2001) "Measuring Change – South Africa's Economy Since 1994"

The shift in the demand for more skilled labour is also borne out by education data. According to Bhorat, the largest increase in the demand for labour was for individuals with tertiary education. The demand for human resources with this level of education rose by 2028% over the period 1970-1995 while the demand for individuals with primary or secondary schooling declined by 24% over this period. Bhorat attributes these shifts to technological change and trade liberalization in South Africa. According to Bhorat " the rising capital intensity in the different sectors of the economy, coupled with greater computerization, has meant the need for more high-end workers" (2000). The increase in the demand for highly skilled human resources seems to correspond to the periods when South Africa first started opening up its economy and exposing local industries to international competition. Particularly in the manufacturing industry,

the period 1993-1997 saw huge job losses in the unskilled occupational categories, compared to increases in high level skilled occupations (Bhorat, 2000). This was also the period in which South Africa embarked on its aggressive tariff liberalization programme. Although there has been a steady increase in the demand for skilled labour and a decline in the demand for unskilled and low-level skilled labour, the education system in South Africa fails to supply the skills needed by the South African economy which would enable it to compete successfully in the international arena.

In 1991, the skills structure of the non-agricultural sectors showed the following pattern (refer to figure 6): High-level skilled workers accounted for 16% of human resources, middle –level skilled workers accounted for 34% and low level skilled workers accounted for 50% of human resources (Kibuuka, 1997: 33). The category scientists and engineers, precisely the category of workers which is crucial for ensuring the international competitiveness of a particular country, is also not very well represented in South Africa. In 1991, the total number of scientists and engineers in South Africa represented 0.3% of the total South African workforce, compared to 7.1% in Japan, 2.1% in the United States and 4.5% in Germany (Kibuuka, 1997: 34).

Figure 6: Skills Levels in Non-Agricultural Sectors : 1991

Source: Department of Labour, 2001

The lack of high-level skills has continued well into the 1990's and the present. The Human Sciences Research Council (HSRC) reported in 1999 that there is a "shortage of versatile and experienced managers and professionals across all sectors of the South Africa economy" (Hall and Loodt, 1999). Seventy-six percent of the 273 organisations that participated in the study

reported a shortage of high level skilled human resources, specifically in the professional category. The most severe shortages are reported in engineering, information technology specialists, economics, medical practitioners as well as mathematics (Hall and Loodt, 1999). The HSRC report found that shortages exist in exactly the categories which have experienced high growth in demand and concludes that the growth in supply will not match the growth in demand for these skills. The Skills Development Planning Unit of the Department of Labour reported in 2003 that of the 11.03 million workers employed in the South African economy "6.7% had no educational qualifications, 51.9% had an educational attainment below Grade 12 or matric, only 25.1% had a Grade 12 or matric and the remaining 15.2% had achieved a qualification level above Grade 12 or matric". At the same time, Statistics South Africa estimated the official unemployment rate to stand at 27.8% while the expanded unemployment rate was estimated to be around 41.2%[29] (Statistics South Africa, 2004). This again serves to illustrate the fact that South Africa has a dual labour market characterized by a lack of high-level skills accompanied by an oversupply of unskilled labour which cannot be absorbed, given the structural shifts which have occurred in the South African economy over the past 2-3 decades.

However, the need to invest in the development of the skills of the South African population is crucial not only to improve the country's international competitiveness. Government has also highlighted equity and social redress as an equally important reason for the development of South Africa's skills base. Employment of black people decreased by 3.8% between 1970 and 1995, whereas employment for coloureds, asians and whites increased by 65.5%, 100.6% and 45.2% respectively. This drop in the employment of black people is attributed to the fact that black people occupy mostly unskilled and semi-skilled occupations and the primary sector, which employ mostly unskilled and semi-skilled people, reported high job losses during this period (Department of Labour, 2001: 20). In 2002, unemployment amongst Africans stood at 46.62%, that for colored, Asian and whites stood at 29.59%, 24.57% and 9.17% respectively (Bhorat, 2005). Similarly, unemployment is higher amongst females than amongst men. In 2002, unemployment amongst females stood at 45.32%, while unemployment amongst males stood at 33.84% (Bhorat, 2005).

The results of the 2001 employment equity reports submitted to the Department of Labour show

[29] The *official unemployment rate* according to Statistics South Africa include " a) people who did not work in the 7 days prior to census night, b) wanted to work and were available to start work within a week of census night and c) had taken active steps to look for work or to start some form of self-employment in the four weeks prior to census". The *expanded unemployment rate* excludes criterion c.

that black employees (including African, coloured and Indian) "account for 97% of all positions in the elementary and unskilled job categories and whites only 3%". As far as management positions are concerned, blacks occupy 25% of top management positions and 20% of senior management positions whereas whites occupy 75% of top management and 80% of senior management positions (Andrew Levy, 2003-2004). Women on the other hand occupy 12% of positions at top management level and 18% of positions at senior management level whereas men constitute 88% and 82% of top and senior management positions respectively. The most important barrier to the advancement of employment equity identified by employers is the "scarcity of people from designated groups with the appropriate skills to be employed in jobs targeted for people from designated groups". It is clear then that skills development is imperative not only to make South Africa more internationally competitive, but also to realise the country's ideals of creating a more just and equitable society.

The other target for skills development and training is the mass of unemployed people in South Africa. Between 1995 and 2002, 1.6 million jobs were created and employment increased by 16.75% during this period. However, the labour force or economically active population grew by 52.38% during the same period (Bhorat, 2005). Thus, even though jobs were created, the target growth rate should have been 52.38%, instead of 16.75%. As a result, unemployment grew from 2.5 million in 1997 to 4.8 million in 2002 (Skills Development Planning Unit, 2003: 4). The unemployed thus represent an important target of the government's skills development strategy.

4. Government's Response to the Skills Crisis

4.1. The Skills Development Act, 1998

The Skills Development Act of 1998 was the democratic government's response to the skills crisis discussed above. The government's skills development strategy and its human resources development strategy in general is aimed at three structural problems which are largely a consequence of the Apartheid government's policies and which still plague South African society today. These are: South Africa's low global competitiveness rating mentioned previously, massive inequalities and huge unemployment. The Skills Development Act "provides a framework for the implementation of workplace strategies to improve the skills levels of the South African workforce, both at national and industry level" (Department of Labour, 1998). South Africa's new skills development strategy, embodied in the Skills Development Act, represents a radical shift away from the skills development and training strategy of the previous government. Skills development and training under the previous regime

was based on a voluntarist system and largely market-driven. The current skills development and training strategy recognises the necessity of state intervention in the development and advancement of the country's human resources through education and training (Kraak, 2004). The Skills Development Act allows for the creation of an institutional and regulatory framework for skills development and training and creates intermediary institutions between government and industry. Unlike the skills development and training system under the previous dispensation, which was mostly biased towards those already in employment, the current skills development strategy directs its energies and resources at three levels; the pre-employed[30], employed and unemployed.

The Skills Development Act instituted a compulsory levy system whereby all employers who are registered with the South African Revenue Service (SARS) and have a payroll exceeding R250 000[31] per annum are required by law to pay a levy of 0.5% of payroll . This levy was increased to 1% of payroll from April 2001. The only employers exempted from paying the levy are public service employers and religious and charitable organisations. The Skills Development Act allows for the establishment of 'learnerships'. These learnerships are similar to the old apprenticeship system. Learnerships include practical and theoretical instruction. Unlike the old apprenticeships though, learnerships are not only reserved for those in employment, but are also available to the pre-employed and the unemployed.

The Skills Development Act also allows for the establishment of the National Skills Authority (NSA) and about 27 Sector Education and Training Authorities (SETAs). Twenty percent of the levy paid goes to the National Skills Authority and 80% is allocated to the SETA. The responsibilities of the National Skills Authority include:

- "Defining national skills development policy in consultation with the Department of Labour
- Consulting with and giving advice to the Minister of Labour concerning targets and priorities for the nationals skills development strategy
- Approving the allocation of moneys from the National Skills Fund on the basis of recommendations from the Department of Labour " (Kraak, 2004)

[30] Those who have never held a formal job, for example unemployed youth or matriculants who have just finished school

[31] Currenly R500 000

Some of the core functions of SETAs include the following (Kraak, 2004: 119):

- The development of a Sector Skills Plan
- Promoting the implementation of the Sector Skills Plan
- Promoting learnerships
- Registering learnership agreements with the Department of labour
- Collecting and disbursing the skills development levies in the sector
- Liaising with the Department of Labour and the NSA

In addition to these core functions, SETAs are also responsible for acting as an intermediary between government, employers and worker representatives. According to Kraak, some of the SETAs' other responsibilities include "assisting and encouraging employers to prepare workplace skills plans and to pay a mandatory grant to employers who prepare such a plan and to establish awareness strategies to enable links with employers, trade unions, training providers and other groupings" (Kraak, 2004: 119).

In terms of the provisions of the Skills Development Act, employers can claim up to 50% of the skills levy they pay back in the form of various levy grants. However, employers are not forced to claim this money back and can only do so once they have developed and implemented a workplace skills plan and on completion of the training programs outlined in their 'workplace skills plans'. There are four different types of levy grants which employers can claim back from the SETA:

Grant A- employers can claim back up to 15% of the total levy paid in a given year for creating an in-house training plan or for contracting a skills training facilitator
Grant B – this is a reward of up to 10% of the levy paid in the year paid back to employers for completing and submitting workplace skills plans which satisfy the SETAs standards
Grant C – employers can claim back up to 20% of the levy for implementing and successfully completing training programmes as per their workplace skills plans and for submitting reports on these training programs to the SETA
Grant D – is a discretionary grant of 5% of the levy paid by the SETA to employers in order to encourage further education and training.

In addition to the above grants, in April 2002 the Minister of Finance also instituted tax breaks for employers who offer learnerships. Employers qualify for a R25 000 deduction upon signing

of a learnership agreement and a further R25 000 deduction upon the successful completion of a learnership (Kraak, 2004: 126).

4.2. The National Skills Development Strategy

The National Skills Authority is also responsible for devising a National Skills Development Strategy (NSDA), in consultation with the Minister of Labour. This NSDS is implemented over a five year period and revised after 5 years. The National Skills Development Strategy for the period April 2001 – March 2005 was launched in February 2001 and had five core objectives with very specific success indicators. The objectives were as follows (Department of Labour, 2001):

- "Developing a culture of high quality life-long learning
- Fostering skills development in the formal economy for productivity and employment growth
- Stimulating and supporting skills development in small businesses
- Promoting skills development for employability and sustainable livelihoods through social development initiatives
- Assisting new entrants into employment"

Although some regard the indicators as too ambitious, the Andrew Levy Employment Publications Annual Report for the period 2003-2004 reported that many of the objectives of the NSDS were already realised or were close to being realised. For example, of the original goal of 1.3 million workers who were to have completed structured learning programmes by March 2005, close to 1 million workers had done so (Andrew Levy Employment Publications, 2003-2004). By March 2005, 40% of medium sized enterprises were to have participated in the grant rebate system of the Skills Development Levies Act. At the time of the Andrew Levy report, over 50% of medium sized enterprises were participating in the grant levy system. However there was less success in terms of adult basic education and training. One of the success indicators of the NSDS was that by March 2005, 70% of all workers should have achieved a National Qualifications Framework level 1 qualification, but by 2004, only 13% of workers had achieved this level (Andrew Levy Employment Publications, 2003-2004). The other area of concern was learnerships. Of the goal of 80 000 learnerships by March 2005, only 32.5% of the target had been reached (Andrew Levy Employment Publications, 2003 - 2004). The revised National Skills Development Strategy for 2005-2010 was launched at the end of February 2005.

The revised NSDS saw an almost complete overhaul of the objectives of the first one. The objectives for the period 2005-2010 are (Department of Labour, 2005):

- "Prioritising and communicating critical skills for sustainable growth, development and equity
- Promoting and accelerating quality training for all in the workplace
- Promoting employability and sustainable livelihoods through skills development
- Assisting designated groups, including new entrants to participate in accredited work, integrated learning and work based programmes to acquire critical skills to enter the labour market and self-employment
- Improving the quality and relevance of provision"

4.3. The National Qualifications Framework

Part of South Africa's broader Human Resources Development Strategy is the National Qualifications Framework. The National Qualifications Framework is the brainchild of many different constituencies in South African society (the trade union movement, government, business, educators and trainers) and was greatly influenced by international experiences like that of Britain, Canada, Germany and especially that of Australia and New Zealand (Govender, 1998: 104). The South African Qualifications Authority Act was passed on 4 October 1995 and gave the South African Qualifications Authority power to set up and maintain the National Qualifications Framework. The South African Qualifications Authority (SAQA) consists of 26 members who represent all sectors of the South African society, namely educators, non-governmental organisations, trade unions and business (EIC, 1997). The SAQA's duties include the development of standards and qualifications and the registration of qualifications and standards (Samson and Vally, 1996)

The NQF is an attempt to integrate education and training. It is borne out of the realisation that learning takes place in different contexts and sites and not only through formal schooling. The NQF allows for the accreditation of both formal and non-formal learning. The NQF in many ways represents the trade union movement's attempt to have the experience and knowledge of workers recognised through formal qualifications which they were denied under Apartheid. The goal of the NQF is thus to create a "flexible education and training system which promotes a process of lifelong learning for all South Africans" (Samson and Vally, 1996: 4). The NQF is a joint project of the Department of Education (DoE) and the Department of Labour (DoL). The

DoE sees the NQF as a vehicle to achieve an education system which is based on outcomes, rather than the contents-based education system under Apartheid (Isaacs, 1998: 20). The DoL sees it as a vehicle to implement a skills development strategy for the South African workforce.

With regards to education, the NQF is linked to the development of Curriculum 2005. It is based on a system of outcomes, which refers to a set of capabilities and competencies. These outcomes include essential outcomes (later changed to critical outcomes) which consist of a set of skills or capabilities which are required across a range of occupational settings, for example basic numeracy skills. It also includes specific outcomes which are skills and capabilities which are required for a specific occupational context (EIC, 1997).

The NQF credit system is based on unit standards that consist of a set of specific outcomes that a person must master in a particular unit of learning (EIC, 1997). Learners receive credits once they're achieved all the essential and specific outcomes in a specific unit of learning and, based upon these, progress through the different levels of the NQF (EIC, 1997).

The NQF has three bands of learning, which essentially integrates education, and learning. These bands are (Department of Labour, 1998).

- General education and training which comprises education and training obtained in formal schooling or adult basic education and training and incorporates NQF level 1.
- Further education and training which comprises training and education obtained in schools, the workplace and industrial and training colleges and incorporates NQF levels 2-4.
- Higher education and training comprising of education and training received in universities, technikons and colleges and incorporates NQF levels 5-8
-

The essential component of the NQF is flexibility, which allows people to progress easily between different levels, for example "the system allows people to study towards completion of a particular level in their own time by accumulating unit standards individually (Vally and Samson, 1996: 6). The NQF also provides for the recognition of prior learning which means that people will receive credits for competencies and skills which they did not necessarily acquire through formal education. This recognition of prior learning allows people to enter the system at any level based on previous learning experience, both formal and informal (EIC, 1997: 17). Another aspect of the NQF is that it allows for the portability of skills, which means that qualifications can be transferred between different learning situations. For example it allows for

qualifications obtained in one job to be carried over into another job or from one industry to another (EIC, 1997).

A very complicated structure involving a number of different administrative bodies was proposed for the administration and organisation of the NQF by the Department of Education's Working Document on the NQF (1996). One of these is the Standards Generating Bodies (SGB) that are responsible for setting up and doing research into the drafting of unit standards. These SGB will be overseen by National Standards Bodies (NSB's) that will be responsible for deciding which combination of unit standards will result in a qualification being awarded to a trainee (Samson and Vally, 1996). Another body suggested by the working document was the National Quality Assurance Bodies that would accredit the providers of training and education and would be responsible for issuing certificates. It was also proposed that one Qualifications Council be established for each of the three different bands of the National Qualifications Framework (Samson and Vally, 1996).

The NQF has been criticized for being overly complicated and bureaucratic in nature. The language used in the NQF is technical and difficult to grasp. Jansen asks the following question: " why a democratic social project such as the NQF is developing a language so complex and esoteric that a Professor of Education who was involved in the development process right from the start still finds the maze and jargon and tortured definitions so intimidating" (Jansen in Breier, 1998: 74). One other question that comes to mind is how the SAQA would ensure that people understand the NQF structure in order to locate themselves within the system so they can make optimal use of the opportunities that the NQF presents. Efforts were made to make the NQF more understandable and accessible to users through collaboration between the Education Information Centre (EIC) and the Independent Examinations Board (IEB) in 1997. They produced a number of booklets, one of which is "Understanding the NQF: A guide to lifelong learning". Although this booklet attempts to simplify the NQF, one still gets bogged down in the multitude of technical terms used to describe the NQF.

The Department of Labour and the Department of Education set up a Study Team on the Implementation of the National Qualifications Framework. The Study Team was also to investigate ways in which the NQF could be streamlined and accelerated. This team analysed various documents and assessed training activities undertaken by hundreds of institutions and

organizations. Their report on the implementation of the National Qualifications Framework was published in April 2002. One of the main findings of the report was that although there is widespread support for the NQF and its main ideals, "the architecture of the NQF, embracing policies, regulations, procedures, structures and language, is experienced as unduly complex, confusing, time consuming and unsustainable" (Department of Labour and Department of Education, 2002: 1). There was also general confusion about the roles and responsibilities of different institutional bodies, for example the South African Qualifications Authority (SAQA), and the Departments of Education and of Labour. Those who participated in the study also felt that the successful implementation of the NQF was hampered by a general lack of leadership of the NQF amongst the above-mentioned key bodies and institutions.

4.4. Joint Initiative on Priority Skills Acquisition (Jipsa)

In March of 2006 the government launched a new initiative called Jipsa as part of its strategy to expand the skills base in South Africa. Jipsa forms part of government's new growth strategy called the Accelerated and Shared Growth Initiative for South Africa (Asgi-SA). The launch of Jipsa reflects a growing concern in government over the lack of skills in South Africa which has been identified as a significant impediment to economic growth.. Jipsa will be implemented over a three year period and aims to (O'Grady, 2006):

- "identify blockages in the education and training system
- identifying urgently needed skills
- develop strategies to address shortages in the short to medium term".

5. Implementation of Skills Development Legislation and Policies

Although the ideals and motivation for improving the skills base of the South African workforce are laudable and make a lot of sense considering the country's history and new challenges facing the country, the implementation of skills development policies has not been as effective and successful as the government might have wished. Of particular concern has been the performance of most, if not all, of the Sector Education and Training Authorities (SETAs). The Department of Labour announced in 2002 that more than R1 billion had been accumulating in the accounts of different SETAs (Xako, 2002). The reason for this is the fact that companies are simply not claiming back skills levies. According to Nick Ericsson from the South African

Institute of Race Relations, the reason why companies do not claim back money from the SETAs is because "the process of drawing up and implementing an approved training plan has been made so complex and time-consuming that many businesses, especially smaller ones, are not even bothering to submit claims and are simply regarding the payroll levy as another tax (2003: 4).

Bigger businesses, however, seem to be doing better in terms of implementing skills training programmes and by March 2003, 68% of larger businesses were implementing such programmes and claiming back a percentage of the levies paid (Ericsson, 2003). These are most probably companies who have in-house human resources management capacity and have the necessary time and expertise to draw up skills plans and submit these to the SETA. For smaller companies without this kind of expertise, it is extremely difficult to keep up. However this is where the role of a particular SETA is crucial in informing and educating employers in a particular sector about the processes and procedures involved and to try and simplify these. If SETAs are to be the link between government, employers and worker representatives as envisaged by the Skills Development Act, then SETAs should also be readily available to provide employers with the support they need to develop and implement workplace skills plans and to claim the skills levies back. One way of doing this would certainly be to simplify the procedures and the paperwork involved in claiming money back.

Some of the other factors accounting for the poor success rate of the SETAs are allegations of poor financial management, fraud and corruption. Almost two thirds of SETAS were found guilty of underspending and irregularities around personnel appointments by chief executive officers (Ericsson, 2003: 4). This prompted the Minister of Labour to publish a Skills Development Amendment Bill on 25 July 2003 which gives the Minister and Director-General of the Department of Labour powers to "intervene and influence the functions and operations of the SETAs to improve the performance of any non-performing SETA (Andrew Levy Employment Publications, 2003-2004). Some of the most important provisions of the Skills Development Amendment Bill are as follows (Andrew Levy Publications, 2003-2004):

- Each SETA is required to complete a Service Level Agreement every year detailing its performance in terms of the implementation of the Skills Development Act and the National Skills Development Strategy

- If any SETA is found guilty of not performing its functions or mismanaging funds, the Minster has the right to appoint an administrator to take over the administration of that particular SETA
- Each SETA has to provide the Director General of Labour with its annual budgets, annual reports and financial statements
- The Director General of Labour also has the power to suspend or replace any one or more members of a SETA, to suspend the continued operation of a SETA's constitution and to authorize the transfer of all the SETAS funds to the National Skills Fund.

However, not all the blame for the slow pace of implementation of skills development legislation can be laid at the SETAs' doorstep. A lack of willingness on the side of employers to embrace this legislation has also hampered the acceleration of skills development and training. Some have argued that what is needed is a "culture shift" amongst South African employers where skills development and training is seen as an "investment" and not merely as a legislative burden. According to Jeffrey du Preez of the Department of Labour, quoted in the NMG-Levy Employment Equity and Skills Development Digest: "We have to change perceptions, skills levies should not be seen as a tax, but as a way of creating incentives for business to improve its own competitiveness" (NMG- Levy, 2002: 2).

6. Conclusion

The South African government has responded to the country's dire need for high level skills with a range of initiatives and policies aimed at solving the country's skills crisis. However, implementation of these policies has not gone as smoothly as government might have wished. This is partly due to the complexities and bureaucratic nature of some of the skills development legislation, policies and institutions e.g. the SETAs. However, some analysts have also argued that a culture shift is needed amongst South African employers and business, where skills development and training is seen as an investment, rather than an administrative burden. Government has certainly done its bit to try and make skills development and training attractive to employers with a host of incentives in the form of skills levy reimbursements and tax breaks. Even these however seem not to be enough of an incentive to get employers to invest in training and skills development. The next chapter will take a closer look at how these issues play themselves out in the South African wine industry.

Chapter 5: The Skills Debate in the South African Wine Industry

1. Introduction

The production of better quality wine in higher price categories has been identified as a crucial strategy for the South African wine industry to become more internationally competitive. Investment in human resources is a key element of any country or industry's quest to become internationally competitive. The South African government has for this reason invested a lot of time and resources into defining and implementing a skills development strategy for the country. This chapter will examine the wine industry and the status of skills in the South African wine industry. The chapter will also take a look at the skills required to improve the industry's international competitiveness. It will provide the reader with a discussion of the skills development and training environment in the wine industry and the opportunities available in the industry to those who want to upgrade their skills and competencies. The views of industry experts will be discussed as a means of illuminating the most important issues around skills development and training in the South African wine industry.

2. Why the Need for Skills in the South African Wine Industry?

The South African wine industry, like many other wine producing countries, is currently facing major competitive pressures, especially from New World producers such as Australia, Chile and the United States. Industry experts agree that in order for the South African wine industry to compete successfully on the international wine market, it needs to move up the quality ladder and build strong brands by producing greater volumes of wine in higher price points (Heijbrook, 2004). A lot of this pressure for greater quality comes from supermarkets in the North who control the global commodity chain for wine. Retailers want "fewer suppliers and stronger brands"[32]. It is now widely accepted that in today's knowledge-based economy, a country's skills base forms an important component of its industries' global competitiveness. Porter (1990 in Esterhuizen, 2006) argues that a nation's competitive advantage is derived from four attributes namely factor conditions, demand conditions, relating and supporting industries and firm strategy, structure and rivalry. Factor conditions is the one attribute of importance for the purposes of this study as it includes the availability of skilled labour and infrastructure which according to Porter's theory is one of the conditions required for a nation to attain competitive

[32] "Abreast of the News – Challenges facing SA wine exporters"" www.supermarket.co.za

advantage.

According to Nafziger[33] (2002) higher skills are the key to prosperity and the payoffs of investment in the education of the workforce are higher skills which in turn increases productivity which in turn creates more wealth and higher incomes. Nafziger identified a skills shortage amongst the agricultural workforce in Washington state as one of the primary impediments to the global competitiveness of the agricultural industry in this region. This study found that in the agricultural industry 63% of firms reported reduced output and 56% reported reduced quality of products as some of the consequences of skills shortages in the Washington agricultural sector (Wilson, 2002). In a similar vein, Esterhuizen and Van Rooyen (in Esterhuizen, 2006: 235) identify the availability of skilled labour as one of the major constraints to the competitiveness success of the South African agribusiness sector.

A study was commissioned by Winetech in 2000 into the human resources needs of the South African wine industry as part of Winetech's Vision 2020 project. The purpose of this study was to "develop profiles of human resources needs in the South African wine industry and to provide particular human resource development pointers based on a SA situation analysis and comparison with selected relevant countries" (Leibold, 2001: 3). The team defined human resources as "a dynamic, comprehensive concept involving not only skills and competencies (operational knowledge and its application), but also understanding, orientation and creativity (strategic and innovative knowledge) and its application (Leibold, 2001: 4). Human resource development and training came third on the list of the six strategic programmes identified in the South African Wine and Brandy Company's (SAWB) Wine industry Strategic Plan (WIP) which sets out the blueprint for achieving a more internationally competitive and equitable wine industry (SAWB, 2003). Human resource development and skills development also constitute three of the ten points of Vision 2020's Strategic Agenda for the South African wine industry (Spies, 2001). This underscores the significance of the development of the skills and competencies of those who work in the South African wine industry for the industry's future competitiveness and profitability.

According to Rabobank (1999) the major drivers in the global wine industry today are: shifting demand, increasing retail power, increasing competition and creating brand value. In the global

[33] Roundtable discussion on Technology and Skills Upgrading in Agricultural Industries. State Board for Community and Technical Colleges, Washington

wine environment competition between wine producers is no longer based upon quality and efficiency alone, but on a producer's capacity to constantly innovate and its ability to continually upgrade its advantages to higher and sustainable levels (Leibold, 2001: 5). It has been said that Australia's competitive advantage stems from its ability to innovate faster than any of its competitors. Innovation is an all-encompassing term, which refers not only to physical technology, but also includes ways of marketing, communication, creativity, product positioning, negotiating, distributing services, etc. (Leibold, 2001: 5). A producer's ability to innovate is heavily dependent on the environment in which he/she operates and the available human resources pool forms a crucial element of this environment.

Today's global wine trading environment places important skills demands on wine industry workers at all levels of the wine value chain. According to Steven Roberta, of Wines and Vines (1997) "As wine industry jobs become more complex and multi-skilled, both production and managerial employees will need new skills and higher level of skills. Management of knowledge will increasingly determine which industries and companies prosper in the next decade" (in Leiboldt, 2001: 15). According to Chiffoleau et al (2002) the quest for quality wine production, which many[34] agree start in the vineyard, places considerable skills demands on vineyard workers and their managers. Vineyard workers are required to not only possess technical knowledge about the physiology of the vine and how to treat it, but are also required to possess skills such as discretion, observation, the ability to diagnose a particular condition in the vineyard and conceptualisation in order to decide on the appropriate action (Chiffoloeau et al, , 2002: 5). Managers on the other hand should create the conditions in the workplace conducive to learning and the application of acquired skills. According to the authors "managers have to identify and facilitate the development of knowledge and know-how among vineyard operators, which can not be reduced to a set of theoretical and procedural knowledge (Chiffoloeau et al, 2002: 5). But what exactly is the state of skills of the workforce in South African wine industry?

A systematic comparison of certain categories of South African wine industry workers with those in other countries reveals that South African wine industry workers are still lagging considerably behind their counterparts in other countries in terms of their competencies and the level and complexity of tasks performed (Leiboldt, 2001). In the viticulture employee category for example, South African workers perform mostly routine, simple tasks and many of them

[34] Fifteen well-known South African wine-makers as well as the owners/managers of wine farms interviewed for the purpose of this study

have very low literacy levels, compared to Italian and French viticulture workers who are all literate and have access to a definite career path from vineyard worker/labourer to winemaker (Leiboldt, 2001). Although it is probably not fair to compare South Africa to developed countries like France and Italy, considering the country's position and history, it does give one an idea of the work that still needs to be done in terms of the development of the skills and competencies of South African wine industry workers in order for the industry to compete successfully with other wine-producing countries.

With regards to winemaking and cellar personnel, it was found that the winemaker's portfolio in Italy and France for example extends beyond just technical winemaking abilities, but also includes marketing competencies[35] whereas in South Africa the emphasis is still heavily on technical winemaking skills (Leiboldt, 2001: 47). Marketing and distribution skills are of particular importance considering the increased importance of creating brand value, and ever-changing consumer demands. According to Leiboldt what is needed in South Africa is a "dramatic effort to achieve a significant integrated (and measurable) marketing orientation in the entire industry" (2001: 56). South Africa is also lacking in terms of general managerial skills.

Considering the demands of the global wine environment, South African managers need three categories of critical managerial skills; overall leadership skills including for example the ability to lead change, especially cultural change, negotiation and conflict management skills, market/customer focus and entrepreneurial orientation, functional competencies which include knowledge of markets, customers, products and brands, financial management skills and human resources management skills and "softer" management competencies which include business, industry and commercial sense and knowledge, business environment appreciation or grasp and the ability to think globally, regionally and locally in strategic context (Leiboldt, 2001: 62).

But skills development and training in the wine industry is imperative not only to increase the industry's international competitiveness, but also as a means of redressing imbalances in the industry. The majority of the workers employed in the industry are previously disadvantaged people, many of whom have enjoyed very little to almost no formal education. As such human resource development and training is one of the pivotal elements of the Wine Industry Strategic Plan (WIP) to create not only a more internationally competitive, but also a more ethical and

[35] However, this statement may not be true for large parts of the co-operative sector in France and Italy.

equitable wine industry. Many industry experts agree that skills development is crucial to any empowerment effort in the industry. According to Mr. Nosey Pieterse, chairman of the Black Association of the Wine and Spirits Industry (BAWSI) "empowerment in the wine industry includes broadening ownership in the industry, training and skills development, the appointment of previously disadvantaged people in managerial positions as well as greater participation of previously disadvantaged people at all levels in the industry" (Claassen, 2001). This view is echoed by another KWV executive, who feels that empowerment should start by teaching previously disadvantaged people new skills and giving them more and greater responsibilities in the workplace (Claassen, 2001).

However skills development efforts in the wine industry are still hampered by the lingering effects of the wine industry's past. Paternalism and the tot system have created a workforce where the majority of workers have a very low base of education and in addition have very little confidence and low self esteem. Many farm managers on the other hand, still view their workers as not 100% reliable and do not trust them to take on greater responsibility and to apply their own discretion in the vineyard. A study of 9 co-operatives in 3 different wine-making areas in South Africa conducted by Ewert and Hamman (1997) found that skills development and training was not a big priority for most of the farmers surveyed. The majority of farmers surveyed used piecework and other forms of incentives e.g. bonuses as a means of increasing productivity on their farms, while only 22% of those surveyed invested in more training of their workforce.

Even today, when skills development and training have become a legislative requirement through the Skills Development Act (1998) most farmers, even though they pay the skills levy, do not claim money back from the SETA. According to the AgriSETA, of a total of 35 000 commercial farmers, only 7000 paid their skills levies in 2004. In addition, the AgriSETA has accumulated up to R45 million in its bank accounts over a six year period, because so few of those who do pay the levy, bother to claim money back from the SETA. Few employers have workplace skills plans or invest in formal, accredited training programmes for their workers. Training, if it does occur, is mostly informal, on the job training. Some of the administrative hassles with the skills development process referred to earlier could account for this. However a general attitude amongst farmers that says: farm workers do not need to know more e.g. they need to know how to prune, but not why to prune in a particular way, could also be the reason for the low incidence of skills development and training in the industry.

3. The South African Wine and Brandy Company and the Human Resource Development and Training Debate

The South African Wine and Brandy Company (SAWB) recognizes the need for an integrated, coordinated training regime in the wine industry and to this end has set up a specific business unit called the Development and Training Unit. The mandate of the Development and Training Unit is to specifically deal with issues related to human resources development and training, social development and black economic empowerment. According to Mr. Okkie Bosman[36], convenor of the training task team of the BEE steering committee of the SAWB, training efforts in the wine industry should be informed by signals from the market; training should be relevant and should respond to shifts in the market. However, beyond just the economic imperative for training, Mr. Bosman also recognizes the moral and social imperative of human resource development and training in the wine industry. Black people working in the industry have for a long time been excluded from managerial training and positions as well as certified training and good education. Moreover, human resources development and training is also vital for any successful land reform effort. According to Mr. Bosman, in the wine industry specifically there are about 80 000 (if one takes a conservative estimate of 30%) people who would benefit from land reform. This, according to Mr. Bosman, means that at least 28 000 people need to be equipped with technical and financial skills over the next 10 years[37]. This is besides all the other types of training which needs to happen in the industry.

Mr. Bosman agrees that the training regime in the wine industry is still very fragmented. Training efforts should be implemented at all levels of the wine value chain and there is a need for a common training programme and training objectives for cellars, wholesalers, traders and individual farms. The process of establishing a more integrated and better coordinated human resource development and training programme for the industry has begun. In fact training is one of the pivotal elements of the BEE Charter and scorecard being developed by an independent steering committee established by the SAWB and it is envisaged that training will have a 30% weighting in the scorecard along with elements such as ownership and procurement[38]. The BEE Charter and scorecard were supposed to be completed by the end of 2005. This however did not happen. The process of completing the Charter and scorecard has been very slow, hampered

[36] Personal Interview with Mr. Bosman on 15/06/2005
[37] Mr, Bosman
[38] Mr. Bosman

mainly by bureaucracy and political wrangling. Given the divided history of the industry and the fact that the overwhelming share of ownership of resources is still located in the hands of white people, it is not surprising that most of the debates have been around issues of representivity, legitimacy and inclusiveness. At the moment there are a number of unions as well as non-governmental organisations and other interest groups claiming to represent the interests of workers in the industry and many of these have argued for a seat within the structures of the SAWB (now SAWIC). The need to placate all these different interests and come to some sort of arrangement which will be acceptable to all, is a very time-consuming process.

However, when a formal blueprint for training and human resource development has eventually been put in place, the challenge to translate this into concrete training initiatives at farm, cellar and other levels of the industry still remain. Here, existing training networks become of significant importance to get training to workers. The role of the SAWB is to act as a mouthpiece on behalf of the industry and to put the necessary institutional framework for training in place[39]. Beyond this, there is still for training to be made more accessible to workers and employers, be this at farm, cellar or wholesaler level. Regionally based training initiatives and institutions could prove particularly effective in this regard by offering employers a central space where they could send their workers for training. These could also act as support structures for employers, acting as intermediaries between broader industry structures and those at farm level.

4. Skill Needs of the South African Wine Industry

Leiboldt (2001), as part of the investigation into the human resources needs of the South African wine industry, compiled a profile of the types and numbers of workers and skills needed in the wine industry to improve global competitiveness. This profile is based on comparisons with international benchmarks provided by the United States and Australia.

The following table contain excerpts of some of the most important categories.

[39] Mr. Bosman

Table 7 : Human Resource Needs of the South African Wine Industry

Job Categories	**Quantity Needed**	**Numbers Currently employed**
Managers		
Executive Leaders (CEOs: Board)	20	5
General Managers	100	
Marketing Experts		
Marketing Managers	30	5
Assistant Marketing Managers	100	20
Research and Development Experts	20	7
Development Staff	100	25
Packaging Managers and Experts	20	6
Packaging and Bottling Staff	150	75
Wine-Making Experts		
Cellar Manager	250-300	
Cellar Engineer	50-100	
Winemaker (Full)	300-400 (full)	150-200
Assistant Winemaker	150-200 (assist)	75-100
Specialised Cellar Worker		
Vineyard and Viticulture		
Farm Manager	2000	
Viticulturists	40-50	20-25
Soil Experts and Specialised Support Services	25	
Vineyard Worker (Trained)	20 000	
Related Wine Industry Cluster		[40]
Tourism	300	
Food	200	
Health	20	

[40] Where there are gaps, the Leiboldt report does not provide any figures for these categories.

General Education (planners/managers)	30	
Producers	4500 (most current producers in SA require basic business skills upgrading and industry knowledge)	
Workers/Basic Craftspeople	25 000 (current balance of basic workers in the wine industry: all require development of sustainable skills).	
Educators (wine industry)	25 at tertiary level (including upgrading and multi-skilling, industry knowledge, IT skills and developing NQF requirements) 100 other (including informal)	

Table Adapted from Leiboldt (2001) "South African Human Resource Needs for Global Competitiveness in the Wine Industry"

From the above table it is clear that South Africa is still considerably lagging behind international benchmarks in terms of human resources competencies required for international competitiveness. Leiboldt's analysis is however not without criticism. Firstly the report neglects to discuss in detail how the above "benchmarks" (the 20 000 trained vineyard workers for example) were arrived at. Secondly, the report lacks a dynamic perspective. It fails to take into consideration that the wine industry is constantly changing and does not discuss the skills needs of the industry in relation to the fact that the industry is still expanding. Thirdly it mentions that what is needed is for the skills of farm workers to be "upgraded". However, it does not explain exactly what is meant by this upgrading and who is supposed to be responsible for this upgrading of farm worker skills. At the moment it is not clear whether the current training and skills development environment in the wine industry is geared towards delivering the abovementioned skills required.

5. The Skills Development and Training Environment in the South African Wine Industry

5.1. What the Experts Say

The closure of the Kromme Rhee training institution has left a great institutional vacuum as far as training is concerned. Although initiatives are emerging, these are largely fragmented. Many industry experts have commented on the need for a coordinated, institutional framework for training and skills development in the industry. According to Mr. Okkie Bosman of the SAWIC the South African wine industry is very fragmented at the moment, there is no common training programme for cellars, traders, wholesalers and no common objectives for training. He feels that the different role-players, employers, levels and wine-making regions in the industry should be integrated and that a strategy should be developed for the industry which will cover the whole value chain. According to Michael Fridjohn, former chairperson of the South African Wine Industry Trust "although good wines are made in the vineyard, the training of vineyard workers in the wine industry has never received the kind of attention and priority it really deserves and although consultants and independent service providers attempt to address the training needs of vineyard workers, training provided at this stage is fragmented and does not address the holistic needs of the workers". These views are also echoed by a number of human resource and training experts interviewed during the course of this study.

Mr. Charles Theron[41], an accredited trainer in the wine industry, feels that training at the lower level is crucial in the industry, but that this training is often hampered by a lack of accredited training providers. Other impediments include the illiteracy of the workforce and a language barrier as a growing number of Xhosa-speaking workers are employed in the industry and the majority of the trainers do not speak the language. According to Mr. Theron, the training which does occur in the industry occurs mostly on an ad hoc basis. Ms. Magda Vorster[42], human resource manager at a prominent private cellar, feels that although training initiatives are emerging in the wine industry, these occur in a mostly unsystematic, uncoordinated fashion. She also feels that there are too many institutions/structures in the industry, all with different agendas and what is needed is a central body which will coordinate training and skills development.

[41] Interview conducted in February 2004
[42] Interview on the 25th of March 2004

5.2. Training Initiatives and Training Institutions in the Industry

5.2.1. What the AgriSETA Offers Wine Farmers

The Sector Education and Training Authority (SETA) responsible for facilitating and monitoring skills development and training in the wine industry is the Agricultural Sector Education and Training Authority (AgriSETA). A few wine producers, mostly cellars are registered with the Food and Beverage SETA. The AgriSETA is the result of a merger between the Primary Agriculture Education and Training Authority (PAETA) and the Secondary Agriculture Education and Training Authority (SAETA) in 2005. The AgriSETA is going to great lengths to facilitate and make education and training in the sector as pain free as possible. Between 2005 and March 2007 for example the AgriSETA ran a programme called the "Free or Mahalla" project where additional funds were put into pool and employers could apply for funds to conduct learnerships, short courses as well as Adult Basic Education and Training (ABET) courses. "

The Free or Mahala programme was completed at the end of March 2007. At the moment 45 000 commercial farmers are registered with the AgriSETA. Of these 3500 are currently paying the skills levy and the AgriSETA collects approximatley R128 million in skills levies. Forty-five million of this is available for 'discretionary funds'. Discretionary funds are funds which are used for training courses including learnerships, short courses and Adult Basic Education and Training courses. Discretionary funds are not linked to the submission of skills plans or annual training reports. This means that even employers who do not pay the skills levy are eligible to apply for these funds. According to Mr. Engelbrecht[43], skills manager at the AgriSETA, as a SETA they have a responsibility towards the whole sector and not only to levy payers, but levy payers do receive preference. Those employers who pay their levy and submit a Skills Plan as well as an Annual Training Report are eligible to claim up to 50% of their levy back. This is referred to as the 'mandatory' grant. The AgriSETa has made an effort to simplify the process of claiming the levy back and has for example consolidated the workplace skills plans and the annual training report into one document. This means that complaints of the "bureacratic nature" of the process which could act as a disincentive for employers to claim back the levy might not be true in the case of the AgriSETA., Approximately 1350 of the employers who are currently registered with the SETA submitted skills plans and annual training reports in 2006 and thus

[43] Personal Communication on the 4th of June 2007

claimed back the mandatory grant. These are mostly bigger employers. According to Mr. Engelbrecht it is not really worthwhile for smaller companies[44] to claim back the levy as their levy contribution is so small that it is not worth the effort for them to submit a skills plan and the annual training report. The majority of them thus write the levy off as a tax.

There is a great demand for skills training from employers, yet the SETA is unable to accommodate all requests. In 2007 the SETA received six thousand applications for learnerships, yet the SETA only has funds for five hundred learnerships. Similarly they have received sixty thousand requests for short courses, yet the SETA can only fund nine hundred of these.

5.2.2. Other Training Opportunities in the Industry

There are currently a number of institutions in the wine industry responsible for supporting and coordinating education and training. The South African Wine Industry Trust (SAWIT) was established in 1999, following the transformation of of KWV from a co-operative to a private company. KWV agreed to provide R375 million over a period of ten years for the operation of the SAWIT. SAWIT in turn established three Section 21 companies, BUSCO, DEVCO and the Wine Education Fund (WEF). DEVCO and WEF are the empowerment arms of SAWIT[45]. DEVCO is responsible for opening up the wine industry to previously disadvantaged people through skills transfer, education and by assisting new grower entrants with the marketing of wine products and access to related extension services. The Wine Education Fund assists previously disadvantaged individuals to obtain formal qualifications in viticulture and oenology by providing them with bursaries to study BSc Agric degrees in Viticulture and Oenology at Stellenbosch University. The Fund also sponsors wine industry workers' participation in various exchange programmes with other wine producing countries.

The training institutions responsible for training workers in the wine industry at present are the Elgin Community College, Elsenburg Agricultural College, Stellenbosch University and the Vineyard Academy. Stellenbosch University and Elsenburg Agricultural College offer Higher Education and Training (HET) programmes in Soil Science, Agricultural Economics, Plant Pathology, etc. Elsenburg Agricultural College also offers a Further Education and Training

[44] In terms of national skills development legislation, companies with an annual payroll of less than R500 000 are not expected to pay the levy. Smaller companies in this case would be those who are just over the R500 000 threshold.

[45] http://www.nlsa.ac.za/vine/empowerment.html

Programme (FET) which includes its SKHOP (Sekondêre Kelder Hulp Opleidingskursus)[46]. There is very little coordination[47] between these different institutions in terms of training provided, except for agreement on different unit standards which determine the standard of training provided. All these institutions have to ensure that the programmes and education material they develop and use are in line with the unit standards developed for the industry[48]. Other training courses include those offered by private trainers like Mr. Theron for example who offers custom-made cellar courses to cellars requesting training. These courses for example include modules such as wine tasting for cellar workers. Workers are also taught about the importance of customer demands and behaviour and the role that they play in the wine value chain. As many of the course participants are illiterate, the course material includes a lot of visual materials. These courses aim to instill an understanding amongst course participants of the importance of knowing why they perform a particular task in a specific way and the significance of their work in terms of satisfying customer demands for quality, ethically produced goods[49]. Courses are presented to a maximum of 15 workers at a time and workers receive an attendance certificate. The long term goal is however to present workers with an accredited qualification on completion on the course. At the time of the interview in February 2005, these courses had been offered at only five cellars.

Other training courses include those offered by Mr. Gerrie Alberts, a freelance trainer who is commissioned by the Vineyard Academy to offer training requested by farms. Three types of courses are offered, a short course, a learnership programme and a total spectrum course[50]. The short course is a crash course which is offered to a maximum of 20 workers over a 2 day period and covers practical vineyard skills such as pruning, suckering, etc. Half a morning is dedicated to theoretical instruction and one and a half days to practical application in the vineyard. This short course is also open to seasonal and contract workers. The learnership programme is a longer programme and covers modules such HIV/AIDS, personal banking, etc. and only 5% of the programme is devoted to agriculture. Participants receive an accredited certificate on completion of this course which gives them entry to further study at Elsenburg College for example should they wish to do so. The total spectrum course covers the entire spectrum of what it entails to manage a successful wine farm and is funded by SAWIT. The aim of this course is to

46 Vink, N (2007) Internal Examiner of thesis
47 According to Mr. Henry Horne in an interview of 03 March 2003
48 Interview with Mr. Henry Horne, chairperson of the Vineyard Academy, 03 March 2003
49 Interview with Mr. Charles Theron, 24th February 2004
50 Interview on the 23rd of February 2004

educate a worker to eventually become a wine farmer. The total spectrum course covers the following 15 modules:

- Physiology of the vine
- Choice of area / terroir
- Choice of cultivar and rootstock
- Soil and the preparation thereof
- Growing techniques
- Practical planning of the vineyard
- Trellising
- Vine development
- Pruning Systems e.g. (different pruning methods for example table grapes)
- Summer Canopy-management e.g. correct suckering
- Irrigation
- Weed control
- Use of Fertilizers
- Harvesting and Grapes
- Pest- and disease control

At the time of this interview this total spectrum course had only been presented to two empowerment projects at Lutzville and Fairvalley. Participants have to write tests and a formal examination and receive a certificate on successful completion of the course. All three courses cater to the needs of illiterate workers through the extensive use of visual materials such as drawing and transparencies. Illiterate participants who do the total spectrum course can complete an oral examination. All learning material conforms to the standards set by the South African Qualifications Authority and learning materials are constantly updated and adjusted.

The above examples show that training does indeed occur and detailed and well-structured courses and course material have already been developed. However, this training occurs on an ad hoc basis and in many instances depends on the initiative of individual farmers or cellars that have to request training. These training programmes occur in a loose and uncoordinated manner with the backing and support of different industry institutions, sometimes AgriSETA, sometimes SAWIT and sometimes the Vineyard Academy. What is needed is tighter cooperation and coordination between these different institutions with a central body driving and monitoring

training in the wine industry. This would ensure that training happens in an organized, structured fashion and are closely aligned with the goals and strategies of the Wine Industry Strategic Plan and other efforts in the wine industry.

5.2.3. The Vineyard Academy

The Vineyard Academy is currently the primary institution responsible for the training of vineyard workers. The Vineyard Academy (VA) was established in 2001 as a joint venture between Afrika Vineyards Farming Operations (a subsidiary of the brands division of Spier Winecorp) and DEVCO and is responsible for "facilitating and co-coordinating a structured approach to providing accredited technical and life skills training to vineyard workers in the Cape Winelands". Although the VA focuses specifically on vineyard workers, they do also offer courses in cellar technology, because many vineyard workers also work in the cellar. The VA offer technical courses, for example courses dealing with the physiology of the plant, establishing a vineyard, vineyard practices such as trellising, pruning and canopy management, irrigation, vine nutrition, fertilization and harvesting. The VA also offer life skills courses. Some of the modules include

- Self esteem development
- Work Ethic
- HIV/Aids
- The Responsible use of alcohol
- Business Management – the functioning of the farm as a business unit
- Managing Personal Finances[51]

According to Mr. Henry Horne, the person appointed to develop and manage the VA, the VA's emphasis is on "Reflexive Knowledge". The VA aims to equip workers with the ability to make decisions. The focus is thus on "education and training', not only training. The goal is to establish a trained and educated individual who understands different processes and is in a position to make informed decisions.

The Vineyard Academy works within the framework of the National Qualifications Framework (NQF). The VA registered in 2001 with the Sector Education and Training Authority (SETA) for Agriculture, the AgriSETA. The VA thus ensures that the training it provides complies with the

[51] Interview with Mr. Henry Horne, chairperson of the Vineyard Academy, 03 March 2003

conditions laid down by the South African Qualifications Authority. The VA does not conduct training itself, but employs the services of accredited service providers, like viticulturists, on a contract basis to conduct training. Most of the training conducted by the training providers contracted by the Vineyard Academy happens on the farms which request training. Individual farms are supposed to approach the Vineyard Academy for training, but according to Mr. Horne, most of the initiative still comes from the VA. In only 30% of cases do employers approach the VA to request training for their workers[52]. Courses offered by the VA come at a daily rate of R300 per worker and are offered to between five and 20 workers at a time[53].

5.2.4. Learnerships in the Wine Industry

The Vineyard Academy, along with a few other institutions, is also responsible for offering learnerships in the wine industry. The other institutions offering learnerships are Elgin Community College, Elsenburg Agricultural College, Cape Women's Forum and the Koue Bokkeveld Training Centre in Ceres. Learnerships are registered by the AgriSETA. In order to qualify for a NQF level 1, farm workers must have completed Grade 9 or Standard 7. However, any farm worker can register for a learnership, even those who do not qualify for NQF level 1, as long as he/she is able to read or write and have basic arithmetic skills. Those who are illiterate have to undergo and complete an intensive Adult Basic Education and Training course in order to be allowed to register for a learnership.

Each learnership consists of 3 streams, Fundamentals, Core and Elective streams and each "stream" consists of a number of modules. For example the modules which make up the "Fundamentals" stream are concerned with imparting communication and language skills and mathematical skills. The "Core" stream consists of modules relating to generic skills required in a specific industry, for example agriculture. These skills include management and economic sciences, human and social sciences, applied agriculture and agricultural technology. The modules in the Elective Stream are concerned with life skills, for example HIV/AIDS education, the responsible use of alcohol, managing personal finances, but also modules geared specifically to the wine industry, for example pruning. Each module is made up of a number of credits and each credit amounts to 10 hours of training. This training includes practical training. Normal

[52] Interview with Mr. Henry Horne, chairperson of the Vineyard Academy, 03 March 2003
[53] "Training is the key to good wines". www.news24.com

working hours also constitute practical training.

Each learnership amounts to between 21-30 weeks of tuition, depending on which electives were chosen. On completion of a learnership, learners receive a National Certificate in Agriculture. Skills acquired in a learnership are transferable between different agricultural sectors, for example between horticulture and agronomy. Currently 60 learnerships have been registered with the Vineyard Academy (most of these were on initiative from the VA). A further 60 have been registered with Elgin Community College, 20 with Elsenburg Agricultural College, 30 with the Koue Bokkeveld Training Centre and 25 with the Cape Women's Forum.

The tuition fees per learnership are between R5250 – R7500 per NQF level, but employers who register with the AgriSETA are exempt from paying. The AgriSETA will also pay for the learnership, irrespective of whether or not employers have paid their skills levies. In addition, employers also qualify for a R25 000 tax break upon registering a learnership and a further R25 000 upon the successful completion of the learnership.

It is clear that there are initiatives and structures in place to advance education and training in the wine industry. The challenge is to make sure that this takes place in a coordinated fashion and that the word gets out to producers and other employers in the industry. The successful implementation of education and training initiatives in the wine industry also requires a culture shift amongst producers in which the importance and benefits of training for both the business and the employees are acknowledged. What is also needed is administrative and other support to those who have committed themselves to the improvement of their employees' skills to fulfill all the bureaucratic requirements. Institutions like the Vineyard Academy and the AGRISETA will pay a crucial role in this regard. The South African Wine Industry Council, a central coordinating body in the wine industry, also has a crucial role to play in putting the institutional framework for training and human resource development in the industry in place.

6. Conclusion

The wine industry is in many ways a microcosm of the broader skills development environment. International competitiveness and quality wine production have become crucially important to wine producers struggling to survive in an environment of deregulation and global restructuring.

However, a study conducted on behalf of Winetech's Vision 2020 programme into the human resources needs of the South African wine industry has shown that South Africa is lagging behind most wine producing countries and especially one of its biggest competitors, Australia, in terms of the skills needed for international competitiveness. Although many skills development initiatives have emerged in recent times, these are to a large extent still very uncoordinated and fragmented. At the same time, the culture shift referred to earlier is also still waiting to happen amongst the majority of South African wine producers.

Chapter 6: Methods of Research

1. Introduction

The global agricultural industry has undergone significant restructuring over the last decade. Countries, especially those in the developing world, have been called upon to deregulate their agricultural industries and to "open" up their economies in order to facilitate the trade in agricultural produce. However, at the same time the last few years have seen an increase in regulation by institutions such as the World Trade Organisation and big supermarkets in the North. This has resulted in what many theorists call a parallel trend of deregulation and re-regulation in the global agricultural trade. This re-regulation has come in the form of a myriad of codes and standards imposed by private organisations on producers. Producers have to meet these standards in order to dispose of their agricultural produce on the world market. The concept of "quality" is central to the whole re-regulation debate. Quality is defined as "the specific attributes of the food or commodity itself such as safety, nutritional content, label, production processes, or branding which are emphasized and regulated" (Watts and Goodman, 1997: 5).

However, theorists have argued that the quality issue should be debunked. Retailers are active agents in the "construction" of the dimensions of quality and the creation and maintenance of the demand for quality foods, thereby ensuring their dominance over the supply of main food products (Marsden, 1997: 172). Whatever the case, the quality discourse is certainly starting to take root in the global wine industry and South African wine producers are now actively striving to improve the quality of their wine in order to compete successfully on the world market. There is a growing awareness amongst industry players that in order to produce quality wine and carve a niche for oneself on the world wine market, producers need to be at the cutting edge of technology and innovation. A skilled labour force has been identified as one of the crucial components of the South African wine industry's quest to produce quality wine and become more internationally competitive (Leibold, 2001). In this regard, the aim of this study is to investigate how the quality and skills debate plays itself out at different levels of the South African wine industry. In particular the study wanted to find out how the South African wine industry is adapting to new vineyard practices necessary for quality production, especially as far as training of vineyard workers is concerned.

2. Problem Statement and Focus

Given the current situation on the worldwide wine market which is forcing producers to move out of the basic wine category into premium and up, the study was interested in finding out how producers are responding to these challenges. In order to produce better quality wine and move into higher price categories producers need to change their vineyard practises, for example employing correct pruning methods. The relationship between skills and quality production is a contentious one. Methodologically speaking, it is impossible to isolate the effect of skills on quality wine production as other variables e.g. technology, terroir, long-term practices and oenology, etc. also come into play. However, all things being equal, the assumption is made that better skills lead to better quality wine.

The study thus focussed on four broad questions:

1) How are farms that are members of a co-operative, private cellars and estates responding to the demand for quality production?
2) What vineyard practises and skills are required for quality production?
3) How do these practices and skills get diffused and transferred to workers?
4) Is there a difference between co-operative cellars, private cellars and estates with regards to the training of workers in these new skills and practises?

In order to answer these questions it was decided to focus on different kinds of producers, i.e. co-operative cellars, private cellars and estates. The research also compares these different kinds of producers across different wine areas. The research covered two of the main wine-producing areas, namely Paarl and the Robertson area.

The primary site for the research was co-operative wine cellars, private wine cellars and estates. The overall research sample consisted of two co-operative wine cellars, one in the Robertson area and one in the Paarl area; and two private cellars, one in the Robertson area and one in the Paarl area as well as two estates, one in each of the two areas. At each of the co-operative wine cellars background interviews were first conducted with the manager and viticulturist of the cellar to discuss the research project and to get a sense of the history, strategic objectives, payment system and vineyard practices/guidelines at the cellar. Once the cooperation of the manager, viticulturist and board of the cellar had been obtained and members gave the go-ahead for the research, a research plan was drawn up with the assistance of the viticulturist.

3. Selection of the Co-operative Cellars, Private Cellars and Estates

Prior to the selection of the co-operative cellars and private cellars a detailed background scan of each of the research regions (Paarl and Robertson) was conducted. This included consultation of secondary resources, for example wine guides like the John Platter guide, the wine and tourism offices and internet sites of each area as well as newspaper articles. This was done in order to build up a profile of each area, the co-operative cellars, private estates and private cellars and the main role-players in each area. Background interviews were also conducted with some of these main role-players like the chief executive officer of Paarl Vintners and representatives of the Breëriver Rural Development Association, a broad-based development organization operating in the Robertson area. Once all this information had been collected and a profile of each wine-producing area had been compiled, co-operative wine cellars and private cellars were approached for participation in the research study. Purposive sampling (Patton, 1990) was employed in this study where each participating farm was selected based on specific criteria. The idea was to select a co-operative cellar in each area which had undergone some level of restructuring in terms of their production, vineyard practices, marketing and sales of wine. The co-operative cellar in Paarl was selected on the basis of an earlier study of co-operative cellars which identified it as a co-operative which was still producing the majority of its wine in bulk and was grappling with the issue of quality production and skills development (Martin, 2001).

In Robertson a co-operative which apparently had managed to successfully adapt to the demands for quality production was initially selected for participation. This cellar however, had recently changed its status to that of a private cellar and it was decided to approach another co-operative. A co-operative cellar in Robertson which at the time made news headlines, because it had won the coveted General Smuts' trophy for the Grand Champion wine of South Africa and was making some interesting changes with regards to their vineyard practices, was approached for participation in the study. This particular co-operative agreed to participate.

It was decided to focus on a specific cultivar in each area. This was because the study sought to compare vineyard practices with regards to a particular cultivar as vineyard practices differ for different cultivars. At the co-operative in Paarl, Shiraz was selected and at the co-operative in Robertson it was decided to focus on Chardonnay. The reason for the selection of these two

cultivars is that at each of the co-operatives that particular cultivar is viewed as a “lead” cultivar. These cultivars play a pivotal role in the future strategy of each co-operative as it is believed that they will generate the most income for the co-operative in future. The plan was to include all those member farms who grow this specific cultivar and who were willing to participate in the sample. Care was taken to remind interviewees, both management and worker interviewees, that the questions regarding vineyard practices were related specifically to that particular cultivar, Shiraz in the case of Paarl and Chardonnay in the case of Robertson. Research at the co-operatives was carried out by a research team consisting of five researchers. Researchers were given specific instructions to remind interviewees every time that the questions pertained to vineyard practices specifically for either shiraz of chardonnay.

As far as the private cellars are concerned the idea was to do a comparative analysis of four private cellars, two in Robertson and two in Paarl. It would have been more useful to compare two cellars which are doing well commercially with two which are not doing so well. However it proved rather more difficult to get a sense of which private cellars were doing well commercially and those which were not doing so well as the financial records of private cellars are not publicly available. Contacts in the industry with whom the researcher had already established a relationship, were also not prepared to give their views on the commercial performance of private cellars in the industry.

It was then decided to approach secondary sources like the John Platter Wine Guide, other wine literature as well as the websites of individual private cellars to get a sense of the business activities of the cellar, the ratings their wines received and whether or not the cellar had undergone any significant restructuring in the last two years, for example expansion of its cellar capacity, planting of new cultivars, etc. On the basis of this, four private cellars and two estates were approached to participate in the study. Two of the private cellars and both the estates agreed to participate. Two other private cellars declined. The selection of the private cellars and the private estates was to a great extent determined by access. The estates which participated in this study are not representative of estates in the broader wine industry in the sense that they are lagging behind in terms of quality wine production. However, this is largely a function of the sample. If different estates were included, the results may have been different.
The co-operatives, private cellars and estates were thus included in the study on the basis of whether or not they agreed to participate.

4. Data-Collection Process

4.1. Background Interviews

Prior to the commencement of the data collection at the co-operative cellars and private cellars in Robertson and Paarl, a number of interviews were conducted with wine makers, skills trainers and facilitators and other industry experts. This was done to gain a better understanding of the South African wine industry as well as the major issues and debates as far as quality production and human resources development and training are concerned. These background interviews would be utilized to develop a response to one of the fundamental questions of the research, namely what vineyard practices and skills are required for quality production?

Interviews were conducted with fourteen wine-makers in the Western Cape. The aim of these interviews was to get their perspective on:

- what exactly constitutes a "quality" wine?
- how does one distinguish between a "good" quality and a "poor" quality wine?
- how is a good quality wine achieved?
- how important is skills development and training in the achievement of good quality wine?
- and which skills are particularly important for the attainment of good quality wine?

Interviews were also conducted with two independent skills trainers in the wine industry, a representative from the Vineyard Academy and the human resource manager of a private cellar in the Western Cape to get their expert opinions on the importance of skills development and training for the production of better quality wine. Other background interviews include those conducted with Prof. Eben Archer, a well-known professor in viticulture and wine industry expert as well as those conducted with representatives from Wines of South Africa and the South African Wine and Brandy Company (see chapter five).

4.2. The Co-operative Wine Cellars

At the co-operative in Paarl, the focus was on all those members who grew Shiraz on their farm. A total of ten out of 15 Shiraz farmers agreed to participate in the research. The other five, for reasons not known, declined to participate in the research. At the co-operative wine cellar in Robertson, the chardonnay farmers were approached. The response from member farmers at the Robertson co-operative was more enthusiastic and a total of 16 chardonnay growers agreed to participate in the research. Each sample at both of the co-operatives included a cross-section of farmers; those who manage to sell their grapes in the top price category and those in the lower categories.

At each co-operative farm, interviews were conducted with either the farm owner or farm manager as well as a number of permanent workers. On average, 3 workers were interviewed per farm. Interviews were conducted on the basis of a questionnaire. In hindsight, the interviews could have been supplemented with observation in the vineyard to see whether workers were indeed following instructions regarding the execution of certain vineyard practices given to them by management. The researcher's initial lack of technical expertise in the area of viticulture was however an obstacle in this regard.

Two types of questionnaires (see appendixes) were used, one specifically designed for management and one for workers. The management questionnaire dealt with the following topics:

- Biographical data of the respondent
- General information about the farm i.e. size, products farmed, % of farm business dedicated to grape growing, etc.
- Respondent's perception of quality wine and how it is achieved
- Vineyard practices, both long term and short term practices
- Most important sources of information regarding new vineyard practices
- Training
- Cellar Networks
- Perceptions of the strategy of the cellar

The topics for the worker questionnaire were as follows:

- Biographical data of the respondent
- Vineyard practices, both long term and short term practices
- Training, e.g. whether or not they had received any external training (training from an individual other than the farm owner/manager) over the last five years
- Training aspirations e.g. which training they would like to receive in future and how difficult or easy it would be to access such training
- Quality awareness e.g. whether they knew into which class the chardonnay or shiraz grapes were classified and in the case of private cellars, whether workers knew if the shiraz or chardonnay wines had won any prizes (in the case of the private cellars and estates[54])

Management was asked very specific questions regarding vineyard practices for the particular cultivar in question. The same questions were repeated in the workers' questionnaire. This was done to establish the type of instructions given to workers regarding specific vineyard practices e.g. pruning, suckering, crop control, etc. and whether or not workers understood and followed these instructions. An analysis was done of the overlap between management's instructions to workers regarding specific vineyard practices and workers' understanding of these instructions. For example if the answers of all four workers interviewed on a particular farm were identical to those of the owner/manager of that particular farm this would translate into a 100% overlap, if only three of the four workers who were interviewed' answers were identical to those of the owner/manager this would translate into a 75% overlap.
The questionnaires were piloted on two farms. The questions were refined and the questionnaires were adapted after the first few interviews.

4.3 Private Cellars and Estates

The first step in the research process at the private cellars and estates, once they agreed to participate, was to get a sense of the profile of the workforce. In order to do this, either the human resource manager or the viticulturist at each cellar was approached to establish how many workers were employed in each category, i.e.

[54] Workers at the co-operative farms were asked whether they knew what grade the grapes attained at the cellar

- permanent vs. casual workers[55],
- male vs. female workers and
- general vs. specialist workers (supervisors, tractor drivers, irrigation workers).

Once the profile of the workforce had been established, the sample was structured in such a way as to include workers from each of the above categories. This was done in order to get the views of as wide a spectrum of the workforce as possible.

Cellar A has thirty-four permanent workers. Of these, ten are general workers, six are supervisors, ten are tractor drivers, seven are irrigation workers and one is a gardener. Interviews were conducted with a total of eleven workers at Cellar A. The sample was structured as follows:
3 = general workers (all female)
3 = tractor drivers (2 females and 1 male)
3 = irrigation workers (3 males)
2 = supervisors (1 female and 1 male)

Cellar B has a workforce that consists of seventeen permanent workers and forty casual workers, the majority of whom are female. Unlike Cellar A, Cellar B does not have a job category system. Most of the workers are considered 'general workers', although some also perform more specialised duties such as irrigation and pest control. The plan was initially to interview 11 workers at Cellar B, five permanent workers and six seasonal workers. Unfortunately on the day, only seven workers were willing to be interviewed, the rest refused. During one of the interviews it emerged that one of the reasons for workers' refusal to participate was that they were upset, because management had decided that there would be no pay increases this year. Workers had reportedly informed one of those interviewed by the researcher that they would only participate if they were paid. This offer was not taken up by the researcher. The seven workers who did participate were:
3 = permanent workers (all male)
4 = casual workers (all female)

Estate A is a smaller estate in the Paarl area. It has a very small permanent workforce and employs mostly contract workers during the harvesting season as well as for tasks such as

[55] For the purpose of the study casuals were divided into two categories: those recruited by the cellar and those recruited through an independent labour contractor

pruning and suckering. It has eight permanent workers, two of whom are men and six are women. The women are all general workers and one male is a tractor driver, responsible for pest control and the other male is a supervisor. The estate makes use of a team of sixty contract workers, the pruning team consists of forty workers and the suckering team consists of twenty. The researcher wanted to include some of the contract workers in the sample. However this was impossible as they are all Xhosa-speaking and the researcher does not speak the language. They also work on a piece-rate system and the viticulturist felt that they would not give up forty minutes of their time to be interviewed. Interviews were eventually conducted with five of the eight permanent workers:

1 = supervisor (male)

Estate B is a family-owned estate, situated in the Robertson area. It has a large permanent workforce of fifty seven, forty nine of whom are vineyard workers and eight are cellar workers. Of the forty nine vineyard workers, two are supervisors, six are tractor drivers and four are irrigation workers. Interviews were conducted with seven workers, three women and four men. Their job categories are as follows:

1 = supervisor (male)

1 = tractor driver (male)

1 = irrigation worker (male)

4 = general workers (1 male and 3 women)

In-depth interviews were also conducted with the viticulturist or vineyard manager at each of the two cellars and estates. These interviews lasted about one and a half hours and the interviews conducted with the workers lasted approximately 40 minutes. The questionnaire used was similar to that used for the interviews at the co-operative cellar. The management questionnaire was slightly adjusted to include questions specifically related to the cellar as a business unit, i.e.

- the volumes of wine produced and exported over the last two years,
- the percentage breakdown of white and red wine produced
- the price categories in which the cellar's wine is sold etc.
- the cellar/estates' main export markets

A total of thirty interviews were conducted with farm owner/managers and viticulturists at the co-operative farms, private cellars and estates. Interviews were also conducted with one hundred and five workers at the co-operative farms, private cellars and estates.

5. Conclusion

The central theme of this research is to see if and how the quest for quality production has translated into vineyard practices at farm level in the South African wine industry. Futhermore, the study aims to establish how knowledge and skills required for quality production are diffused to vineyard workers at farm level. To this end, the research included different layers, from co-operative to estate level, and different wine-growing areas. Although the results of this study are not meant to be generalised to the whole of the South African industry, the case studies do provide an interesting and useful glimpse into the response to the demand for quality production and the state of skills development and training at different levels of the industry.

Chapter 7: Training Situation on Farms that are Members of a Co-operative– Analysis and Interpretation of Data

1. Introduction

This chapter will present the data collected at the two co-operative cellars, one in Robertson and one in Paarl. Two case studies will be presented of the co-operatives, detailing their history, structure and business philosophies and practices. The data collected at the various co-operative farms through in-depth interviews with workers and farm/owners and managers will then be presented and discussed. The chapter will however, first present a short regional profile of Robertson and Paarl as a means of contextualising the research and data collected.

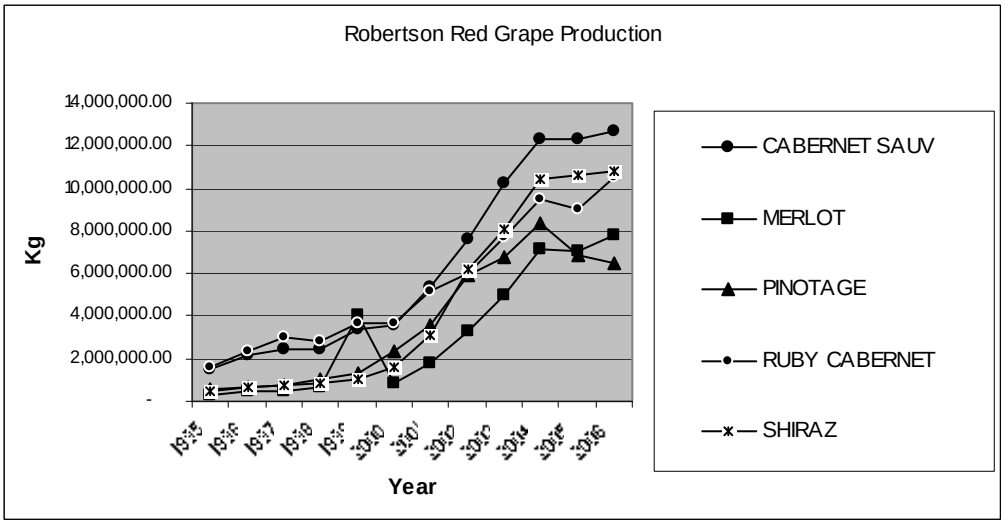
2. Robertson and Paarl Regional Profiles

2.1. Robertson

Overview

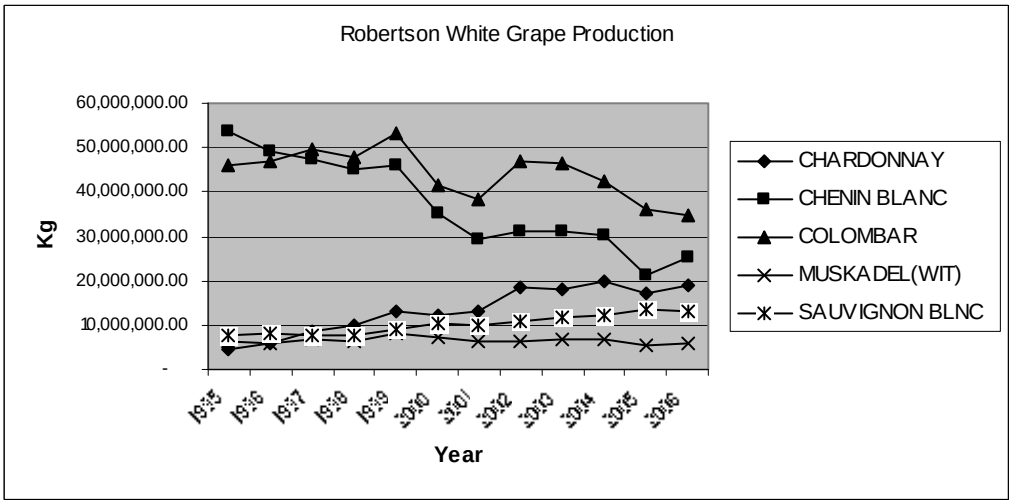
Robertson was traditionally a brandy producing area and only started focusing on wine production in the early nineties. The area has made significant strides in improving the quality of its wine, and is well-known for the quality of its white wine, sauvignon blanc in particular. Robertson has also during the last decade focused on increasing its production of red wine cultivars in line with international demands. Figure 7 shows the top five red wine cultivars in terms of production and show how the production of these cultivars have steadily increased since 1995. This growth is especially impressive between 2000 and 2004. As far as white grapes are concerned, there has been a decrease in the production of 'traditional' white cultivars like chenin blanc, colombar and muscadel, whereas production of the 'noble" cultivars chardonnay and sauvignon blanc is increasing steadily (see figure 8). This again shows that producers in Robertson are working towards bringing their production in line with international trends.

Figure 7: Red Grape Production in Robertson 1995-2006



Source: SAWIS

Figure 8: White Grape Production in Robertson 1995 – 2006



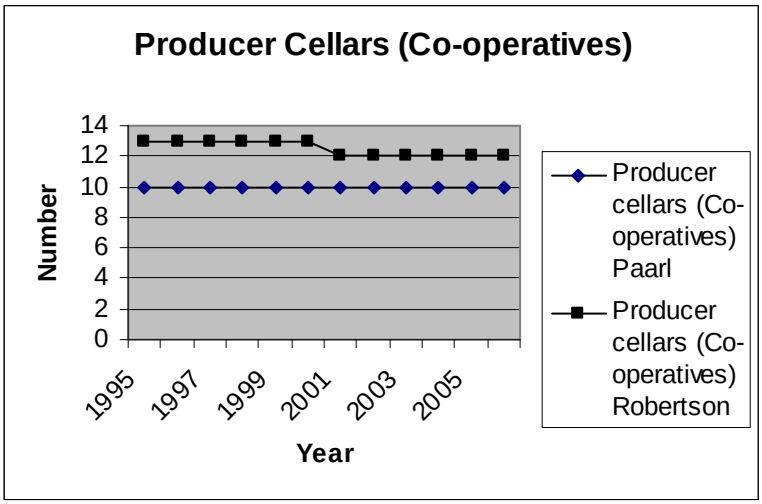
Source: SAWIS

The body responsible for marketing the Robertson area and representing wine-growers and wine-makers in the district is called the Robertson Wine Valley. The Robertson Wine Valley was established in 1983 and was previously known as the Robertson Wine Trust. The body represents 32 members, which include 11 co-operatives, 14 estates and 7 private producers. The Robertson Wine Valley includes the Ashton, Bonnievale, McGregor and Robertson districts.

The structure of the industry in terms of the number of co-operatives and private cellars and estates has not changed much over the last eleven years. The number of co-operatives in both Robertson and Paarl have remained constant, except for a slight decrease in Robertson from

thirteen to twelve between 2000 and 2001 (see figure 9).

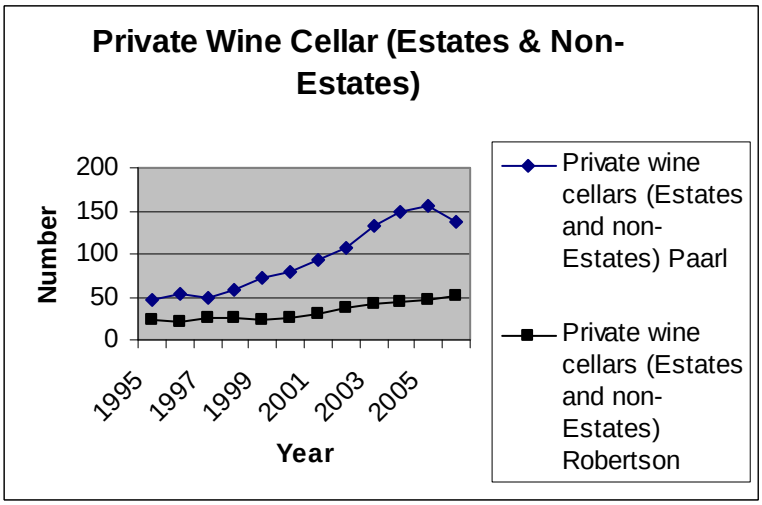
Figure 9: Number of Co-operatives in Paarl and Robertson



Source: SAWIS

The number of private cellars (estates and non-estates[56]) have been increasing steadily between 1995 and 2001 in both regions (see figure 10). This growth has been greater in Paarl than in Robertson, although the number of private cellars in Paarl did decrease from 156 to 137 between 2005 and 2006.

Figure 10: Number of Private Cellars (Estates and Non-estates) in Paarl and Robertson



Source: SAWIS

[56] SAWIS data does not provide a breakdown between private cellars and private estates.

Terroir

The region is endowed with an abundance of soils and a diversity of climates which provides growers and wine makers with a host of opportunities to match different terroir sites to specific cultivars in order to produce unique wines. It seems that the growers and wine makers in the region are fully aware of this fact and are making every effort to exploit the natural potential of the region.

According to Robertson Winery "in this sought-after wine producing region, a variety of meso-climates and soil conditions create a wide spectrum of terroirs, allowing us to produce an exciting diversity of wine styles. The rich soils on the riverbanks are deep and cool and thus ideal for the growing of choice Sauvignon Blanc grapes. On the lower mountain slopes, the shale and sandstone soils are rich in lime with a high pH, making these sites perfect for the cultivation of Shiraz and Cabernet Sauvignon. Higher up against the mountains, the gravelly soils with clay fractions are reserved for early ripening cultivars such as Chardonnay. The low annual rainfall (only 280mm) is supplemented by controlled drip irrigation from the Breede River to alleviate stress to our vines"[57].

The region has enjoyed significant success in 2003, both locally and abroad. Sparkling wines from the Robertson Wine Valley members won five of the top ten places in the Wine Armorim Cap Classique Competition in 2003. Weltevrede's Philip Jonker's Brut 1999 won the Wine Cap Classique Competition, Pieter Ferreira won four places with Graham Beck Brut Non-Vintage, Brut Blanc de Blancs 1991 and 1998, and Chardonnay/Pinot Noir 1994. Rooiberg won a place in the Absa Top ten Pinotage 2003[58]. Bon Courage, a private estate in the region, won the General Smuts Trophy for their Shiraz at the 2003 SA National Young Wine Show. Other producers such as Bon Cape Private Organic Winery which produces an organic Shiraz, Van Schoor which won 4 stars in the John Platters Wine Guide (2004) and Viljoensdrift, which was awarded 4½ stars for its River Grandeur Shiraz, are also boosting the regions reputation as a prominent Shiraz producer.

Cooperation between those involved in the wine industry in Robertson

One of the most striking attributes of the Robertson Wine Valley is the close working relationship which exists between grape growers, wine producers and all involved in the wine

[57] www.robertsonwinery.co.za
[58] Howe, G (2003) "Robertson Wine makers' Celebrate" –http://news.wine.co.za

industry in the area. In the words of Abrie Bruwer, a winemaker in the area, "the great thing about Robertson is that we are united about winemaking". This spirit of cooperation is evident in the number of collaborative ventures which have been initiated in recent times. The Robertson Wine Valley organizes an annual Young Wine Show, Food and Wine Festival and a countrywide wine tour to promote the region's wine. The year 2004 also saw the launch of a new marketing initiative under the "Heart of Route 62" banner. This campaign links Ashton, Bonnievale, Robertson, McGregor and Montague and aims to promote wine and tourism attractions in the area. A new Section 21 company was established to drive and implement this campaign[59].

Roodezandt Winery, one of the leading co-operatives in the area whose red wines in particular have been doing very well on both local and international wine shows, has also been at the forefront of a red wine improvement programme for the region. According to the cellar master the reason for Roodezandt's success is that "for viticulture and vinification, Roodezandt spearheaded a red wine improvement programme and improved the quality in our region's wines through sharing knowledge when others kept quiet." This sharing of knowledge and exchange of ideas is also evident in the use of viticultural and winemaking expertise. A quick perusal of the people involved in the industry in the region shows that viticulturist and viticultural consultants are often shared between different co-operatives, estates and private cellars. For example viticulturist and viticultural consultants such as Briaan Stipp, Anton Laas and Francois Viljoen provide their expertise to several producers and co-operatives in the region.

Training

Training is high on the agenda of the Robertson Wine Valley. The body organises a series of training courses in general viticulture during the winter. Growers and producers in the district are invited to send their workers on these courses. Faxes are sent to growers and producers informing them of the date and time when courses will take place and they are then invited to send workers to attend the training courses. The courses are facilitated by the Vineyard Academy and were sponsored in 2005 by the Leliefontein Nurseries in Wellington. Below is a table listing the range of courses offered and the number of participants who attended the courses during the 2005 training block.

[59] Howe, G (2003) "Robertson Winemakers Celebrate" – South African Wine News – http://news.wine.co.za

Table8 . Training Courses Offered by Robertson Wine Valley

Course	Number of Participants
Pruning	55
Tractor Operator	20
Safe handling of pesticides	17
Health and Safety	8
Irrigation	38
Basic Driving Principles	22
Disease Control	38
Canopy Control	23
Vine development	43
Total	264

The number of workers attending these courses is not large which suggests that growers and producers are not yet exploiting this service provided by the Robertson Wine Valley to the maximum (see table 8).

Another training initiative planned for the Robertson district is a 'Skills Centre' which is in the process of being constructed and will start operating in 2008. The Centre will be situated at Graham Beck Wines. Mr. Beck is the sponsor and main custodian of this training centre. The Skills Centre will be managed by a small core of two permanent staff members who will be responsible for the administration of training courses and will also assist producers and growers with the completion of forms for the AgriSETA. External facilitators will be employed on a consultancy basis to conduct the training courses.

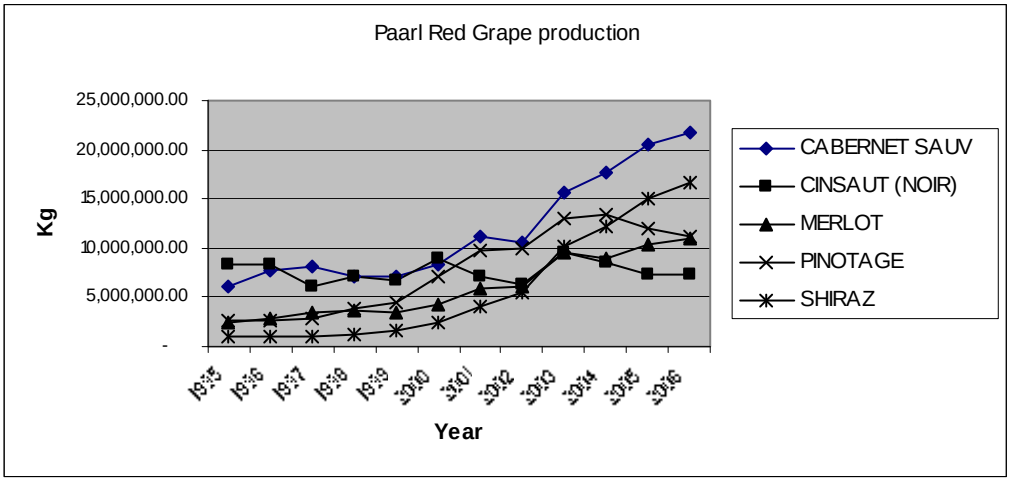
2.2. Paarl

Overview

Paarl has a longer wine-making tradition than Robertson. Paarl is well-known as a quality wine-producing area and is renowned as a red wine district. The Paarl Wine Route is also referred to as the Red Route. Paarl is home to the KWV headquarters.The area is world renowned for its Cabernet Sauvignon, Port and Shiraz wines. Cabernet Sauvignon, Shiraz and Merlot are the

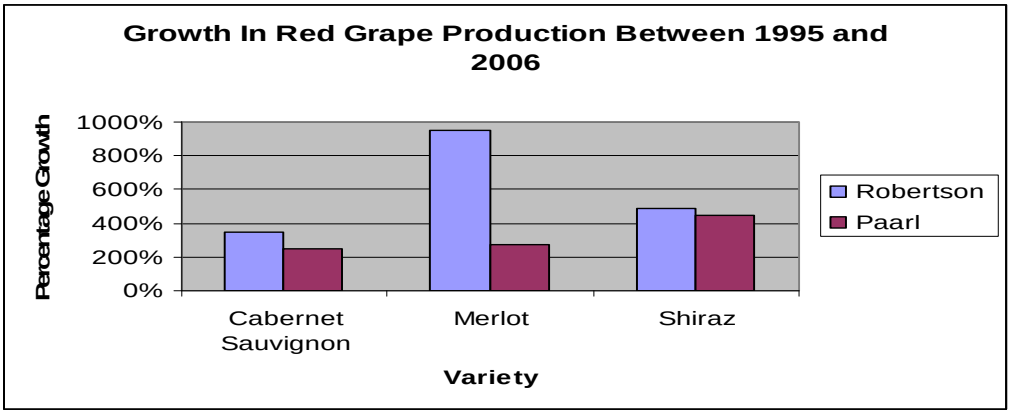
three red cultivars which have shown the greatest growth in production, especially since 2002, whereas there has been a reduction in the production of Pinotage and Cinsaut Noir (see figure 11). Although Paarl still produces greater volumes of noble red grape cultivars (Cabernet Sauvignon, Shiraz and Merlot) than Robertson, Robertson has shown greater growth in the production of these cultivars during the period 1995 to 2006 (see figure 12). This again demonstrates Robertson's efforts to transform itself from mainly a brandy producing region to one which can respond to the demands of the international wine market and also bears testimony to the success of Robertson's red grape improvement programme. White grape production in Paarl has remained stable over the last eleven years, except for chenin blanc which has shown a downward trend since 1995, except for a temporary peak in 1999 (see figure 13).

Figure 11: Red Grape Production in Paarl: 1995-2006



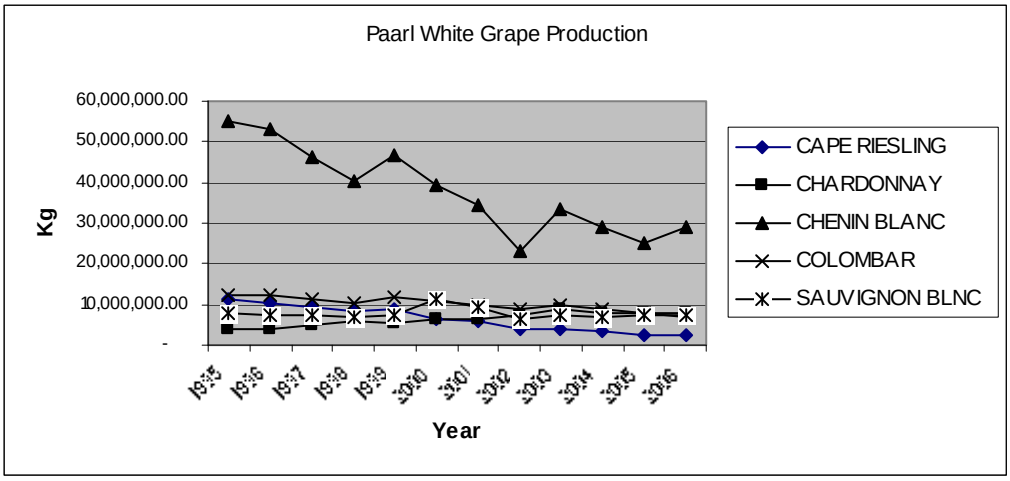
Source: SAWIS

Figure 12: Growth in Red Grape Production in Paarl and Robertson: 1995-2006



Source: SAWIS

Figure 13:White Grape Production in Paarl: 1995-2006



Source: SAWIS

Terroir

As far as terroir is concerned, the Paarl wine district is surrounded by the Groot and Klein Drakenstein and Franshoek mountain ranges and has three main types of soil: sandy soil of Table mountain sandstone, decomposed granite and Malmesbury shale. There are twenty-four wine cellars and estates on the Paarl wine route. Eleven of these, including Bernheim Wines, Boland Cellar, Crows Nest, Domaine Brahms, Nelson's Creek Wine Estate, New Beginnings Wine, Rhebokskloof, Ridgeback Farms, Rose Garden Vineyards, Under Oaks and Windmeul Cellar all form part of the Pearl's Gate mini wine region . These cellars and estates have together achieved significant success in the international wine market. During 2001 and 2003 their Cabernet Sauvignon and Shiraz wines were judged as the best in the world at the prestigious Vinexpo in France. They also received one grand gold and four gold medals at the Concourse Mondial de Bruxelle in 2005 and received 12 medals at the Michaelangelo International Awards in the same year[60]. Their success is attributed to their unique terroir which consists of a combination of granite and shale soils and an ideal climate. Another element of their success is the spirit of close cooperation which exists between the cellars and estates of the Pearl's Gate mini wine-region[61].

The same spirit of cooperation however is not evident for the rest of the Paarl wine route. The district is represented by Paarl Vintners which performs primarily a marketing role. According to Mr. Pieter de Waal[62], the Chief Executive Officer of Paarl Vintners, they have no control over

[60] http://www.pearlsgate.com/
[61] http://www.pearlsgate.com/
[62] Interview on the 23/03/2004

the quality of the wine produced, but do provide incentives for quality production through for example wine competitions like the Shiraz competition.

Training

Unlike the Robertson Wine Valley which is actively involved in the provision and promotion of training courses for growers and producers in the Robertson district, training is not a priority for Paarl Vintners. The body does have a social committee which focuses on social upliftment, but training does not form part of the efforts to "uplift" workers. According to Mr. De Waal, training is left to the discretion of individual farm owners or managers. Paarl Vintners' main function is to promote and market Paarl as a quality wine region and all other functions are secondary.

The two districts, Robertson and Paarl, differ significantly in terms of their history and current orientation to training, at least at an institutional level. Robertson was traditionally a brandy making district and had to work very hard to change their image to that of a quality wine producing district. There seems to be greater cooperation amongst wine producers and growers to achieve this goal. Paarl on the other hand has always been renowned for the quality of its red wine in particular and wine producers and growers seem to be much more individualistic, except for those who constitute the Pearl's Gate mini wine region. Training of vineyard workers is also much better promoted, facilitated and made available to growers and producers in Robertson at an institutional level through the Robertson Wine Valley than in Paarl.

3. Case Study 1 – Co-operative A (Robertson)

3.1. The Cellar as a Business Unit – Background Information

Co-operative A has 28 farming units and 63 individual members. Eight of the 28 farming units produce 80% of the co-operative's volume.

This co-operative, unlike many others in the South African wine industry, was able to read the signs of things to come relatively early on and embarked on an extensive restructuring programme in 1996. This restructuring programme encompassed a number of elements: investment in technology, human resources, new cultivars and a long-term strategy to systematically improve the quality of wine produced to name but a few. A total sum of R20 million has been invested in the upgrading and extension of the cellar over the last 12 years. The number of tanks in the cellar have more than doubled from 150 ten years ago to 350 currently.

The business philosophy of this co-operative cellar is that “There is no room for surprises”. This philosophy has informed the direction that the co-operative has taken over the last decade or so and its current strategic orientation. There is a clear plan for which products are being produced, the volumes of these products and their eventual destination. The co-operative already knows a year in advance how many tons per cultivar will be produced the following year and exactly where and to whom this wine will be sold. Production is geared towards the demands of the market. For example the co-operative has systematically increased its percentage of red wine production. Twelve years ago the cellar produced 31 tons of red grapes and currently it produces 5000 tons in the wake of increasing demand. The co-operative has a long term strategy to systematically improve the quality of its wine. The plan is for their wine to advance one step up the quality ladder every year.

The grading system, which was introduced in 1998, has proved particularly effective in the improvement of the quality of the grapes. Blocks are graded from class 1 to 6, with class 6 being the highest class. Class 6 blocks are tended to with extra precision, according to a specific winter and summer programme. These blocks are grown for specific buyers. Prospective buyers are taken to view the blocks and are introduced to the producer and buyers can then give producers specific guidelines as far as vineyard practices are concerned for a particular block. All of the revenue generated by Class 6 blocks goes directly to the producer. None of it is kept back by the co-operative’s management. Grapes are bought according to a “cafeteria system”, this means that if 80% of a producer’s grapes which have gone into a particular tank have been sold, the producer will receive 80% of the income.

All grapes are graded in the vineyard three to four months prior to harvesting. According to the manager “no grapes arrive at the cellar unannounced, we do not want any surprises”. A chemical and physical test is performed on the grapes upon their arrival at the cellar, but merely as a final quality check. The quality, class and price of the grapes had already been determined months before in the vineyard. So there is a great financial incentive for producers to apply the correct vineyard practices in order to improve the quality of their grapes. Producers also receive considerable support from the viticulturist in this regard. The viticulturist visits individual producers on an ongoing basis throughout the year and is on hand whenever they need advice or guidance with vineyard practices. These visits are recorded meticulously.

The cellar has an A and B pooling system. All members’ grapes belong to pool A although

members' grapes are differentiated into different classes and separated into different tanks. Pool B consists of the grapes of non-members which are bought when the cellar needs extra grapes. These grapes are bought on the basis of short term contracts. Surpluses from A-pool members can also go into Pool B. Pool A members receive payment within 6 months, whereas Pool B members wait a little longer for their money. This pooling system puts the cellar in a position to deliver the necessary volumes and ensures that production remains constant (Ewert, 2004: 14). .

The co-operative has invested a considerable amount of time into the establishment of a reliable database. This allows them to keep track of all the cultivars on all farms, the different blocks per farm, the soil and areas where these blocks are located. This puts them in a position to identify specific blocks and specific producers. The work of the viticulturist has proven invaluable in this regard. Two viticulturists are employed, a part-time, contract viticulturist and a full-time viticulturist.

Investing in personal networks and improving social relationships have also proved to be an important element of the co-operative's strategy. In the beginning of the restructuring processes personal networks with university acquaintances were quite useful as a source of knowledge and information about market trends. The board has also made a point of establishing and maintaining good relationships with clients. They have a policy in terms of which clients are visited once a year to ensure that the relationship is still on track. On such occasions representatives from the co-operative make a point of interacting not only with those higher up in the client organisation, but with people at all levels of the organisation. These trips also present an opportunity to look for new business and to approach new potential buyers. The managing director of this co-operative believes that service is important as "sometimes that is the only thing which distinguishes you from the competition". Another important element of the cellar's commitment to excellent service is the use of an electronic system which tracks wine samples en route to international clients. This is yet another example of the co-operative's commitment to plan every aspect of the business in the finest detail and its willingness to embrace new innovative ideas and technologies in doing so.

Marketing of the co-operative's wine has also received special attention as part of the restructuring process. The co-operative appointed an independent consultant to conduct the marketing of its products. This person devotes about 60% of his time to the marketing of the co-operative's wine. The co-operative has also established an independent marketing company

which does marketing on behalf of the co-operative and manages a considerable amount of the co-operative's sales in the international market. Through the establishment of this independent company, the co-operative has been able to enter into a business deal with Vinfruco[63], one of the most successful wholesalers in South Africa. By bringing Vinfruco on board as an investor in the marketing company, the cellar has been able to access much needed capital.

The appointment of the current managing director has played a major role in the pace and success of the restructuring programme at this co-operative cellar. He has been the driving force behind much of the change which has occurred at the cellar over the last decade. The managing director however, also points out that the structure and support of the board has played a part in the success of restructuring at this co-operative. He describes the board as a "liberal, business oriented" board and argues that the board does not have a "co-operative mentality". The current board is relatively young with the average age being 48 and the oldest board member being 51. Each member of the board has a specific portfolio which he is responsible for. The board is well educated and qualified. Each one of the board members holds a university degree in one or other area, for example marketing. According to the manager this is very different from earlier years. The current board members are very well informed and business oriented, in fact they are all "quasi businessmen". All board members are also full-time producers.

A final element in the co-operative's long term strategy is the commitment to training and skills development, especially in the cellar. The board has a policy of continuous training and learning. Most of the cellar workers have completed levels one and two of SKHOP (Sekondêre Kelder Hulp Opleidingskursus) [64]and would have completed the third and final level of the course of 2005. As far as training at farm level is concerned, this is mostly done at the discretion of the farmer or farm manager. However, if vineyard practices are not executed correctly, the viticulturist will intervene and make recommendations. A few farm workers on some of the member farms have attended pruning courses arranged by the Robertson Wine Valley and financed by the South African Wine Industry Trust (SAWIT) (Ewert, 2004:14).

The restructuring programme at this co-operative has certainly paid off. Turnover increased ten-fold between 1994 and 2004. However, some of these changes were resisted by some members.

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[63] Vinfruco merged with Stellenbosch Vineyards to form "Omnia Wines" which has now been renamed "The Company of Wine People".

[64] Secondary Cellar Assistant Training Course, the cellar course offered by Elsenburg Agricultural College, one of the primary institutes for training in the industry

A few of these brought litigation against the cellar, but the case was eventually settled out of court.

3.2. Presentation of Research Results

A total of 16 member farms participated in the study. Interviews were conducted with either the farm owner or manager on each farm. Interviews were also conducted with 3 workers on average per farm. A total of 45 workers were interviewed.

3.2.1. Views of Co-operative Members

Quality Wine and Means of Achieving Quality

The first section of the questionnaire administered to farm owners/managers dealt with their perception of what a quality wine is and how to achieve quality. The majority of the respondents (8 of the 16 respondents) defined a quality wine as a wine which "is always pleasant to drink and tastes good". Other definitions of a quality wine provided by the respondents included the following:

- 'Establishes and sustains itself in the market'
- 'Characteristics of the cultivar eg. Chardonnay is present in the wine'
- 'Is the result of correct vineyard practices'
- 'Wine that receives accolades and prizes at shows'
- 'Is the result of the correct match between terroir and cultivar'
- 'Has good maturation potential

On the question of how quality wine is achieved, the majority of respondents felt that the vineyard is the starting place in the quest for quality wine as evidenced by the following responses[65]:

- 'Quality starts in the vineyard' (6 out of 16)
- 'Correct vineyard and cellar practices' (6)
- 'Matching cultivar with the most suitable terroir' (5)
- 'Caring for the vineyard'
- 'Efficient management'
- 'Advice from viticulturist is important'
- 'Timing of actions is essential'

[65] There were multiple responses to the question that is why the responses don't add up to 16.

Short-term Vineyard Practises

Farmers or farm managers were asked which vineyard practises had changed the most over the last five years. Pruning and suckering were identified by half of the respondents (8 out of 16) as having changed the most over the last five years, followed by crop control and irrigation. Farm owners/managers keep up to date with the latest developments in vineyard practises by consulting various sources of information. Twelve of the sixteen respondents named the cellar's viticulturist as their most important source of information regarding new vineyard practises. Other important sources of information are agricultural magazines like Wineland.

However when asked whether any of the short-term vineyard practises are problematic in terms of workers' execution of these practises, opinions were split down the middle. Fifty percent (8 out of 16) of respondents said that none of the short-term practises were problematic. However, the other half identified crop control, suckering, the availability of labour, leaf removal, pest and disease control and pruning as problematic short-term practises. The most important methods of addressing these problems are through strict supervision and repeated demonstration by the farm owner/manager and by explaining to workers that the cellar requires certain specific practises in the vineyard.

Type of Labour Employed

The majority of the farms use permanent labour for pruning. Fifteen of the sixteen farms use permanent men to prune the vines. However, eight also use permanent women for the same task. Seven of the farms researched use casual workers supplied by labour contractors for pruning while three other farms recruited casual workers themselves to do pruning.

Workers' Skills

Nine out the sixteen respondents felt that their workers did have sufficient skills to implement new vineyard practices effectively, but that they still needed strict supervision. Only four respondents gave an unqualified yes to this question, while three thought that their workers did not have sufficient skills.

Respondents were also asked to name the skills which they thought their workers lack. The following skills were mentioned:

- Workers cannot use their own discretion

- Cannot envision long term effect of actions
- Do not comprehend why certain actions are performed
- Lack of interest / motivation
- Lack of self-confidence
- Lack of education in general

Farm owners/managers employ the following strategies in order to deal with the skills shortages amongst the workforce:

- Skilled workers supervise those that lack skills
- Repeated demonstration
- Employ skilled contract workers
- Further training and education
- Constant monitoring
- Motivate workers

External Training Providers and Funding for Training

Farmers or farm managers were tested on their awareness of the work of the Vineyard Academy and skills development legislation, specifically the Sector Education and Training Authority (SETA) and the skills levy. Interestingly, only five of the sixteen respondents were aware of the Vineyard Academy and only one of them had made use of the services provided by the Vineyard Academy. More importantly, only one of the sixteen respondents had made use of the opportunity to claim the skills levy back from the SETA. This is a good indication of the lack of formal skills training prevalent on these farms.

The majority of respondents however are in favour of a formal training centre being established in the area. Thirteen of the sixteen respondents felt that there was a need for a training centre in the Robertson area. The reasons given for this were:

- Workers must be taught why practices are performed
- Contract workers need to be trained correctly and receive a certificate as proof of their skills
- There is always a need for further training and education
- Workers must be trained to identify good quality
- Taste wine in order to expand knowledge on the subject

- Personal upliftment, development and empowering of workers

As far as who should be responsible for funding such a training centre, the following sources were identified:

- The Department of Agriculture
- The SETA
- The Government
- The Municipality
- Farmers/ Contractors making use of the centre
- Robertson Wine Valley Association
- Sponsors

Class Differential between Grapes

Respondents were questioned on their views regarding the price difference between grapes, specifically that between a class 1 and a class 6 (blocks grown for specific buyers). At the moment the price difference between class 1 and class 2 grapes is R250 per ton and that between a class 1 and a class 6 is R350 per ton. The question about members' feelings regarding the price differential between grapes is significant as the payment system is related to the training regime. If members are unhappy about the class differential, then they would not be motivated to invest the time, labour and other resources required to produce class 6 grapes. Similarly, they might feel that there is not enough incentive to invest in training and skills development for their workforce. The majority of respondents (10 of the 16) felt that the class differential should be much bigger than it is currently. Two were satisfied with the current pricing, one respondent felt that there should be a difference of at least R2000 per ton between a class 6 and a class 1. Others felt that there should be no cross subsidizing between different classes of grapes. The issue of the class differential is obviously a contentious issue, at least amongst those interviewed.

Future Strategy of the Cellar

Respondents had a number of suggestions as to the strategic direction the cellar should take in the future. The most frequent response (6 out of 16) however, was that the cellar should focus on improving the quality of the product and that it should expand cellar technology, marketing and the on-site appearance. Other suggestions included:

- 'Build on international alliances and innovation'
- 'Develop icon/ flagship wines'

- ‘Class 6 should be further differentiated into eg. Class 7 and 8’
- ‘Become environmentally friendly’
- Improve capacity and tank-differentiation’
- Keep up to date with the wine industry whilst keeping all finances in order

3.2.2. Profile of Workers

Of the 45 workers who were interviewed, 44 were permanent workers and one was a contract worker. Three were female workers and the rest were all male. The average number of years of schooling completed amongst the sample of workers was five. Eighty percent of those interviewed were literate, meaning that they could read and write. The average number of years that workers had been employed on the farm was ten, so many of the workers had been working on the farm for quite some time.

3.2.3. Views of Workers

Vineyard Practices

The majority of those interviewed felt that none of the vineyard practices have changed over the last five years. Second in line in terms of the number of responses was pruning, where eight of the 45 respondents felt that pruning had changed the most over the last five years. This was followed by suckering and training of the vine. With regard to all vineyard practices workers were asked whether the owner/manager had explained to them why they had to execute these in a particular way. In the case of pruning for example thirty-seven (86%) of those interviewed said that the owner/manager did explain to them why they should prune in a specific way.

The reasons given were to ensure quality grapes, followed by the improvement of the growth of the plant and the improvement of spacing between bunches. Other reasons include preventing the vine from carrying too many grapes, preventing the grapes from rotting and to facilitate suckering (see table 9).

Table 9: Reasons For Pruning Methods

TYPE OF REASON	N
To ensure quality crop/ grapes	10
Improves growth	8
Improves spacing between bunches	8
Prevents the vine carrying too many grapes	5
Prevents grapes from rotting	5
To facilitate suckering	4

However this is no guarantee that workers actually understand the instructions given to them by the owner/manager. To this end, the overlap between owner/managers' instruction regarding certain pruning practices and workers' understanding of these instructions was ascertained. The results are presented in Table 10:

Table 10 : Number Of Bearers Per Arm

Farm No.	Overlap[66]	Average number of school years completed[67] by workers	Block Grading[68]		
			2002	2003	2004
1	100%	8	6	6	6
2	100%	5	6	6	6
3	75%	3	6	6	6
4	Farmer: Spacing[69] Workers: 100%Overlap[70]	4	6	6	6
5	100%	5	6 & 1	6 & 1	6 & 1
6	100%	5	6 & 1	6	6
7	Farmer: Spacing Workers: 0%[71] Overlap	8	6	6	6
8	Farmer: Spacing Workers: 0% Overlap	4	1	1	1
9	0%	6	1	1	1
10	0%	7	NA	NA	1
11	50%	8	6	6	6
12	50%	3	1	1	1
13	33%	7	1	1	1
14	50%	5	1	1	1
15	Farmer: Spacing Workers:0%Overlap	4	1	1	1
16	100%	3	6 & 1	6 & 1	6 & 1

Only on 5 of the sixteen farms was there a 100% overlap between the owner/farmer's instruction

[66] We asked owner/farm managers what they tell their workers about certain vineyard practices and asked workers identical questions. If the answers of all workers interviewed on a particular farm were identical to that of the owner/farm manager, this would translate into a 100% overlap, if the answers of only three out of four workers were identical to the owner/farm manager this would translate into a 75% overlap, etc

[67] This is the average number of school years completed by workers on that particular farm

[68] This is the class into which the chardonnay was classified that particular year

[69] Owner/Manager used spacing, for example the width of a fist, and not number of bearers per arm as an instruction

[70] Workers agreed amongst each other, but their answer was different from that of the owner/manager

[71] Workers did not agree amongst each other or with the owner/manager

regarding the number of bearers workers should leave per arm when pruning and workers' understanding of this instruction. There is no consistent relationship between the educational level of workers on the one hand, and the degree of overlap between farmers' instructions and workers' understanding. There also does not seem to be a consistent relationship between degree of overlap on the one hand and the grading obtained. This exercise was repeated with respect to the length of the bearer (see Table 11).

Table 11 : Length Of Bearer

Farm No.	Overlap	Average. number of school years completed by workers	Block Grading	
			2002	2003
1	100%	8	6	6
2	75%	5	6	6
3	100%	3	6	6
4	75%	4	6	6
5	Farmer: Length of Matchbox Workers: 1 bud	5	6 & 1	6 & 1
6	100%	5	6 & 1	6
7	Farmer: Length of Matchbox Workers: 2 buds	8	6	6
8	100%	4	1	1
9	100%	6	1	1
10	75%	7	NA	NA
11	100%	8	6	6
12	100%	3	1	1
13	Farmer: Depends on age of vine Workers: Did not specify	7	1	1
14	0%	5	1	1
15	100%	4	1	1
16	50%	3	6 & 1	6 & 1

On 11 of the 16 farms, there was a 75% and higher overlap between the owner/manager's instruction regarding the length of the bearer and workers' understanding of this instruction. This may be because most owners/managers use a matchbox as a reference point for the length of the bearer, which is easy for workers to remember.

Training

Workers were asked whether or not they had received training from an external person, i.e. anyone other than the farm owner or manager, over the last five years. Only one out of the 45 workers who were interviewed had received training from an external training provider.

The most popular choices with regards to workers' training aspirations were general viticultural training and irrigation training, followed by pruning of fruit trees, disease and pest control, tractor maintenance courses and general mechanical courses. The majority of those interviewed were optimistic about their chances of receiving further training, with 28 of the 45 perceiving their chances of receiving such training as reasonable to good. Eight felt that it would be difficult to receive training and 4 said that it would depend on the owner or manager's support.

4. Case Study 2 - Co-operative B (Paarl)

4.1 The Cellar as a Business Unit – Background Information

This co-operative cellar is situated in Paarl. It has 80 members of whom 20 produce 92% of the co-operative's volume. The cellar produced 10 500 tons during the 2004 season of which 52% was red and 48% white. Less than 1%, about 5000 cases, of the wine is bottled. The rest is sold in bulk. Approximately 80% of the cellar's wine is sold in bulk to Distell and less than 1% is sold at the cellar door.

The transformation process at this cellar started in 2000 and the last six years have seen extensive transformation in terms of vineyard practises. Much of this transformation dates from the time that a new managing director and viticulturist were appointed. This change came about because the board of directors was not happy with the leadership of the previous managing director. As a result this co-operative has only recently begun to market some of their wine independently while the bulk of their wine is still sold to Distell. When asked why the co-operative chooses to maintain this relationship with Distell rather than sell their wine on the

open market, the managing director responded “I can’t gamble with my members’ future”.

A lot of time and effort goes into ensuring that producers apply the correct vineyard practices. Every producer receives an information pack at the beginning of the year, detailing the correct vineyard practices which need to be applied throughout the season to attain Class A, B or C grapes. The following is an excerpt from the cellar’s guidelines with regards to the correct vineyard practices as far as pruning is concerned:

- ‘A maximum of 8 bearers per meter cordon (± 12-15cm spacing depending on vigour of vine)’.
- ‘Maximum bearer length of ± 4-5cm (only 2 buds) for shoots thicker than a pencil - applies to all cultivars except Pinotage’.
- ‘Maintain a balance between the right and left cordon arms (i.e. the same number of buds on both sides as well as a straight trunk)’.
- ‘The same guidelines apply to all trellised vineyards, regardless of cultivar’
- ‘However, they can be ‘fine-tuned’ to suit a particular cultivar’

Vineyard practices such as suckering, pruning, shoot positioning, tipping and topping receive particular attention from the viticulturist and individual farmers and every block receives individual care. As part of the commitment to the correct vineyard practices, the cellar employs a full-time viticulturist assisted by a part-time Vinpro viticulturist and a private consultant. Together they provide members with extensive support and guidance throughout the season.

The cellar has also dedicated much time to the refinement of its grading system as part of its commitment to improve the quality of grapes. This change in the grading system occurred since 2000 when there was a shift from chemical testing only to the inclusion of block grading. The grading system has become increasingly refined every year. All red cultivars plus chardonnay and sauvignon blanc are considered noble cultivars. All the white cultivars undergo chemical testing to establish the quality of the grapes. Chardonnay and sauvignon blanc could also undergo a chemical test, but they are not graded according to this chemical test. For the grading of the white cultivars, the cellar makes use of a 5 class grading system plus a class 6 which is basically wine of very low quality, the type of wine which goes into foil bags. Class 5 is the “winemaker’s” class which means that these are grapes with which the winemaker wishes to

experiment. These grapes might not be classed, but they will receive the same price as a class 1.

The noble cultivars are not classified according to a chemical test, but are classified through block grading. Classification of the noble cultivars (reds plus chardonnay and sauvignon blanc) occurs in the vineyard, approximately two weeks prior to harvesting. Blocks are graded by means of a scorecard. This scorecard contains a list of vineyard practises and each block is evaluated in terms of how well the producer adhered to the guidelines for each vineyard practice. Noble cultivars are classified into three classes, Classes A, B and C with C being the lowest class. The cellar introduced a class C for the first time in 2003. If a particular block is on the border between a Class A and B, the producer will get the benefit of the doubt.

Grading is done by a team of three and the team operates on the basis of consensus. According to the viticulturist, consensus is reached 9 out of 10 times. On the rare occasions when consensus is not reached, the block will be re-graded and discussed amongst the team. Tasting also plays a role in the grading system. Once the blocks have been graded into either a Class A, B or C, a tasting test will further determine whether a particular block receives a 80% A or a 90% A. This tasting test occurs during the ripening process. This is used to differentiate tanks; for example all 90% A grapes will go into a separate tank.

Producers are also encouraged to bring in samples of their red grapes before the harvest. These samples are used to test the sugar content of the grape in order to determine the optimal time for harvesting. This however, does not affect the grading of the grape or the price that producers receive for their red grapes. The class and price of noble cultivars are determined in the vineyard. Producers are thus rewarded on the basis of how well their vineyard practices are executed. The samples are simply used to determine the optimal time for harvesting. Records are kept of all samples and producers are only allowed to start harvesting once they have received the “green light” from the cellar. Should a producer decide to go ahead with harvesting without the cellar’s consent, he will be penalised and this particular block will immediately be downgraded.

The only drawback as far as the grading system is concerned is the fact that the difference in price between a Class A and a Class B is very small, R300 per ton. This is so because the cellar does not want to disadvantage any producers. However, the viticulturist agrees that this is a drawback as far as quality production is concerned as there is not a big enough incentive for

producers to invest the time and effort into the correct vineyard practices in order to obtain a Class A grade for their grapes. At the time of the research a further drawback for quality was the insufficient differentiation of tanks. The cellar did not have enough tanks to separate different classes of grapes and was sometimes forced to mix very good quality grapes with those of lesser quality. In 2004 the cellar embarked on a huge renovation and extension programme to boost its capacity. This extension programme was completed in 2005.

Unlike co-operative A in Robertson, where the philosophy is one of "no surprises" and where everything is planned down to the finest detail, this particular cellar has only recently made an attempt to create a closer match between the demands of Distell and the grapes supplied. The intention is to produce specific blocks for specific Distell labels.

Training at farm level is done at the discretion of the individual farmer. The cellar does however, try to encourage further training by inviting experts to speak to producers about specific vineyard practices. The viticulturist also conducts training sessions for workers from time to time on demand from individual farmers.

4.2. Presentation of Research Results

4.2.1. Views of Co-operative Members

Quality Wine and Means of Achieving Quality

Farm owners/managers were asked to define what they perceive to be a 'quality' wine and also to describe the means of achieving this. Half of those who were interviewed defined a quality wine as being the result of correct vineyard practices and technology. Other definitions of quality wine included:

- Is always pleasant to drink'
- 'Has a good appearance and attractive labelling'
- 'Wine that scores high at any tasting'
- 'Is the result of the correct match between terroir and cultivar'
- 'Establishes and sustains itself in the market'

- ‘Has good maturation potential’

As far as achieving quality is concerned, most farmers identified correct vineyard practices as the primary means of growing quality grapes and ultimately making a quality wine. The following are some of the responses to the question of how a quality wine can be achieved:

- Quality starts in the vineyard’
- ‘Caring for the vineyard’
- ‘Correct vineyard practices’
- ‘Good technology’
- ‘Matching cultivar with the most suitable terroir’
- ‘Advice from viticulturist is important’

Short-term Vineyard Practices

Farmers or farm managers were asked to identify those short-term vineyard practices which had changed the most over the past five years. Most respondents pointed to suckering. Other short-term practices which had changed significantly over the last five years were pruning and tipping. Farmers or farm managers seem to rely heavily on guidance from the cellar’s viticulturist for information regarding new vineyard practices, as eight out of ten respondents identified the cellar’s viticulturist as their most important source of information for new vineyard practices. Another important source of information, identified by six of the ten respondents, is the cellar’s viticultural consultant. Fellow farmers play a less significant role.

Suckering and pruning were identified as the two vineyard practices which are most problematic in terms of workers’ skills. Again, as was the case with co-operative A, strict supervision and repeated demonstration by the farm owner/manager were highlighted as the most important means of addressing this problem. The importance which farm owners or managers attach to supervision is illustrated by the following quotes:

"Nobody enters the Shiraz block when I am not on the farm."[72]

"A farmer's footsteps are the best fertilizer for his farm."[73]

Training by the cellar's viticulturist is another important method used by farm owners or managers to deal with problematic vineyard practices.

Type of Labour Used

Again, as in the case of co-operative A, there is a preference for permanent labour where pruning is concerned. All ten participating farms use permanent men for pruning. Five farms also use permanent women to prune vines. Only one farm used casual men and women recruited by the farm itself. Four farms use casual labour (men and women) supplied by a labour contractor.

Workers' Skills

Respondents were asked whether or not they were confident that their workers had sufficient skills to implement new vineyard practices effectively.

Table 12 : Do Workers Have Sufficient Skills To Implement New Vineyard Practices?

RESPONSE	n
"Yes."	3
"Yes, but they must be supervised."	3
"No."	4
Total	10

The majority of the respondents did not have unqualified trust that their workers' would effectively execute the correct vineyard practices (see table 12). The above quotes also demonstrate farmers' lack of faith in their workers' ability to execute vineyard practices correctly without strict supervision.

Farmers identified the following as lacking:

- Literacy
- Suckering

[72] *"Niemand kom op die Shiraz blok as ek nie op die plaas is nie*
[73] "*n Boer se voetstappe is die beste bemesting vir sy plaas."*

- Crop control
- Motivation
- New workers have no skills at all

Steps taken by farm owners or managers to address skills shortages amongst the workforce include:

- More training by the cellar's viticulturist– especially pruning and suckering
- Repeated demonstration in the vineyard
- Lessons on blackboard
- Annual briefing of workforce

Class Differential between Grapes

Respondents were asked what their views were on the class differential between a Class A and Class B. Again this turned out to be quite a contentious issue with some respondents declining to comment. The majority of those interviewed however, felt that the difference should be greater than it is currently. These were some of the views:

- between R2000 and R2500 per ton"
- "much greater than it is currently"
- "no less than R2000 per ton"
- "greater, ± R1000"
- "10%"
- "greater, for red cultivars it should be R4000"

Members' Views on the Future Strategy of the Cellar

Members were generally pleased with the strategic direction the cellar has taken. They did however, have a few suggestions as to how the strategy could be improved. These suggestions relate to improving the quality of the product, more investment in marketing and the upgrading of the cellar's technology:

- Maintain the relationship with Distell'
- 'Improve the quality of our product'
- 'Expand cellar technology, marketing and on-site bottling'
- 'Combine the trademark-, bottling- and bulk wine strategies'
- 'Use the cellar's location as a competitive advantage'

- ‘Train workers - especially regarding vineyard practices such as pruning’
- Match cultivar and terroir’
- ‘Keep up to date with the wine industry whilst keeping all finances in order’

There is however, no consensus amongst those interviewed, instead there were as many opinions as members interviewed.

4.2.2. Profile of Workers

At the ten farms that participated in the study, a total of thirty workers were interviewed, i.e. an average of three per farm. Two of the respondents were female and the rest were male. The average number of school years completed amongst the sample of workers was five and 33% were illiterate, i.e. they cannot read or write. The average number of years that workers had been employed by the farm was twelve.

4.2.3. Views of Workers

Vineyard Practices

Workers were asked to name the short-term vineyard practices which in their view had changed the most over the past five years. The three vineyard practices most frequently mentioned were suckering, training of the vine and pruning.

As in the case of co-operative A workers were asked what farmers/managers told them to do regarding a number of specific vineyard practices. In addition, workers were asked whether farmers/managers explained to them why they had to execute these practices in a particular way. For instance, with regard to pruning the majority of workers (73.3%) answered in the affirmative.

The reasons given to workers why they should prune in a particular way included the following:

- “Maximum exposure to the sun”
- “Maximum exposure to pesticides”
- “Prevents rotting of grapes”
- “Ensure correct shoot growth”
- “Prevents the vine carrying too many grapes”
- “To ensure quality grapes”

Workers' understanding of farmers/managers' instructions were then compared with the latters' descriptions of instructions as established during the farmer/manager interview. For instance, with regard to the question "How many bearers should there be left per arm?" at only 3 (out of 10) farms was there a 100% overlap between farmers' instructions and workers' understanding of it (see table 13).

Table 13 : <u>Number of bearers per arm?</u>

Farm No.	**Overlap**	**Average number of school years completed by workers**	**Block Grading**		
			2002	2003	2004
1	100%	9	NA[74]	A	A
2	100%	7	NA	NA	A
3	50%	3 - 4	A	B	A
4	33.3%	6 - 7	NA	NA	NA
5	100%	5	A	A	A
6	33.3%	4	B	A	A
7	33.3%	7	A	B	A
8	33.3%	3	A	B	A
9	could not be established	6	A	A	A
10	33.3%	2	NA	A	A

[74] Shiraz was not harvested in that particular year

Table 14 : Length of bearer

Farm No.	Overlap	Average number of school years completed	Block Grading		
1	100%	9	NA[75]	A	A
2	100%	7	NA	NA	A
3	Question not asked	3 - 4	A	B	A
4	75%	6 - 7	NA	NA	NA
5	100%	5	A	A	A
6	100%	4	B	A	A
7	100%	7	A	B	A
8	100%	3	A	B	A
9	50%	6	A	A	A
10	66.6%	2	NA	A	A

The results concerning the instructions given to workers regarding the length of the bearer are radically different, with 6 of the 10 farms achieving a 100% overlap (see table 14). As with co-operative A, the reference point given to workers is a matchbox which is easy to remember.

Training

Training is done mostly on-farm by the farm owner/manager. The only training done by anyone other than the farm owner/manager was that done by the cellar's viticulturist, specifically in pruning methods. Only seven of the thirty workers interviewed received training in suckering methods by an external "agent". None of those interviewed received external training for any other vineyard practice.

Workers did however, express a desire for further training. The list of training aspirations includes:

- General viticultural training, specifically pruning and suckering
- Wine making

[75] Shiraz was not harvested in that particular year

- Disease and pest control
- Irrigation
- Tractor and/or lorry licence
- Mechanic

Workers at these co-operative farms were far less optimistic about their chances of receiving such training than those linked to co-operative A. Only ten of the thirty workers interviewed rated their chances of getting the desired training as reasonable to good, five said it would be difficult and two said it would depend on the farm owner/manager's support.

5. Comparison between Co-operative A and Co-operative B

5.1. History and Efforts at Transformation

Both co-operatives have undergone significant transformation over the last few years. However, unlike co-operative B which only embarked on an extensive transformation of its vineyard practices in 2000, co-operative A read the signs early on and commenced its restructuring programme in the early 1990's. Co-operative A invested considerable time in the transformation of not only its vineyard practices, but has also devoted substantial resources to the upgrading of technology, human resources in terms of the training of cellar staff and new cultivars. Part of this investment includes a sum of R20 million which has been invested in the extension of the cellar over the last 12 years. Co-operative B on the other hand, only started upgrading its cellar capabilities and technology in 2005. At both cellars the appointment of a new managing director seems to have acted as an important catalyst for the transformation process.

5.2. Vineyard Practices

Both co-operatives recognise the importance of correct vineyard practices for the production of quality wine and have spent much time and effort on ensuring that members implement the correct practices. This is illustrated by the appointment of a full-time viticulturist at both co-operatives. The viticulturists play an important role in the transformation of vineyard practices at both cellars. The viticulturist at cellar B distributes an information pack to each member at the beginning of each year, detailing the correct vineyard practices and what is expected of members in terms of suckering, pruning, shoot positioning, tipping and topping, etc. The viticulturists at both cellars visit individual co-operative members on an on-going basis to ensure that they stay on track as far as vineyard practices are concerned. Interestingly, the viticulturists at both cellars make use of a database where each visit and the particulars of each member farm are

meticulously recorded.

5.3. Grading System

The grading system seems to be an issue of great importance at both cellars. Co-operative B only recently modified its grading system. Since 2000 it includes block grading, whereas prior to 2000 it relied on chemical testing only to determine the quality of grapes. Co-operative B also added a class C for its noble cultivars in 2003. Class C is the lowest class.

However, co-operative B has a different grading system for white and what it calls its noble cultivars (all red cultivars plus chardonnay and sauvignon blanc). The noble cultivars do not undergo a chemical test, but are graded in the vineyard approximately two weeks prior to harvesting by means of a scorecard. Co-operative A on the other hand applies both block grading and chemical testing to all its grapes. All grapes are graded in the vineyard three to four months before harvesting.

Interestingly, at both cellars the majority of those members interviewed were unhappy with the price differential between different classes of grapes. Many felt that the price difference should be much bigger than it is currently. This is definitely an issue which the management of both cellars need to pay attention to as it could have a bearing on the quality of grapes produced as well as the training issue. Producers may feel that there is simply not enough of an incentive to invest the time and resources necessary to upgrade the quality of their grapes. They might consequently also not feel the need to invest in the training and development of the skills of their workforce.

5.4 Wine Price Comparison

To get a sense of how these two co-operative cellars' wine is performing relative to the industry, the average price per litre of chardonnay in the case of cellar A and shiraz for cellar B was compared to the average price per litre of each cultivar in different wine regions. Price is here used as an indicator of quality of wine. Table 15 shows that cellar A's chardonnay is performing very well relative to the other wine-making regions. In fact only chardonnay from the Stellenbosch region fetched a higher price per litre than cellar A in 2004.

Table 15 – Average Price Per Litre of Chardonnay Per Region in 2004

Region	Average Price[76]/litre of Chardonnay in 2004
Robertson	R 4.92
Stellenbosch	R 5.44
Paarl	R 4.97
Olifantrivier	R 4.43
Malmesbury	R 4.98
Worcester	R 4.81
Klein Karoo	R 4.85
Cellar A	R5.20

Source : SAWIS

Cellar B's shiraz seemed to have performed as well as cellar A's chardonnay in comparison to that of other wine-regions in 2004 (see table 16). In fact, only the price of shiraz from Malmesbury (R7.35/litre) came close to that of cellar B's which sold for R7.50/litre in 2004 (see table 16).

Table 16 – Average Price Per Litre of Shiraz Per Region in 2004

Region	Average Price[77]/litre of Shiraz in 2004
Robertson	R 6.26
Stellenbosch	R 6.85
Paarl	R 6.51
Olifantrivier	R 6.33
Malmesbury	R 7.35
Worcester	R 5.71
Klein Karoo	R 6.31
Cellar B	R7.50

Source: SAWIS

Not only do the majority of farms which participated in this study obtain top grades for their

[76] These are bulk wine prices
[77] These are bulk wine prices

chardonnay and shiraz at the cellar, but the cellars' chardonnay and shiraz perform equally well in comparison to that of other wine regions.

5.5. Workforce

The on-farm workforce at both co-operatives looks relatively similar. There seems to be a preference for permanent workers, especially when it comes to the execution of important vineyard practices like pruning and suckering. The education profile of workers at both co-operatives is also similar. The average number of school years completed at both co-operatives is five, although the literacy level of those workers interviewed at co-operative A is higher (80%), compared to those at co-operative B (67%). The length of service of workers at both co-operatives is also substantial, namely ten (co-operative A) and twelve years (co-operative B) respectively.

5.6. Communication between Management and Workers Regarding Vineyard Practices

There seems to be a greater effort made on the part of farm owners/managers at co-operative A to explain to workers the rationale behind the execution of vineyard practices, pruning in particular. Eighty-six percent of workers interviewed at co-operative A reported that farm owners/managers did explain to them why they should prune in a particular way, compared to seventy-three percent of workers interviewed at co-operative B. As far as workers' understanding of pruning instructions given to them is concerned, there does not seem to be a significant difference between the two co-operatives.

The overlap between instructions given to workers by management and their understanding of these instructions seem very low at both co-operatives, especially when it comes to instructions regarding the number of bearers per arm. Interestingly though, when it comes to instructions regarding the length of bearers, the overlap at both co-operatives is much higher. On seven of the ten farms which participated in the study at co-operative B and at eleven of the sixteen participating farms at co-operative A there was a 75% and higher overlap between management's instruction regarding the length of bearers and workers' understanding of this instruction. This could possibly be due to the fact that at both co-operatives farm owners/managers use a matchbox as a tool to illustrate to workers the length of bearers.
Few workers were aware of which cellar their farms' grapes go to or which classes they attained.

5.7. Workers' Skills and Training

The majority of management respondents at both co-operatives did not have unqualified trust that their workers have sufficient skills to effectively implement new vineyard practices without supervision. Rather than invest in more formal training courses though, the majority of those farmer owners and managers interviewed prefer strict supervision and repeated demonstration as means of compensating for the skills shortages amongst the workforce. However, a few (4 out of 16) respondents at co-operative A did identify further education and training, employing skilled contract workers and having skilled workers supervising those who are less skilled, as alternative ways of dealing with skills shortages. This does seem to indicate some acknowledgement amongst members of co-operative A of the importance of skills and training for the effective implementation of the correct vineyard practices.

At both co-operatives, training at the farm level is done at the discretion of the individual producer. Co-operative A however, has invested considerable resources in the training of cellar workers and the majority of the cellar workers have completed levels one and two of the SKHOP (Sekondêre Kelder Hulp Opleidingskursus)[78]. Most of the training done at farm level is on the job, informal training.

The majority of the farmers interviewed at both co-operatives though managed to obtain top grades for their grapes in 2004. Not only that, but the chardonnay of cellar A and the shiraz of cellar B also perform well relative to that of other wine-producing regions. It seems then that these two cellars still manage to produce wine which sells for a good price relative to other regions even though very little time and financial resources are invested in the formal training of workers. Length of service was presented by farm owners/managers as an advantage. Farmers at both co-operatives also seem to prefer permanent labour for the execution of crucial vineyard practices like pruning and suckering.

This coupled with the fact that a number of farmers and managers at both cellars prefer supervision as a way of dealing with skills shortages amongst their workers could be an indication that workers have acquired significant experience in working according to a "formula". Through strict supervision, farmers and managers are consistently monitoring that they adhere to this formula. The degree of overlap between farmers' instructions and workers'

[78] Secondary Cellar Assistant Training Course.

understanding of certain pruning practices, i.e. number of bearers per arm, is very low at both co-operatives. This could be an indication that workers are carrying their tasks out in a perfunctory fashion and are therefore not able to explain their tasks to a third party. Workers would thus not necessarily have the skills to be able to apply their own "discretion" when it comes to a scenario which falls outside the scope of the 'formula'. This situation could be rectified with more formal training. Although formal training at farm level does not seem to be a priority at either co-operative, those workers interviewed at co-operative A seem to be more optimistic about their chances of receiving formal training than those interviewed at co-operative B.

5.8. Cellar Strategy and Management

As was alluded to before, co-operative A seems to be much further ahead than co-operative B on the road to restructuring the cellar to more effectively meet the demands of the global wine market. It is only very recently that co-operative B embarked on a renovation programme to upgrade cellar technology and add to the number of tanks for the sake of class differentiation. Co-operative A on the other hand, commenced the renovation and upgrading of its cellar ten years ago, (i.e. in 1996). Co-operative A's business philosophy is "There is no room for surprises" and all decisions are based on this philosophy. Co-operative B on the other hand seems hesitant to venture onto the open market and at present still prefers to maintain its relationship with Distell. In the words of the managing director of this co-operative, "I don't want to gamble with my members' future".

Eighty percent of co-operative B's wine is sold in bulk to Distell and less than one percent is bottled and sold at the cellar. It is only since last year that the co-operative has made an attempt to create a closer match between Distell's demands and the grapes produced. The co-operative will now be able to determine which Distell label a particular block is destined for. Co-operative A, unlike co-operative B, has invested considerable resources in establishing an effective marketing system.

Members of co-operative A, although generally happy with the co-operative's strategic direction, had a host of suggestions on how the strategy could be improved upon. Some of these included expanding cellar technology, marketing and the on-site appearance, building on international alliances and innovation, developing icon/ flagship wines, becoming environmentally friendly and keeping up to date with the wine industry whilst keeping all finances in order. These

suggestions indicate that members of co-operative A, or at least those who were interviewed, are very much in tune with the demands of the international wine market. Members of co-operative B were generally pleased with the co-operative's strategic direction. Interestingly, some of the members felt that the relationship with Distell's should be maintained, which could explain the co-operative's slightly more 'cautious' approach to the open market. The differential in the payment system for different grades of grapes is a great concern for members of both co-operatives. This is an issue that cellar management needs to address as it has important implications as far as the incentive for the production of quality grapes and the investment in training and skills development are concerned.

There do not seem to be significant differences between the two co-operatives in terms of their awareness of the need for quality production, the profile of the workforce and their approach to training, at least as far as on-farm training is concerned. Training is mostly done on-farm by the farm manager or farm owner. Not a lot of resources have thus far been invested in formal, accredited training by an external training provider. Despite this though, the majority of farms studied at both co-operatives achieve top class ratings for their wine. Moreover, both co-operatives also compare favourably to other wine-producing regions in terms of the prices fetched for their chardonnay and shiraz wines respectively. It does seem that the extensive work experience of workers on these co-operative farms, coupled with repeated demonstration and strict supervision, ensure that workers adhere to a formula for how vineyard practices are to be carried out. This suggests that workers might not necessarily be equipped to apply their own discretion to a situation in the vineyard which might fall outside of the ambit of this standard formula. Workers might therefore benefit from further training, especially training to assist them to broaden their understanding of the physiology of the vine and how to manage all the different aspects of the canopy to ensure maximum health and thriving of the vine. Further training could also reduce the need for constant supervision, which would leave the farm owner or manager free to concentrate on other aspects of the business.

Chapter 8: Training Situation at Private Cellars and Estates – Analysis and Interpretation of Data

1. Introduction

Data was collected at two private cellars and two private estates, one private cellar and one estate in the Robertson area and one private cellar and one estate in the Paarl area. This was done to compare and contrast these private cellars and estates in terms of their perception of quality production, their vineyard practices and their training regimes in order to get an idea of how the skills and knowledge needed for quality production are diffused to workers employed at each.

This chapter will analyse the data collected in three broad sections. Firstly, it will provide a brief overview of each of these units in terms of their production, vineyard practices and the "quality" of their wines as indicated by the price categories in which their wines are sold and their performance in different wine competitions. Section two will present and discuss the data collected through the interviews with the farm managers and the viticulturists. Section three will focus on the findings of the worker interviews.

2. Private Cellar A (Robertson)

About the Private cellar

Private cellar A is located in the Robertson area. It is one of four farms owned by this family. It was established in 1983 and has 189 ha under wine grapes. Approximately one thousand tons of grapes are produced in the private cellar's own vineyards[79]. Varietals include cabernet sauvignon, merlot, pinotage, shiraz and chardonnay. The private cellar produced 1400 tons of wine in 2004 of which 55% was red, 25% white and 20% MCC[80] (Platter, 2005). Private cellar A is equipped with the most advanced equipment and technology and also has a bottling plant which, according to the private cellar management, ensures that "the team controls wine production from vineyard right through to the bottled product" (website). The private cellar is well-known for the quality of its wines and according to the assistant farm manager, it sells 20% of its wines in the basic category, 20% in the premium category, 55% in the ultra-premium category and 5% in the icon category[81]. Their wine is exported to nineteen countries (Platter, 2005). According to the assistant farm manager, their most important export markets are the United Kingdom and the United States.

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79 Interview with assistant farm manager
80 Méthode Cap Classique
81 Personal interview

Vineyards and Practices

Wines which go into this private cellar's range of wines are produced from grapes which are sourced from the four farms owned by the family. This means that it is possible to assume a consistent commitment to implement the correct vineyard practices across the four farms. Twenty-eight percent of the 189ha of the farm in Robertson is devoted to chardonnay grapes, 23% is under shiraz and 13% under cabernet sauvignon. A small percentage is devoted to sauvignon blanc, viognier, Muscat de Alexandrie, sangiovese, pinot noir, merlot, cabernet franc, ruby cabernet and pinotage. An extensive vineyard renewal programme was implemented on all four farms which resulted in premier red and white varietals being planted on all farms. An important element of this renewal programme was to carefully match specific terroirs (micro-climates and different varieties of soils) with specific varietals thereby improving the quality of grapes produced. Another important vineyard practice is the scientific monitoring of irrigation. Neutron probes are used to monitor moisture levels because of the dry, cool climate. This is used "to determine field capacity in terms of irrigation, thereby ensuring correct yields required for small berries with optimum flavour levels" (website).

Awards

Awards are important as they are a form of recognition by the rest of the wine-making world of a particular cellar or estate's wine-making capabilities. As such they are one indicator of quality. This particular private cellar has won an impressive array of awards over the last few years. In 2004 it won two gold medals at the eighth International Michaelangelo awards. It was also recognised for the quality of its wine in the September 2004 issue of Decanter, an international wine magazine. In 2005 it was also awarded the following medals: a gold at the Santé Classic Trophy 2005, a silver medal at the 2005 Michelangelo Awards, a gold at the 2005 Veritas, a best in Class Silver at the International Wine and Spirit Competition (IWSC) 2005, another gold at the 2005 Michelangelo Awards, a seal of approval at the 2005 International Wine Challenge 2005 and a "highly regarded" rating at the 2005 Wine

3. Private Cellar B (Paarl)

About the Private cellar

Private cellar B is located in the Paarl area. It is a family-owned business and has been in the hands of this particular wine-making family for three generations, since 1937.

This farm stretches over 150ha on the South-western slopes of the Paarl Mountain, with 125ha

being under vines. In 2004, the private cellar produced 1800 tons of grapes of which 80% was red, 15% white and 5% rose (Platter, 2005). This private cellar's wine is doing very well, both in the local and international wine markets. In the local wine market the price of its wines ranges from R30 a bottle to R100 and above. Locally it sells 50% of its wine in the premium and super-premium range, 30% in the ultra-premium range and 20% in the icon range[82]. In the international market, it sells 50% of its wine in the premium range, 30% in the super-premium and and 20% in the ultra-premium range.

Vineyards and Practices

The farm's vineyards are spread across a wide variety of terroirs, from granite soils on the slopes of the Paarl mountain to more sandy soils further down. Most of the farm is planted under red varieties, i.e. shiraz, pinotage, mourvèdre and sangiovese. The farm introduced yield control seven years ago and also uprooted and replanted a number of cultivars. It planned to uproot merlot in 2005 as the terroir is not suitable for this cultivar. One of the outstanding characteristics of this particular private cellar is the spirit of innovation of the owner in experimenting with different terroirs in order to produce different styles of wines. To this end the private cellar sources grapes from a diversity of areas across the Western Cape. The owner has acquired three other properties, the grapes of which are used to produce some of the wines in the cellar's wide range of wines. These farms are located in the Swartland, the cooler Darling area and Firgrove, which is part of the prime red-winegrowing area in the foothills of the Helderberg mountain in Stellenbosch (website).

In addition to the farms owned, grapes are also sourced from viticultural areas such as the Perdeberg in the Agter-Paarl area, Bottelary and Durbanville. Grapes are also sourced from areas as far afield as the Piekenierskloof in the mountains of the Olifants River district and the Upper Langkloof area which separates the Garden Route from the Karoo.

All these arrangements put the owner of private cellar B in a position to acquire the widest possible range of cultivars and the best quality grapes planted on markedly different terroirs. Private cellar B's owner has unquestionably become a pioneer amongst his peers in his ability to respond to the demands of the market for diversity and innovation.

[82] Personal communication with the marketing manager

Awards

Some of the awards that this private cellar has won include a gold at the 2005 Concours Mondial de Bruxelles, a silver at the 2005 International Wine and Spirit Competition (IWSC) 2005, a bronze at the 2005 International Wine Challenge 2005 and the Seal of Approval at the 2005 International Wine Challenge.

4. Estate A (Paarl)

About the Estate

Estate A is situated in the Paarl Area. It was established in 1989 and forms part of the successful Pearl's Gate mini-wine region. This particular estate is one of two farms which lie adjacent to each other and stretch over 415 ha. Of the 415 ha, 95ha are under wine grapes and approximately 50 ha are under table grapes, plums, apricots and citrus which are grown for the export market (website). In 2004 total production was 420 tons and 28 000 cases of which 60% was red and 40% white (Platter, 2005). The private cellar has a basic wine range and a premium range. Seventy percent of the estate's wines are sold in the basic price range and thirty percent in the premium price range of the market[83]. According to the estate's viticulturist their most important export markets are the Netherlands and Belgium.

Vineyards and Practices

The 95ha of wine grapes consist of chardonnay, sauvignon blanc, Weisser Riesling, SA Riesling, chenin blanc, cabernet sauvignon, merlot, pinotage, gamay noir and shiraz. In terms of terroir, the soil on the farm consists mainly of decomposed granite and because the farm is located in between two valleys, it has a cool microclimate. The area has an annual rainfall of approximately 600 mm and only a small proportion of the wine grape vineyards are under irrigation (website). The farm introduced yield control for the first time in the last five years in its quest to produce better quality grapes.

Awards

As mentioned earlier, this private cellar forms part of the successful Pearl's Gate mini-wine region. This region is the only mini-region in the world to have won two consecutive Vinexpo awards for the best Cabernet Sauvignon and Shiraz in 2001 and 2003 (Van Wyk, 2005). The following are some of the medals which estate A has won: a bronze at the 2005 Veritas awards,

[83] Interview with private cellar's viticulturist

a silver at the 2004 Veritas awards, a bronze at the 2005 International Wine and Spirit Competition and a silver medal at the 2005 Michelangelo Awards.

5. Estate B (Robertson)

About the Estate

This estate is situated in Robertson and is one of the oldest estates in the area. It is a family owned business and has been in the family for six generations. This estate is famous for its Red Muscadel and for years this was the only wine produced. In 1987 the wine range was expanded to include Chardonnay, in 2001 Sauvignon Blanc was added and in 2002 the first red wine, a Cabernet Sauvignon, was added to the list. The estate stretches over 250 ha with 137ha devoted to wine grapes. The estate has an annual average production of 2000 plus tons. In 2004, 2040 tons of grapes were produced (Platter, 2005). Fifteen percent of total production is bottled (Wineland, 2005). The estate only started exporting its wine in 2001 and then it only exported to the Netherlands and Sweden. It currently exports 60% of its wine to ten countries with the United Kingdom being their biggest market (Wineland, 2005). It sells 100% percent of its wine in the basic category[84].

The last few years have seen a renewed focus on the expansion of the wine portfolio and the marketing of the wines. In 2003 it released three new wines and a new range. After doing their marketing through a

Vineyards and Practices

In terms of terroir, the vines are planted on a cool southeastern slope which provides shade and prevents the grapes from being burnt by the afternoon sun. The soils are rich in lime and have a high pH. This produces good acidity in the grapes and promotes concentrated sweetness. The noble cultivars are picked at lower sugar levels. Water, which comes from the mountain streams, is sometimes used to irrigate the vines[85]. The farm's vineyard practices have been altered in the last five years in order to improve the quality of the grapes. The practices which have changed the most include planting of the young vine, especially spacing. Suckering was introduced for the first time in 2000.

[84] Conversation with assistant to the marketing manager
[85] Estate website

Awards

This estate has won an impressive array of awards over the last few years, though mostly for its Muscadel wine. These include three silver awards at the Muscats du Monde in 2002, 2003, and 2004. The estate also won a silver medal for its Chardonnay Select at the Chardonnay of the World Competition in France in 2002. It won a silver, bronze and two gold medals at the International Wine and Spirits Competition in 1990, 1995, 1998 and 2003. It won two silver medals, one in 2003 and one in 2005, at the Michaelangelo Awards. These are to name but a few of the awards the estate has won over the last two decades.

6. Presentation of Research Results

6.1. Views of Private cellar viticulturist/farm manager

Quality Wine and Means of Achieving Quality

The viticulturist or the farm manager in cases where there is no permanent viticulturist employed by the private cellar or estate, was asked to define what they consider to be a quality wine. The general consensus was that a quality wine is very much about subjective perceptions, what tastes good to different people, but also that quality wine depends on quality grapes (see Table 18). Not surprisingly then, all four respondents agreed that vineyard practices, especially suckering and harvest control, are the key to achieving quality wine. Interestingly, only the farm manager at private cellar A mentioned the importance of good human relations for the achievement of quality wine (see Table 18).

Table 17 : What is quality wine?

Private cellars		Estates	
Private cellar A	Quality is driven by the market because people's perceptions are different	Estate A	Good shelf life (red wine) and a wine that tastes good, one that is easy to drink. Vineyard practices are important for achieving quality wine.
Private cellar B	Quality grapes are important, can't make quality wine without quality grapes.	Estate B	A nice tasting, easy to drink wine that is also affordable.

Table 18 : Means of achieving quality wine:

Private cellars		Private Estates	
Private cellar A	Best vineyard practices, stay on top of technology, human relations are also important	Estate A	Vineyard practices are important for quality wine.
Private cellar B	Vineyard practices are important for quality wine (suckering and harvest control).	Estate B	Vineyard practices, especially pruning are important.

Short-term Vineyard Practices

Harvest control was identified by private cellar A as the vineyard practice which has changed the most over the last five years (see Table 19). Estate A also identified harvest control as the vineyard practice which has changed the most during this period. Private cellar B highlighted pruning and estate B identified the planting of the vine, correct spacing, irrigation, as well as suckering as the practices which have changed the most. Problematic short-term practices (see

Table 20) are soil management and suckering for private cellar A and estate A. Private cellar B and estate B do not experience any of the short-term vineyard practices as problematic.

Table 19 : Which short-term practice has changed the most over the last 5 years?

Private cellars		Private Estates	
Private cellar A	Pruning	Estate A	Harvest Control
Private cellar B	Started doing harvest control seven years ago.	Estate B	Way of planting the vine, correct spacing and irrigation as well as suckering. Did not sucker before.

Table 20 : Problematic Short-term Practices

Private cellars		Private Estates	
Private cellar A	Soil management, the things that we can't control	Estate A	Suckering – you struggle if you leave it too late.
Private cellar B	None, except when the weather conditions change.	Estate B	None

Workers' Skills

Respondents were asked whether they were confident that their workers had sufficient skills to implement new vineyard practices effectively (see Table 21). Private cellar A and B gave an unqualified yes to this question, while estate A and estate B said yes, but added that workers need to be supervised. When asked which specific skills are lacking, the viticulturist at estate A's response was "speed is lacking". He deals with the lack of this particular skill by motivating his workers. According to the farm manager at estate B, some of his workers, even the permanent ones, lack certain skills. The farm intends to provide training in the future to deal with this lack of skills. He did not elaborate on exactly which skills are lacking.

Table 21 : Does work force have sufficient skills to implement vineyard practices effectively

Private cellars		Private Estates	
Private cellar A	Yes	Estate A	Yes, but with supervision
Private cellar B	Yes	Estate B	Yes, but with supervision

External Training Provider and Funding

The farm managers and viticulturist at the private cellars and estates were probed about their perception of the training needs in the area and specifically whether or not they thought there is a need for an external training facility in the area. The responses are recorded in Table 22.All four respondents agreed that there is indeed a need for an external training facility in the area. Respondents acknowledged that there is a shortage of skills amongst vineyard workers. They felt there is a need for an external training provider, because they do not always have the time to train their workers, especially contract workers. This points to an awareness amongst respondents about the importance of skills training, especially in a dynamic industry where practices and technology are constantly changing.

Table 22 : Reasons for the need of a training centre in the area.

Private cellars		Private Estates	
Private cellar A	Many of the courses are lengthy, it is far to travel and there are not always sleeping over facilities	Estate A	There is a shortage of skills (especially pruning and suckering) specifically for contract workers and also "touch up" courses for permanent workers
Private cellar B	Not enough training providers. Training plays an important role, practices and technology are constantly changing and one does not always have time to train workers in these new practices and technology.	Estate B	It will be good for the whole region. All workers could benefit from it.

All the respondents, except the viticulturist at estate A, were convinced that the private cellar or estate would be willing to contribute towards the financial support of such a training facility. Respondents were also asked whether or not they had made use of the opportunity to claim money back from the AgriSETA for training conducted. Both private cellars have claimed money back from the SETA. Estate B has not claimed money back from the SETA and the viticulturist at estate A was not sure whether or not the farm had claimed money.

Future Strategy of the Private cellar

Respondents were asked to describe the future strategy of the private cellar. Quality was the focal point of each interviewee's description of the strategy of the private cellar (see Table 23). Both the private cellars and estates are aware that the only way for them to survive in this new era is by constantly improving the quality of their wine. Again, private cellar A also pointed to the importance of maintaining good human relations as part of a successful strategy.

Table 23: Future Strategy of the Private cellars/Estates

Private cellars		Private Estates	
Private cellar A	To deliver quality grapes, to maintain good human relations and to be cost effective	Estate A	We strive for the best quality wine, every year is different.
Private cellar B	Very much focused on quality. We strive to constantly improve the quality of our wine. The better the quality of the wine, the more money we make and the better you can pay your workers.	Estate B	Focus on quality, new cultivars and exports.

6.2. Workers' Profile

Table 24: Gender of Respondents

Farm Name	Gender	No.
Private cellar A	Female	6
	Male	5
	Total	11
Private cellar B	Female	4
	Male	3
	Total	7
Estate A	Female	4
	Male	1
	Total	5
Estate B	Female	3
	Male	4
	Total	7
	Overall Total	30

Females constituted the majority of the respondents interviewed, except at estate B where only three of the seven respondents were female. Seventeen of the thirty workers interviewed, were female. Their job categories and job status are recorded in Tables 25 and 26respectively.

Table 25: Job Categories of Respondents

Farm Name	Job Category	No.
Private cellar A	General worker	4
	Specialist worker	5
	Supervisor	2
	Total	11
Private cellar B	General worker	6
	General worker with specialist task	1
	Total	7
Estate A	General worker	4
	Specialist worker	1
	Total	5
Estate B	General Worker	5
	General Worker with Specialised Tasks	1
	Supervisor	1
	Total	7
	Overall Total	30

The majority (21/30) of the respondents were classified as general workers, which means that they are responsible for general tasks such as pruning, suckering and other vineyard work. However, their duties could also include tasks such as pest control or irrigation (general workers with specialised tasks) as very few farms have a detailed, well-structured job grading system. In fact in this case, only private cellar A had a very well-structured job grading system. Six of the twenty-three respondents were classified as specialist workers, meaning that they are tractor drivers responsible for chemical and pesticide spraying or they could be irrigation workers. Three of the respondents were supervisors.

Table 26: Job Status of Respondents

Farm Name	Job Status	N
Private cellar A	Permanent	11
Private cellar B	Permanent	3
	Casual - contract	4
Estate A	Permanent	5
Estate B	Permanent	7
	Total	30

The sample was biased towards permanent workers as twenty-six of the thirty respondents were permanent workers. This is due to the fact that the workers employed at private cellar A and estate A are workers employed by a contractor and paid at a piece-rate. This made it impossible for them to participate as interviews were conducted during the working day.

Table 27: Average Number of Years Employed on the Farm

Farm Name	Average Years of Employment on Farm
Private cellar A	6
Private cellar B	10
Estate A	7
Estate B	10

The average number of years that workers have been employed on the farms (see Table 27)are six for private cellar A, seven for private cellar B, five for estate A and ten for estate B. In the case of estate B some of the workers' families have been living and working on the farm for two to three generations[86]. The average number of years of service is quite high (more than five years for all private cellars and estates), but slightly lower than that for the co-operative private cellars (ten and twelve years respectively).

[86] Estate website

Table 28: Highest School Grade Completed

Farm Name	Average Highest School Grade Completed
Private cellar A	6
Private cellar B	7
Estate A	5
Estate B	4

The average highest school grade completed amongst the sample was grade 6 (standard 5) for private cellar A, grade 7 (standard 6) for private cellar B and grade 5 (standard 4) for estate A (see Table 28).

Table 29 : Ability to Read

Farm Name	Ability to Read	N
Private cellar A	Yes	10
	No	1
	Total	11
Private cellar B	Yes	7
Estate A	Yes	3
	No	2
	Total	5
Estate B	Yes	4
	No	3

Table 30 : Ability to Write

Farm Name	Ability to Write	N
Private cellar A	Yes	8
	No	3
	Total	11
Private cellar B	Yes	7
Estate A	Yes	3
	No	2
	Total	5
Estate B	Yes	4
	No	3
	Total	7

Literacy amongst the sample, as indicated by their ability to read and write, seems quite high (see Tables 29 and 30). Twenty-four of the thirty (80%) workers interviewed indicated that they are able to read and twenty-two (73%) indicated that they are able to write. The literacy levels for the estates however are relatively low (60% for estate A and 57% for estate B) compared to that of the workers at the private cellars (73% for private cellar A and 100% for private cellar B). The level of education and literacy amongst the sample of workers interviewed at the private cellars are also slightly higher than that of those workers interviewed at the co-operative cellars.

6.3. Vineyard Practices

Which Practice Has Changed The Most Over The Last Five Years?

Respondents were asked to identify the vineyard practices which have changed the most over the last five years and the results are recorded in Table 31. Pruning and suckering are consistently highlighted as the vineyard practices which have changed the most over the last five years. This is the case for both private cellars and for estate A. Trellising and planting of the young vines were also identified by some respondents as practices which have changed significantly. Interestingly, five of the seven workers interviewed at estate B said that nothing has changed over the last five years and two said they don't know. This is not consistent with the farm manager's response to the same question. He listed planting the vine, correct spacing, irrigation

as well as suckering as practices which have changed significantly over the last five years. This could be a case of workers' memories failing them or new practices not being communicated to workers in an adequate manner. The fact that the literacy level of the workers at estate B is very low (57%) might also be a contributing factor.

Table 31: Which practices have changed the most over the last five years

	Private cellars		Private Estates
Private cellar A	Irrigation has changed a lot.	Estate A	None
	Way in which we plant the young vine has changed the most, the way we make the hole for example. Pruning and suckering have also changed a lot, before we used to leave a lot more grapes.		Prune differently every year, depends on the age of the vine.
	Pruning and suckering change every year, we do not prune and sucker the same every year.		Pruning changes from year to year, depending on the age of the vine and the season.
	Pruning changes every year.		Don't know
	Don't know, mostly involved with irrigation.		Don't know, I have only been working on the farm for a year.
	Have only worked in the vineyard for three years, but pruning changed this year.	Estate B	Don't Know
	Trellising		Nothing
	Trellising and planting the young vine.		Nothing
	Trellising and pruning.		Nothing
Private cellar B	Start pruning earlier		Nothing
	None		Don't Know

	None, but yield control is monitored strictly		Nothing
	Suckering, harvesting, especially suckering, we never used to sucker a lot before.		
	Spraying started one season ago to spray to get the colour of the vines correctly - pruning has also changed		
	Suckering, sucker a lot more now. Pruning has also changed a lot, these days we have to know exactly how many bearers we have to leave per arm.		
	Have only been working in the vineyard for two years.		

6.4. Focus on Pruning

As with the analysis of the co-operative cellar data, pruning is again singled out for in-depth analysis, because pruning is one of the pivotal vineyard practices in terms of quality production. On a number of occasions farmers and viticulturists pointed out that if pruning is done correctly the need for other practices like suckering and yield control for example is diminished.

Respondents were asked whether or not the viticulturist or farm manager explained to them why they should prune in a particular way (see Table 32). The number of yes responses was quite high for both private cellars. At private cellar A, seven of the eight workers who answered this question said yes the viticulturist/farm manager did explain to them why they should prune in a particular way and at private cellar B five out of six said yes. At estate A, three out of four said yes and at estate B three out of five said yes while two did not answer this question. They were also asked what reasons were given to them by the viticulturist for why they should prune in a particular fashion. Table 33 lists some of the reasons given.

Table 32: Whether viticulturist/farm manager explain why pruning should be done in a particular way

Farm Name			No.
Private cellar A		Yes	7
		No	1
		Total	8
		Missing	3
	Total		11
Private cellar B		Yes	5
		No	1
		Total	6
		Missing	1
	Total		7
Estate A		Yes	3
		No	1
		Total	4
		Missing	1
	Total		5
Estate B	Yes		3
	No		2
	Total		5
	Missing		2

Table 33: Reasons for pruning

	Private cellars		**Private Estates**
Private cellar A		**Estate A**	
	If you leave too many bearers, the plant will have too many grapes and it could damage the young vine. Spacing is important to let through enough sunlight and wind.		The vine grows easier and easier to spot diseases.
	Don't know		Depends on the age of the When the vine is younger, leave fewer bearers, when the is older you leave more bearers
	Quality Grapes		Renewal
	For spraying of insecticides. Prune for quality grapes, if there are too many bearers, we get too many grapes and the quality of the grapes is bad.	Estate B	Can't remember
	Spacing is important so that shoots do not grow on top of each other.		Must leave enough bearers so the vine does not have to carry many bunches.
	Renewal. Must leave enough space so as to prevent the grapes from rotting		To get nice berries by harvest ti
	For Quality		
Private cellar B			
	Better spacing for better distribution of insecticides		
	Depends on the growth of the vine		
	Don't remember		
	For better quality grapes		

	So that the plant can get enough wind		
	We have been pruning like this for years		

It seems that there is more of an awareness of why pruning is important amongst the respondents from the two private cellars than amongst those from the co-operative cellars. Quality of grapes for example was mentioned more often as a reason for why pruning is important. There was also a greater understanding of the importance of certain pruning practices, e.g. correct spacing in terms of ensuring optimal health of the plant. The reasons given for correct spacing for example included the prevention of diseases, also to let through enough sunlight and wind for optimal ripening of fruit. The answers of those workers employed at the two estates also show an awareness of the importance of pruning for the overall well-being of the vine. Workers from estate B again, however, answered this question very poorly. Only two of the seven gave reasons, while one response was a "don't remember" and two did not answer this question.

As was the case with the respondents from the co-operative cellars, viticulturists or farm managers at the private cellar were asked what they tell their workers about certain vineyard practices and workers were then asked the identical questions. This was done to get some idea of whether or not workers understood the instructions given to them. The results for the number of bearers per arm are recorded in Table 34.

Table 34: Number of Bearers Per Arm

Farm Name	Average Highest Grade Completed	Overlap[87]
Private cellar A	6	87.8%
Private cellar B	7	100%
Estate A	5	66.6%
Estate B	4	16.6%

[87] We asked viticulturists and farm managers what they tell their workers about certain vineyard practices and asked workers identical questions. If the answers of all workers interviewed on a particular farm were identical to that of the viticulturist or farm manager, this would translate into a 100% overlap, if the answers of only three out of four workers were identical to the viticulturist or farm manager this would translate into a 75% overlap, etc

Table 35: Length of Bearer

Farm Name	Average Highest Grade Completed	Overlap
Private cellar A	6	Farm Manager: Matchbox Workers:88% overlap
Private cellar B	7	83.3%
Estate A	5	100%
Estate B	4	60%

With regard to instruction regarding the length of the bearer, the overlap was high for private cellar B (83.3%) (see Table 35). At private cellar A there was no overlap between the instructions given to workers and their interpretation thereof. The viticulturist uses a matchbox as a measure whereas the majority of workers interviewed use two shoots as a measure of the length of the bearer. There was however an 88% overlap amongst workers regarding the length of the bearer. Estate A showed an overlap of 100% on this instruction, whereas estate B again showed the lowest overlap (60%).

6.5. Training

Workers were asked whether they have received any external training, i.e. training from anyone other than the viticulturist or the farm manager. In terms of general viticultural training, only worker respondents from private cellar B indicated that they have received training in viticultural practices other than pest control over the last five years (see Table 36). Seven out of the eleven workers interviewed at private cellar A have received pest control training over the last five years. Only one worker at estate A has received pest control training over the last five years. Three workers at private cellar A have also gone on an irrigation course.

Table 36: Viticultural Training

Farm Name	Trellising	Pruning	Suckering	Canopy Control	Harvest Control	Pest Control
Private cellar B	3[88]	3	4	2	2	5

Workers at private cellar A have however gone on a host of other training courses, some of which are not necessarily linked to viticulture. These include tractor driving and maintenance, "complete woman", health and safety, "free to grow" (life skills course), mentorship and supervision, management and leadership, integrated production of wine (IPW), and a course on understanding overseas markets. The fact that workers interviewed at private cellar A have not gone on much training in other viticultural practices, is probably a function of the sample. As mentioned before, unlike the other private cellar and the estates and many others in the industry, private cellar A has a very clearly-defined job classification and grading system. The majority of those interviewed were specialist workers (irrigation, pest control, tractor drivers, supervisor, etc.) rather than general viticulture workers. Three of the seven workers interviewed at estate B indicated that they have received training in pruning methods and one received tractor driving and maintenance training. The rest have not received any formal[89] training over the last five years.

All workers at private cellar A who have gone on training courses received certificates for the training done. Workers at private cellar B indicated that they were still waiting for their certificates from the training provider. The one worker at estate A who went on the pest control training course did receive a certificate. The viticultural training provided to workers at private cellar B was conducted by the Vineyard Academy, while independent consultants provided training to workers at private cellar A. Future training aspirations include more training in general viticulture, electricity, plumbing, how to lay irrigation pipes, tractor driving, first aid, etc. Training in general viticulture is however the most popular choice with twelve out of the twenty-three workers interviewed, expressing the desire for more training in general viticulture.

[88] These are out of the seven workers interviewed
[89] Training by an external training provider

7. Comparing the Private Cellars and Estates

There is an awareness of quality amongst the workers employed at the private cellars This was particularly evident in the reasons given by workers to the question of the importance of pruning in a specific manner. Some of the answers were certainly more "sophisticated" and better articulated than those received from workers at the co-operative cellars. Workers were for example more aware of the effect of certain pruning practices, e.g. correct spacing, on the overall well-being of the vine and the quality of grapes produced. Workers employed at the estates, especially estate B were however, not as articulate in their responses to these questions. This could possibly be due to a communication gap between workers and the farm manager. The low literacy levels of workers at estate B could also be a factor.

When it comes to the farm managers and viticulturists' faith in the skills of their workers, both private cellar A and B are confident that their workers have the necessary skills to implement vineyard practices necessary for quality production effectively. The viticulturist and farm manager at estate A and B however were not as confident and said that supervision is needed. The farm manager at estate B did however, indicate that they plan to provide their vineyard workers with more formal training in the near future.

The farm managers and viticulturists also acknowledge the importance of a well-trained and skilled workforce in the quality era as evidenced by the fact that all four acknowledged that there is a need for a training centre to train vineyard workers in their area. However, not everyone was as committed to putting this acknowledgment of the importance of training into practice. The viticulturist at estate A for example was doubtful that the estate would be prepared to contribute financially to the establishment of such a training centre. Also, whereas workers at private cellar A and B have gone on a host of training courses, only one of the workers interviewed at estate A and three workers at estate B have gone on training courses in viticulture. The two private cellars are also engaging with the country's skills development system as evidenced by the fact that both have claimed money back from the SETA for agriculture, whereas the estates have not done so yet. Not surprising then, that the viticulturist and farm manager at the estates do not have that much faith in their workers' ability to effectively implement new vineyard practices.

It does seem that the private cellars, which have invested the time and resources into getting their vineyard practices in line with what is required for quality production, are performing "better" than the estates in terms of the price categories in which their wines are sold and the accolades

received from their peers. Furthermore, it also appears that they are going beyond a mere acknowledgment of the importance of skills training and development for quality production. They are prepared to invest the necessary resources into ensuring that their workforce obtains the necessary skills training and are also accredited for the training received.

8. Conclusion

There is a marked difference between the private cellars and private estates in terms of their level of advancement on the "quality" quest. The private cellars have made more progress in terms of implementing the correct vineyard practices for quality production, especially as far as the matching of cultivars and terroir is concerned. There is also greater acknowledgment of the importance of training and developing the skills of vineyard workers at the private cellars. The positive effect of this is evident in the price categories that their wines sell in and acknowledgments received from their peers in the form of prizes and medals at local and international wine competitions. The two estates on the other hand do not demonstrate the same commitment to training of vineyard workers, although there is acknowledgment of the importance of training. Estate B however, which has only recently decided to focus on the export market, is investing much time and resources into gearing itself for quality production. More formal training of vineyard workers forms part of the future plans of the estate.

Chapter 9: Conclusions, Theory and Recommendations

1. Introduction

This chapter discusses the main conclusions drawn from the research conducted at the two co-operative cellars, the two private cellars and the two estates. The conclusions relate to the central questions of this research project namely,

- How are co-operative farms and private cellars responding to the demand for quality wine?
- What skills and practices are required for quality?
- How do these practices and skills get diffused and transferred to workers? and
- Is there a difference between co-operative cellars, private cellars and estates with regards to the training of workers in these new skills and practises?

2. Conclusions

2.1. How are co-operative Farms, Private Cellars and Estates responding to the demand for Quality Production?

a. Co-operative Farms

The research found that the quality discourse has definitely taken root amongst the co-operative farms studied. Both co-operatives are actively gearing themselves towards quality production. This has resulted in restructuring at both co-operatives. The elements of the restructuring programme at both cellars include a more thorough focus on vineyard practices, which is evidenced by the appointment of a full-time viticulturist at each of the co-operatives. There has also been a revolution in the grading system of grapes at both co-operatives with block grading, rather than mere chemical testing, assuming greater importance. This has also impacted on labour practices. Although all of the farms studied make use of contract labour, there is a preference for the use of permanent labour when it comes to crucial vineyard practices such as pruning and suckering. This is because farmers acknowledge that contract workers do not always have the necessary skills or dedication to implement crucial vineyard practices effectively. This also points to an acknowledgement amongst farmers that skills are important for the effective implementation of vineyard practices required for the production of quality wine.

The payment systems at both cellars seem to be a contentious issue. A number of farmers/managers expressed dissatisfaction with the small price differential between different classes of grapes, specifically between the lowest and the highest classes. This could be a

disincentive for the production of quality grapes as quality production requires that the producer invests more in terms of time, labour costs, etc. This could also have a negative effect on skills development as farmers could feel that there is no need or incentive for training their workers. This could be one factor which has resulted in an attitude amongst some farmers/managers that their workers have "sufficient" skills for them to make do with and there is no need for upgrading their skills.

The two co-operatives studied are a microcosm of the bigger picture as far as co-operatives are concerned. They are an example of the uneven nature of the wine industry's response to the quality revolution highlighted by Ewert and Du Toit (2005). Co-operative A read the signs much earlier than co-operative B and embarked on their restructuring programme before co-operative B. As a result co-operative A has been in a position to make inroads into the international wine market, whereas co-operative B is more hesitant to venture into the open market and at this point still prefers to sell its wine in bulk to a producing wholesaler.

b. Private Cellars

The two private cellars studied seem to be much further on their way in terms of producing quality wine for the export market. Both are constantly improving their vineyard practices in order to respond to the needs of the market. Private cellar B, as part of its quest for quality production, introduced yield control seven years ago and embarked on an extensive uprooting and replanting programme. Private cellar A changed its pruning methods in the last five years. Experimenting with different terroir/cultivar combinations seems to be an important element of the strategies of these two private cellars. Private cellar B in particular source their grapes from a myriad of different locations and terroirs from all over the Western Cape. This allows it to produce different styles of wines and keeps it abreast of developments in the international wine market. Quality production is also one of the primary elements of the business strategy at both cellars.

c. Estates

The two estates studied have started to gear their vineyard practices for the production of quality wine. Estate A introduced yield control as part of its plan to produce better quality wine. Estate B changed their planting methods and also introduced suckering for the first time in the last five years. However, they are not as far advanced on this quest as the private cellars. Estate A sells seventy percent of its wine in the basic category and only thirty percent in the premium category.

Estate B only introduced chardonnay in 1987 and introduced other noble cultivars very recently. Sauvignon Blanc was only included in its list of wines for the first time in 2001 and cabernet sauvignon, the only red wine in the collection, in 2002. This cellar also only entered the export market for the first time in 2001 and only 15% of its wine is bottled. It currently sells 100% of its wine in the basic category. It is however, in the process of expanding its wine range. In addition, they have invested in the marketing of their wines and have upgraded their packaging and tasting facilities.

2.2. What skills and practices are required for quality production?

a. Co-operative Farms

The research found that although there is a preference for permanent labour when it comes to the execution of crucial vineyard practices like pruning and suckering, the majority of farmers/managers interviewed at both co-operatives did not have unconditional trust that their permanent workers have the necessary skills to implement vineyard practices required for quality production. The average years of service amongst workers at both co-operatives is quite high. Indications are that workers have become used to working according to a certain "formula", e.g. they should leave x number of bearers per arm and farmers/managers use strategies such as strict supervision and repeated demonstration to ensure that workers adhere to this "formula". Farmers/managers do not feel that their workers have enough skills and/or commitment to implement vineyard practices effectively in the absence of strict supervision.

Some workers at the co-operative farms were able to give reasons for why they should prune in a certain why. However, these answers did not reflect a deep knowledge and understanding of the impact of their actions on the quality of the grapes produced. They therefore do not posses the kind of skills or knowledge, i.e. discretion and a deeper understanding of the overall physiology of the plant, which Chiffoleau et al (2002) highlight as being necessary for the production of quality grapes for quality wine.

b. Private Cellars

The farm managers interviewed at both private cellars expressed confidence in their workers' ability to implement vineyard practices required for quality production effectively, without supervision. There seems to be a greater awareness amongst the workers interviewed of the importance of certain vineyard practices e.g. pruning in terms of the production of quality grapes, as evidenced by the responses they gave to the question concerning the reasons why they

should prune in a certain way. They also have a deeper understanding of the impact of certain pruning practices, e.g. correct spacing on the overall health of the vine, than workers at the co-operative cellars and the two private estates.

c. Estates

The farm manager and viticulturist interviewed at the estates were not very confident that their workers, including some of the permanent workers, had sufficient skills to implement new vineyard practices effectively. An added challenge at both estates is the fact that the literacy level of workers, especially those at estate B, are lower compared to those workers at the private cellars. The manager at estate B had little confidence that his workers possess the necessary skills to implement new vineyard practices, despite their long years of service.

2.3. How do practices and skills get diffused to workers?

a. Co-operative Farms

Formal training at farm level does not happen at either of the two co-operatives. The boards of both co-operatives have a policy of no interference when it comes to training at farm level. Training is thus done at the discretion of individual farmers. Training is done on-farm by individual farmers/managers. Farmers/managers at both co-operatives prefer repeated demonstration as one way of diffusing knowledge about vineyard practices required for quality production to workers. Supplementary training in vineyard practices such as pruning and suckering is done on request by the viticulturists at both celllars.

Farmers/managers at both co-operatives are not in principle opposed to off-farm training. The general feeling amongst those at co-operative B though is that if training does happen, it should be done at cellar level, in accordance with the cellar's guidelines. Six of the ten farmers/managers interviewed at cellar B were also favourably disposed towards the idea of a training centre for the Paarl region. Farmers/managers at cellar A were even more inclined towards the idea of a training centre for Robertson. Thirteen of the sixteen interviewed felt that there was a need for such a training centre in the Robertson area. However, it was not established whether there is a greater preference for training at cellar level or at a regional training centre.

A central question which arises from this is: given the fact that farmers/owners are not in principle opposed to the idea of formal training for their workers and given the lengths to which the government has gone in encouraging skills development and training through the Skills

Development Act and the SETA system, why are these farmers/managers not making formal training courses available to their workers? Is it a lack of will on the part of farmers/managers to train their workers, because if workers underwent accredited training this would mean the possibility of increased mobility amongst farm workers and with that demands for higher wages or, is it a case of a lack of awareness amongst farmers/managers about the institutional framework put in place by government and the incentives it offers to employers for skills development and training as well as a lack of information about available training facilities? Or are they aware of the system, but don't want to use it, because it is too cumbersome?

It might very well be a combination of both reasons. The data does point to a clear lack of awareness amongst farmers/managers about the Vineyard Academy. Only five of the sixteen farmers/managers interviewed at cellar A were aware of the Vineyard Academy and of those five, only one had made use of the services of the Vineyard Academy. The situation is even more dismal at cellar B with only one of the ten farmers/managers interviewed being aware of the existence of the Vineyard Academy. In the case of cellar A, only one farmer/manager had made use of the opportunity to claim money back from the SETA and fifteen had not. At cellar B, seven had not made use of the opportunity to claim money back from the SETA, whereas one said that he was not aware of the opportunity to claim money back from the SETA. Of all the farmers and managers interviewed at both cellars, only one claimed a lack of awareness regarding reimbursements from the SETA. This however, does not mean that the others have a thorough understanding of the sometimes very complicated framework put in place by the state to encourage skills development and training. What is clear though is that very few of the farmers/managers interviewed are engaging with the skills development and training system put in place by the government.

b. Private Cellars

Training is much more of a priority at the two private cellars than at the co-operative farms. Workers at Cellar B have been trained by an external training facilitator in a range of viticultural courses. Workers interviewed at Cellar A have gone on specialised training courses such as pest control and irrigation. In addition to these courses they have also gone on a host of other courses such as life skills training, health and safety courses, management and leadership, etc. Workers also received certificates for attending these courses. Although these courses are not necessarily linked to viticulture, they are indicative of a firm commitment to training on the part of the owners and management of Cellar A. This mindset is also reflected in the response of

management to the question of whether or not there is a need for a training centre in their respective areas.

Managers interviewed at both cellars agreed that there is a need for a training centre in their respective areas as they felt that there is a shortage of skills amongst contract workers especially. Moreover, they would also be prepared to contribute financially to the operation of such a training centre. Again, this is indicative of a realisation of the importance of training amongst the management at the private cellars. They are however not only acknowledging the importance of training, but have invested the necessary time and financial resources to ensure that their workers receive training. They are thus showing commitment to create the necessary conditions referred to by Chiffoleau et al (2002) for developing the skills required for quality production.

c. Estates

Formal training of vineyard workers is not a priority at the private estates studied. Training is mostly done informally on the farm by the viticulturist and the farm manager. Both the viticulturist and farm manager interviewed at the two private estates acknowledge that there is a lack of skills amongst their workforce. The viticulturist at estate A said that his workers lack "speed", while the farm manager at estate B did not elaborate on the specific skills which his workers are lacking. These estates are not engaging with the government's skills development and training framework. This is evidenced by the fact that estate A has not yet claimed money back from the SETA whereas the farm manager at estate B is not sure about this. Moreover, the viticulturist and farm manager were also not aware of the Vineyard Academy and the services it offers. The farm manager at estate B indicated that he is not aware of the training courses arranged by the Robertson Wine Valley either. This shows that the estates are not utilising the opportunities at their disposal to make training available to their workers. This could be due to a lack of awareness of these opportunities, a lack of will on the part of management to provide formal training or a combination of both factors. Estate B is however planning to do much more formal training in the future as part of their efforts to restructure and transform the business in their quest to find a space for themselves in the international market. This is indicative of an awareness on the part of management at estate B of the importance of training as an important component of any strategy to transform the business and produce quality wine in order to break into the international market.

2.4. Is there a Difference between Co-operative Farms, Private Cellars and Estates with regards to Training?

There is definitely a difference between the co-operative farms and private cellars studied as far as training is concerned. Although the co-operative farmers and those from the private cellars acknowledge that training is important, the private cellars seem to be more willing to take this a step further. The majority of those interviewed at the two co-operatives prefer on-farm training coupled with constant supervision and repeated demonstration as means of diffusing knowledge about new vineyard practices and skills to workers and to make sure that instructions are carried out. The private cellars do not only rely on on-farm training. They have also send their workers on training courses or have brought external training facilitators to the farm to train their workers in general viticulture practices. Workers at Cellar A have also benefited from other courses. These courses might not necessarily be linked to viticulture, but they are useful in building other skills sets, for example life skills, and boosting workers' confidence which can only have a positive effect on the execution of their work in the vineyard.

Unlike the co-operative farms, the private cellars have also made use of the opportunity to table formal skills plans and claim money back from the AgriSETA for training conducted. This shows that the private cellars are making use of the framework put in place by the government to encourage and facilitate training, whereas the co-operative farms are not doing this. It certainly seems that the additional training received by workers at the private cellars has had a positive effect on their understanding of vineyard practices. The workers interviewed at the private cellars were much more articulate in their description of vineyard practices and also gave much more "sophisticated" answers to the question concerning the reasons for why vineyard practices are performed in a certain way. They were able to relate these practices to the effects which they would have on the overall state of the vine.

The training regime at the two private estates is similar to that of the co-operative farms. As is the case with the co-operative farms, training at the private estates is mostly informal, on the job training conducted by the viticulturist or the farm manager. Similarly to the co-operative farms, the private estates are not engaging with the skills development and training framework put in place by government. Like the farmers/managers at the co-operative farms, the viticulturist and farm manager at the private estate farms make use of strict supervision to ensure that workers adhere to the instructions given to them.

3. The Evidence and the Relation to Theory

Three theoretical perspectives are used in this thesis, namely regulation theory, global commodity chain analysis and the ergonomics perspective as it relates to the question of the skills required for quality wine production. Regulation theory is useful in assisting to make sense of the restructuring of the global agro-food industry. The basic argument of this theory in relation to the agro-food industry is that each phase of capitalist accumulation is based on a distinctive food regime. The Fordist food regime for example was based on strong state regulation, agricultural subsidies and surpluses in the United States and Western Europe whereas the Post-Fordist regime is based on deregulation of agriculture, especially in the Third World and increased trade in agricultural produce. Under the new Post-Fordist food regime, "quality" has become the basis for competition compared to the Fordist food regime where competition was based on price and quantity. The thesis argues that the restructuring of the global agro-food sector is based on an uneven and contradictory process which produces new actors and new winners and losers. This contradictory process is marked by a simultaneous process of deregulation and re-regulation where the power to regulate has shifted from the state and public institutions to private institutions.

Supermarkets are increasingly setting the terms and conditions under which trade occurs and have assumed great dominance in defining insiders and outsiders. In this process, the notion of "quality" is used as a tool of exclusion. Chapter three of this thesis describes how the South African wine industry has had to restructure itself in order to compete in the international wine market. The quest for quality has definitely taken root at farm level. At co-operative level, the research has shown how both co-operatives have embarked on an intensive restructuring process, although Cellar A read the market signals considerably earlier than Cellar B. For example, Cellar A has invested greatly in technology, human resources, new cultivars and a long-term strategy to systematically improve the quality of wine produced. A total sum of R20 million has been invested in the upgrading and extension of the cellar over the last 12 years and the number of tanks in the cellar have more than doubled from 150 ten years ago to 350 currently. Cellar B has invested much time in resources in upgrading its cellar technology and has also changed its vineyard practices as part of its restructuring process. Both cellars have changed their grading systems in order to encourage greater quality of grapes. Cellar A has managed to make inroads into the international wine market, but Cellar B is still hesitant to venture into the international wine market and prefers to maintain its relationship with a local wine wholesaler.

The private cellars are investing much time and resources in their quest to achieve the quality demanded by the international wine market. Both have upgraded their cellar technology and are putting considerable emphasis on vineyard practices, specifically the correct matching of terroir and cultivar. Private cellar B in particular is going to great lengths to source grapes from different areas of the Western Cape Province in order to produce different styles of wine and to be at the cutting edge of innovation. Not surprisingly, these cellars have made great strides in breaking into the international wine market and both are selling fifty percent and more of their wine in the premium wine category and up. They can be considered one of the "winners" of the restructuring of the international wine market. The private estates on the other hand are lagging behind in terms of improving the quality of their wine. They have recently started introducing vineyard practices such as yield control and suckering in an effort to improve the quality of their grapes. Estate A only sells 30% of its wine in the premium wine range and Estate B sells 100% of its wine in the basic wine category and only 15% of its wine is sold on the international market. These two private estates have not managed to bring their wine up to a standard of quality which would enable them to fully exploit the opportunities offered by the restructuring of the international wine market. However, as said before, these two estates are not representative of the estate sector as a whole. If two other estates had been chosen, the results would probably have been different.

Global commodity chain analysis goes a step further than regulation theory in that it aids our understanding of how power is attained, maintained and where it is located in global commodity chains. Commodity chain analysis distinguishes between two different types of commodity chains, namely producer-driven commodity chains and buyer-driven commodity chains. Both are concerned with barriers to entry into the commodity chain. Within producer-driven commodity chains, large, transnational corporations are the lead agents and play the central role in coordinating production networks. Producer-driven commodity chains occur mostly in the capital and technology intensive commodities such as automobiles, aircraft, semiconductors and electrical machinery. Within buyer-driven commodity chains on the other hand, the main agents are large retailers, brand-named merchandisers and trading companies and they play the central role in setting up decentralized production networks in a variety of exporting countries, typically located in the Third World.

In buyer-driven commodity chains, such as the global wine commodity chain, the lead or main agents like supermarkets, mostly located in the North, are able to shape the division of labour

and define the rules and conditions of participation and barriers to entry, because they are in a position to define “quality” and set “quality standards”. This is facilitated through changing consumer demands and patterns away from standardised, mass produced goods to more diversified goods and niche markets. Branding and marketing play an important role in buyer-driven commodity chains. The lead agents in buyer-driven commodity chains have the lion’s share of power, control as well as profits in the commodity chain. Several studies have shown how this has important impacts at farm level as producers have to restructure practices in order to respond to these pressures in the commodity chain. Workers usually bear the brunt of this restructuring in the form of “flexible” production methods, the most significant of which is the increase in informal work. The study shows much of these trends. A greater emphasis on marketing and packaging form an important component of the business strategy of the co-operatives, private cellars and even the estates which were studied. Co-operative A for example has a private consultant who is responsible for the marketing of the cellar's wine and has also established a private marketing company that is responsible for the marketing of the cellars wine and manages it wines sales in the international market. The private cellars both have dedicated marketing personnel. Private estate B has also, as part of its move into the international market, appointed a marketing manager to manage the marketing of the estate's wine, whereas before this was done in partnership with another wine company.

Flexibility in terms of an increase in the use of contract labour has become a defining feature of the South African wine industry. The farms studied have a preference for the use of permanent labour for the execution of important vineyard practices like pruning and suckering, but other less sensitive viticulture practices are performed by contract labour on all the farms. Interestingly, international studies have found that contrary to what might be expected, the new quality demands from supermarkets and other lead agents do not necessarily translate into a greater emphasis on training and skills development at farm level. Dolan's (2004) study of the fresh vegetable commodity chain in Kenya for example found that greater demands from supermarkets in the North in terms of quality production and specific requirements for more sophisticated packaging and cooling processes did not translate into more training and skills development for workers. The majority of the workers who participated in Dolan's research study were performing unskilled work and the exporting firms confirmed that only about 10 to 25% of their workforce was engaged in skilled labour (Dolan, 2004: 8). The findings of this study do not support Dolan’s findings. At both the co-operatives and estates there is a greater awareness of the need to produce quality wine and this has translated into a greater emphasis on

the right vineyard practices. Through informal instruction, repeated demonstration and strict supervision farm owners/managers ensure that these practices are correctly executed. There is however not an engagement with the formal skills training system or efforts to ensure that vineyard workers acquire 'deep knowledge'. A concern with Dolan's analysis of the horticultural industry in Kenya is that she does not explicitly define what she means by "skilled" versus "unskilled" work which in a way limits the extent to which one can draw parallels between Dolan's findings and the findings of this research as far as skills training is concerned.

Actor-network theory is quite a useful theory in that it allows one to understand the relationships between various actors involved in the wine industry in the two regions studied, namely Paarl and Robertson and how these networks have allowed the Robertson wine district to become more innovative and successful in terms of improving wine grape production, especially red grape production. Robertson has for a long time had a reputation as primarily a brandy producer and has worked very hard to change this image. There seems to be greater cooperation in terms of knowledge and information sharing as well as sharing of viticultural expertise between producers in the Robertson area than between those in Paarl. This has paid off as Robertson has slowly transformed its reputation from largely a brandy-producing district to a serious wine-making district. Producers in Robertson have been working towards improving their production of red wine through the red wine renewal programme. This has had significant results. Data from SAWIS for the period 1995-2006 shows that although Paarl is still producing greater volumes of noble red cultivars, Robertson has shown greater growth in the production of noble red cultivars than Paarl during this period. The same spirit of cooperation and knowledge sharing is also evident in the mini-region of Pearl's Gate in Paarl, although this is not necessarily the case for the broader Paarl district. This mini-region has had signigicant success in the international wine market and has won several coveted international wine trophies.

The theory put forward with regards to the relationship between quality wine production and skills development, the central concern of this thesis, is that by Chiffolleau et al. Chifolleau et al argue that the era of quality wine production requires a new, "autonomous" vineyard worker. This worker must be able to go beyond a mechanical execution of vineyard practices, but should be able to exercise "discretion" in the vineyard. This means that he/she should possess the skills which would enable him/her to interpret the specific needs of each individual vine and decide independently on a course of action appropriate to the needs of the vine. Moreover, the "autonomous" vineyard worker should be able to interpret and manage correctly situations

which might arise in the vineyard which could be out of the "normal". This implies in-depth knowledge on the part of the vineyard worker and a thorough understanding of the physiology of the vine.

The questions which arise in relation to the evidence are:

1. Do workers at the farms studied receive this kind of "in-depth knowledge" and are they able to exercise discretion?
2. If not, is the lack of in-depth knowledge reflected in the quality of the grapes or wine?
3. If quality wine is achieved despite the lack of "in-depth knowledge" and ability to exercise discretion on the part of vineyard workers, what does it say about the theory?

The workers at the co-operative farms are most certainly not receiving the kind of in-depth knowledge that Chiffolleau et al deem necessary for the production of quality wine. The workers at the co-operative farms did provide answers to the question regarding the reasons given for why they should prune in a certain way for example. The answers however do not reflect the kind of in-depth knowledge of the physiology of the vine that Chiffolleau et al refers to. The training they do receive is informal instruction on how to perform certain vineyard practices coupled with repeated demonstration and strict supervision. Workers are also not able to exercise independent discretion in analysing specific conditions in the vineyard and deciding on appropriate measures to address these conditions. The co-operative farms are also not making use of the national skills development framework put in place by the government to facilitate skills development and training. Despite this, the majority of the farms achieve top grades for their wine at the cellar. More importantly, both co-operative cellars receive above average prices for their Shiraz and Chardonnay respectively, compared to the average price for their region and other wine-making regions in South Africa.

The private cellars on the other hand, dedicate much more time and financial resources to the training of workers. They also expressed unconditional trust that their workers had sufficient skills to implement vineyard practices effectively without supervision. In the case of the private cellars this investment in training is bearing fruit as both private cellars are doing exceptionally well in the international wine market. In the case of private cellar A, 20% of its wine is sold in the premium wine category, 55% in the ultra-premium category and 5% in the icon category. Private Cellar B sells 50% of its wine in the premium range, 30% in the super-premium range

and 20% in the ultra-premium range internationally. It is clear that training forms an important element of the private cellars' strategy to achieve quality wine. The workers interviewed at the private cellars were more articulate in their explanation of the importance of certain vineyard practices, e.g. pruning and why these practices had to be executed in a specific way. They also had a greater awareness than the workers at the co-operative cellars and estates of the effects of certain practices, e.g. suckering, correct spacing, etc. on the overall well-being of the vine. The farm manager at private cellar B, in a second interview[90], confirmed that in his view his workers do possess in-depth knowledge, because they are able to identify different diseases in the vineyard and are able to decide on the appropriate treatment of the vine. They are also able to work on their own, without supervision, much of the time. In the case of the private cellars one could argue that the training regime is approximating that described by Chifolleau et al.

It is important to note however, that training forms but one element of the private cellars' strategy for quality production. Considerable emphasis is placed on and resources are dedicated to innovation and constant improvement of vineyard practices, especially the correct matching of terroir and cultivars. Experimentation with different soils and vineyard locations to produce new and different wine styles form an integral part of the practice at both private cellars.

The estates have a training regime similar to that of the co-operative cellars. Training is done informally on the farm. Workers receive instructions from the farm manager or viticulturist on how to perform vineyard practices and the farm manager or viticulturist use strict supervision to ensure that these instructions are executed. The farm manager and viticulturist at the private estates did not have trust that their workers could implement vineyard practices effectively without supervision. Both estates sell most of their wine in the basic category, seventy percent in the case of estate A and 100% in the case of estate B. It should be added though that these estates are not as far advanced as the private cellars or even the co-operative cellars in terms of the transformation and improvement of vineyard practices for quality wine production. In the case of estate A wine farming constitutes only one of the farming activities of the estate which could explain why not a lot of emphasis is placed on the transformation of vineyard practices. The estate also produces table grapes, plums, apricots and citrus which are grown for the export market. The estates studied are not imparting the kind of in-depth knowledge which the theory deems necessary for quality wine production to their workers. This is reflected in the quality of

[90] Interview on 17/10/2006

their wine as most of their wine is sold in the basic category of the market. One can however not simply attribute this to the lack of formal training and in-depth knowledge amongst the workforce.

In the case of the private cellars and estates there appears to be a correlation[91] between the type of training regime and the quality of wine produced as indicated by the price categories in which wine is sold. The case of the co-operative farms is however not as clear-cut. How does one make sense of the case of the co-operative farms which does not seem to support the theoretical argument that in-depth knowledge of the physiology of the vine and an ability to exercise discretion amongst vineyard workers is a necessary condition for the production of quality wine? The evidence suggests that in a country like South Africa, in the context of a legacy of low education and literacy levels amongst workers, repeated demonstration and strict supervision can compensate to a certain degree for a lack of in-depth knowledge and discretion amongst workers. The co-operatives studied actually manage to produce wines that compete well on an inter and intra-regional level. But in which price categories would these wines sell in international markets? This is a difficult question to answer, because co-operative A sells most of its wine in bulk and cellar B has not yet entered the international market.

This, however does not suggest that training and skills development are not important. If workers get in-depth training and are motivated, it would at least alleviate the need for strict supervision. This would free up more time for farm owners/managers to concentrate on other aspects of the business and would lead to a more productive use of time and resources for the farm.

4. Recommendations

1. The co-operative cellars should investigate the possibility of increasing the price differential between different classes of grapes. This might not be an easy exercise, but it could have implications for the cellar's ability to improve the quality of the wine produced. It could also act as an important incentive for encouraging farmers to invest in the training of their workforce.
2. The co-operative cellars should make training part of the strategic agenda of the cellar, because many farmers at cellar B indicated that they would prefer that training happens

[91] This does not mean to suggest that there is a direct causal relationship between training and quality, but rather that training is but one factor which can account for the quality of wine and that other factors are also important.

within the guidelines of the cellar.

3. It is clear that a lack of awareness of government's framework for skills development and the opportunities available for training are also factors which account for the lack of formal training on co-operative farms. There is definitely a need for an intensive awareness raising campaign on the part of government about how farmers could go about accessing funds available through the SETA system to train their workers. Merely putting information on the AgriSETA's website is not enough as a lot of farmers do not necessarily make use of the internet. The television or agricultural and viticulture magazines like Wineland, Wine, etc. would probably be more effective in disseminating information regarding government's skills development and training initiatives.
4. Part of this awareness raising campaign would also have to include a strategy to allay some of the fears and possible misconceptions that farmers would have about the time and cost implications that the administrative process for accessing funds provided through the SETA system might have for them.
5. The Vineyard Academy and other training institutions like Elsenburg for example, also needs to embark on a road show to publisize the work that the organisation does. This is important as this study found that a number of respondents were not aware of the Vineyard Academy's existence.
6. The South African Wine and Brandy Company (SAWB)[92] views human resources development as a crucial element of its "blueprint" for increasing the competitiveness of the South African wine industry. Skills development and training will also be at the top of the list of the black economic empowerment (BEE) charter for the industry and the scorecard which the SAWB is in the process of developing. However, not enough is done by the organisation to drive this message home to the industry at cellar and farm level. The organisation is also not doing enough to deal with the uncertainties and fears which many farmers might have around this issue. The organisation should consider having a range of public discussions/hearings in different wine areas and regions to give farmers and workers an opportunity to listen to what the organisation has planned around the BEE issue and particularly human resources development. These public discussions/hearings would also be an opportunity for farmers and workers to give their input into how the process should happen.
7. A majority of the farmer/manager respondents and viticulturists indicated a need and

[92] The SAWB has been restructured and is now called the South African Wine Industry Council under the chairmanship of Professor Kader Asmal

their support for a regional training centre. One reason for this is that available training opportunities are often not accessible due to distance, travel and time constraints. Some even indicated that they would be willing to make a financial contribution to the operation of such a centre. The issue of establishing training centres in different wine regions should be further explored by the SAWB and/or the Western Cape Department of Agriculture in consultation with farmers, workers and other industry role-players. This training centre could form an important intermediary between farmers and the AgriSETA and could assist farmers with the paperwork which they need to complete in order to claim money back from the AgriSETA.

8. Considering the low literacy levels at the two estates, especially at estate B, it is recommended that workers on these farms be exposed to adult basic education and training (ABET) courses, especially since the AgriSETA provides funds for ABET courses. Some workers at the co-operative farms could also benefit from such initiatives. This requirement could also be linked to the BEE scorecard.
9. The length of service of workers at the co-operative farms, private cellars and estates is high. They have thus managed to build up a wealth of experience over the years, even in the absence of sufficient formal training. It is recommended that the farms, perhaps with the assistance of the Vineyard Academy or the Robertson Wine Valley, explore the possibility of having these skills formerly recognised through the "Recognition of Prior Learning" aspect of the National Qualifications Framework (NQF).

5. Issues for Future Research

- The situation concerning contract workers and specifically the skills issue as it pertains to them was not a specific concern of this thesis. This issue should however be further explored in future research studies. This is important as more and more workers are employed on a contract basis on wine farms.
- Similarly, the Black Economic Empowerment (BEE) issue and specifically human resources development and its weighting in the wine industry scorecard is an important topic for further research. Especially since, in terms of BEE legislation, the majority of wine farmers are not compelled to comply with BEE legislation.
- The methodology used in this thesis had certain shortcomings. For example the relationship between farmer owners and management and how it affects workers' on the job performance was not investigated in this study. This should be further explored in future research through the use of in-depth interviews. The methodology used in this

study could have been further enchanced through the use of focus group discussions and observation in the vineyard.

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Appendix A : Management Questionnaire

DEPARTEMENT SOSIOLOGIE, UNIVERSITEIT VAN STELLENBOSCH

Navorsingsprojek:

'SKILLS, LABOUR AND INTERNATIONAL MARKETS' (SLIM)

VRAELYS VIR PRODUSENTE

Telefoon nommers waar u my kan bereik as u enige vrae het:

Mercy Brown (DPhil student): (021) 552 7186 (h), 0837977608, futhi@telkomsa.net (e-pos)

Studieleier: Dr Joachim Ewert, tel 082 335 4808; jwe@sun.ac.za (e-pos)

A. ALGEMEEN

1. Plaasnaam: _____

2. Posisie van respondent

1. Eienaar/Bestuurder
2. Bestuurder _____ (spesifiseer watter soort)

3. Hoe lank werk u al by hierdie kelder? _____ jaar

4. Formele (naskoolse) landboukundige kwalifikasie?

5.Enige ander tersiêre kwalifikasies?

_____

_____

_____

6. Beskou u uself in die eerste plek as ‘n wynboer?

1. Ja
2. Nee
3. N.v.t.

7. Indien Nee, hoe sou u u identiteit beskryf?

_____

_____

_____

8. Hoeveel ton wyndruiwe word in die kelder se eie wingerde geproduseer? _____ (ton)

9. Watter % dra die wyndruiwe by tot die jaarlikse omset van die kelder?

	% OMSET
Wyndruiwe	
Ander gewasse	
Diere	
Ander aktiwiteite	
TOTAAL	

10. Watter deel van u boerdery beskou u as die belangrikste?

_____

11. Waarom? _____

_____

_____

12. Wat beteken ‘kwaliteit wyn’ vir u en hoe kan dit bereik word?

_____

_____

_____

_____

13. Watter kultivars is almal aangeplant op hierdie plaas? (vul in tabel hieronder)

KULTIVAR	MAAK □ INDIEN AANGEPLANT
Shiraz	
Cabernet Sauvignon	
Merlot	
Pinotage	
Chardonnay	
Sauvignon Blanc	

14. Gee u voorkeur behandeling aan enige van hierdie kultivars? (merk met ‘n *)

15. Waarom?

_____

_____

_____

16. Watter % van u wyn verkoop in die volgende prysklasse:

1.Basies	
2.Premium	
3.Super-premium	
4.Ultra-premium	
5.Icon	

17. Watter % van die kelder se wyn is in 2004 uitgevoer:

1.2003	
2.2004	

18. Wat is die kelder se belangrikste uitvoermarkte (lande)?

_____

19. Het julle enige handelsmerke? Indien ja, wat is hulle?

_____

_____

_____

20. Voorsien julle die papsak mark?

Ja	
Nee	

B. WINGERDPRAKTYKE (m.b.t Shiraz)

NB! VRA EERS OF PRAKTYKE VIR SHIRAZ ANDERS IS AS VIR ANDER KULTIVARS. INDIEN JA, FOKUS VRAE DAAROP

Langtermyn praktyke

'Terroir' (Ligging en Grond)

21. Was die besluit om Shiraz te plant op die terrein waar dit is

u eie besluit

na aanleiding van advies

u eie besluit plus addisionele advies

22. Indien 2. of 3. hierbo, wie se advies? _

_____

_____

23. Is die terroir vir u Shiraz optimaal?

1. Ja
2. Nee

24. Indien Nee, waarom nie?

_____

_____

_____
_____
_____
_____

25. Plantwydte (Stokke): _____ meter

26. Was die besluit om die stokke sover uitmekaar te plant
    1. u eie besluit
    2. na aanleiding van advies
    3. u eie besluit plus addisionele advise

27. Indien 2. of 3. hierbo, wie se advies?

_____

_____

28. Afstand tussen rye: _____ meter

29. Was die besluit om die rye so ver uitmekaar te plant
    1. u eie besluit
    2. na aanleiding van advies
    3. u eie besluit plus addisionele advies

30. Indien 2. of 3. hierbo, wie se advies?

_____

_____

Besproeiingsstelsel

31. Van watter stelsel(s) maak u gebruik?

1. drup
2. mikro
3. vloed
4. oorhoofs
5. kombinasie _____

32. Was die besluit om díe tipe besproeiingsstelsel te installeer

1. u eie besluit
2. na aanleiding van advies
3. u eie besluit plus addisionele advies

33. Indien 2. of 3. hierbo, wie se advies?

_____

_____

34. Indien drup- of mikro-besproeiing, is dit gerekenariseer?

1. Ja
2. Nee

35. Maak u gebruik van ‘n grondvogmetingsapparaat?

1. Ja
2. Nee

Oplei van jong wingerd

36. Watter stelsel gebruik u?

1. enkelkordon
2. dubbelkordon
3. meganiese snoei
4. bosstok

---

37. Lei u die wingerd op t.w.v.

1. kwaliteit
2. kwantiteit
3. meganiese oes
4. kwaliteit en meganiese oes
5. beter benutting van stok
6. meer doeltreffende (hand-)oes
7. meer effektiewe besproeiing
8. beter benutting van stok; beter opbrengs; meer doeltreffende (hand-)oes; meer effektiewe besproeiing; meganiese oes
9. n.v.t

38. Was die opleistelsel

1. u eie besluit
2. na aanleiding van advies
3. u eie besluit plus addisionele advies

39. Indien 2. of 3. hierbo, wie se advies?

_____

_____

40. Watter priëlstelsel gebruik u?

1. Perold
2. Verlengde Perold

41. Was díe priëlstelsel

1. u eie besluit
2. na aanleiding van advies
3. eie besluit en addisionele advies

42. Indien 2. of 3. hierbo, wie se advies?

_____

Korttermyn praktyke

Snoei

Watter instruksies gee u vir die werkers wat betref?

43. Die aantal draers per arm?

_____

_____

44. Die afstand tussen die draers?

_____

_____

45. Die lengte van die draer?

_____

_____

46. Het u hierdie metode van snoei ingestel t.w.v

1. kwaliteit
2. kwantiteit
3. meganiese oes
4. eenvormigheid

47. Was dit

1. u eie besluit
2. na aanleiding van advies
3. u eie besluit plus addisionele advies

48. Indien 2. of 3. hierbo, wie se advies?

_____

_____

49. Watter soort arbeid gebruik u vir snoei?

	Mans	Vrouens
Permanente		
'Casual'		

Kontrak		

50. Indien (ook) ‘casual’ arbeid gebruik word, geskied dit onder toesig?
    1. Ja
    2. Nee

51. Indien Ja, wie hou toesig? _____

52. Hoeveel werkers in totaal gebruik u tydens snoeityd? _____

53. Hoeveel toesighouers gebruik u vir díe grootte snoeispan? _____

54. Indien u kontrakarbeid vir snoei gebruik, is u tevrede met die kwaliteit werk wat hulle lewer?
    1. Ja
    2. Nee
    3. Ja, maar eie toesig is noodsaaklik

55. Indien Nee, wat is fout met hul werk?

_____

_____

_____

_____

Suier

56. Watter instruksies gee u vir die werkers wat suier betref?

_____

_____

57. Is hierdie metode van suier
    1. u eie besluit
    2. na aanleiding van advies
    3. u eie besluit plus addisionele advies

58. Indien 2. of 3. hierbo, wie se advies?

_____

_____

59. Watter soort arbeid gebruik u vir suier?

	Mans	Vrouens
Permanente		
'Casual'		
Kontrak		

60. Indien (ook) 'casual' arbeid vir suier gebruik word, geskied dit onder toesig?
    1. Ja
    2. Nee

61. Indien Ja, wie hou toesig? _____

62. Hoe groot is u arbeidsmag tydens suier? _____

63. Hoeveel toesighouers gebruik u vir díe grootte arbeidsmag? _____

64. Indien u kontrakspanne vir suier gebruik, is u tevrede met die kwaliteit werk?

1. Ja
2. Nee

65. Indien Nee, wat is fout met hul werk?

_____

_____

_____

_____

Somerloofbeheer (tip, top, lote insteek, blare breek)

66. Watter instruksies gee u vir die werkers wat tip betref?

_____

_____

67. Is hierdie metode van tip

1. u eie besluit
2. na aanleiding van advies
3. u eie besluit plus addisionele advise

68. Indien 2. of 3. hierbo, wie se advies?

_____

_____

69. Watter instruksies gee u vir die werkers wat top betref?:

_____

_____

_____

_____

70. Is hierdie metode van top

1. u eie besluit
2. na aanleiding van advies
3. u eie besluit plus addisionele advise

71. Indien 2. of 3. hierbo, wie se advies?

_____

_____

72. Watter instruksies gee u vir die werkers wat lote insteek betref?:

_____

_____

_____

_____

73. Is hierdie metode van lote insteek

1. u eie besluit
2. na aanleiding van advies
3. u eie besluit plus addisionele advies

74. Indien 2. of 3. hierbo, wie se advies?

_____

_____

75. Watter instruksies gee u vir die werkers wat blare breek betref?

_____

_____

_____

76. Is hierdie metode van blare breek

1. u eie besluit
2. na aanleiding van advies
3. u eie bsluit en addisionele advise

77. Indien 2. of 3. hierbo, wie se advies?

_____

_____

78. Watter soort arbeid gebruik u vir loofbeheer?

	Mans	Vrouens
Permanente		
'Casual'		
Kontrak		

79. Indien (ook) 'casual' arbeid gebruik word, geskied dit onder toesig?

1. Ja
2. Nee

80. Indien Ja, wie hou toesig? _____

Oesbeheer

81. Beoefen u oesbeheer?

1. Ja
2. Nee

82. Indien Ja, wat is u doel met oesbeheer?

_____

_____

83. Indien u oesbeheer toepas, watter instruksies gee u aan die werkers?

_____

_____

_____

_____

84. Watter soort arbeid gebruik u vir oesbeheer?

	Mans	Vrouens
Permanente		
'Casual'		
Kontrak		

85. Indien (ook) 'casual' arbeid gebruik word, geskied dit onder toesig?

1. Ja
2. Nee

86. Indien Ja, wie hou toesig? _____

Siekte en plae beheer

87. Is daar 'n werker(s) wat spesiaal verantwoordelik is vir plaagmonitering?

1. Ja
2. Nee

88. Indien Ja, wat is sy/haar/hulle taak?

89. Ingeval daar gespuit moet word, watter werker(s) is verantwoordelik is daarvoor?

90. Kry die persoon wat spuit

1. elke slag presiese instruksies wat die tipe 'gif' en dosis betref of
2. laat u so iemand sy/haar eie diskresie gebruik?

91. Indien volgens instruksies gespuit word, wie gee die instruksies aan die werker?

92. Wanneer word die instruksies gegee?

93. Wat die kalibrasie van die spuittoerusting betref, wie doen dit?

1. uself
2. agent wat spuitstowwe verkoop
3. uself saam met die agent

4. die werker wat spuit

Grondbestuur

94. Spuit u spoorelemente?
    1. Ja
    2. Nee

95. Indien Ja, elke hoeveel jaar doen u ‘n grondtoets? Elke _____ jaar

96. Kry die persoon wat spoorelemente spuit
    1. elke slag presiese instruksies wat die mengsel betref of
    2. laat u so iemand sy/haar eie diskresie gebruik?

97. Wat die kalibrasie van die spuittoerusting betref, wie doen dit?
    1. uself
    2. agent wat die produk verkoop
    3. uself saam met die agent
    4. die werker wat spuit

98. Pas u grondbestuur toe?
    1. Ja
    2. Nee

99. Indien Ja, hoe?
    1. onkruiddoder
    2. dekgewasse
    3. bewerk van (spasie tussen) ry(e)
    4. onkruiddoder en dekgewasse
    5. onkruiddoder, dekgewasse en bewerk van ry

100. Indien grondbestuur toepas, was dit
    1. u eie besluit
    2. na aanleiding van advies

3. u eie besluit plus addisionele advies

101. Indien 2. of 3. hierbo, wie se advies?

_____

_____

102. Watter van die bg. korttermyn praktyke het u die meeste verander oor die laaste vyf jaar?

_____

_____

_____

_____

103. Wie is u belangrikste bron van inligting/kennis vir hierdie nuwe praktyke?

_____

_____

_____

104. Wat wingerdpraktyke betref, wie is die tegnies mees kundige persoon wat u ken?

_____

_____

105. Gee u voorkeur (i.t.v tyd, arbeid, kapitaal, toesig) aan enige van bg. korttermyn praktyke?

1. Ja
2. Nee

_____

106. Indien Ja, watter en waarom?

107. Watter van die bg. korttermyn praktyke ondervind u as problematies? (bv. in terme van die ekonomiese koste betrokke)

C. OPLEIDING

109. Het u werkers voldoende vaardighede om bg. wingerdpraktyke effektief toe te pas?

1. Ja
2. Nee

3. Ja, maar streng toesig is noodsaaklik

---

110. Indien Nee, watter vaardighede ontbreek?

---

111. Beoog u enige stappe om bg. vaardigheidstekorte aan te spreeek?

---

112. Vir watter wingerdpraktyke het u permanente werkers die laaste drie jaar geakkrediteerde opleiding gekry?

Praktyk	Tik af indien Ja	Wie was die 'Training provider'?
Oplei		
Snoei		
Suier		
Loofbeheer		
Oesbeheer		

Siekte en plae beheer		
Grondbestuur		
Omvattende sessie/kursus		

D. OPLEIDING EN ‘EQUITY’

113. Is enige van die kelder se bestaande poste geoormerk as ‘equity’ poste?

1. Ja
2. Nee

114. Indien Ja, watter?

_____
_____
_____
_____
_____

115. Kan hierdie poste gevul word uit die bestaande personeel?

1. Ja
2. Nee

116. Indien Nee, waarom nie?

_____
_____
_____
_____
_____

E. OPLEIDINGSBEHOEFTES IN DIE PAARL STREEK

117. Volgens u persepsie, aan watter vaardighede is daar ‘n tekort in die Paarl streek?

_____

_____

_____

_____

_____

118. Is daar volgens u ‘n behoefte aan ‘n opleidingssentrum vir werkers in die Paarl wynstreek?

1. Ja
2. Nee

119. Indien Ja, waarom?

---

120. Indien Ja, sou die kelder bereid wees om R 2000 per jaar by te dra tot die finansiering van so ‘n sentrum?

---

121. Het u al gebruik gemaak van die befondsing wat die SETA vir Landbou bied om u werkers op te lei?

1. Ja
2. Nee
3. Nie bewus van die geleentheid nie

F. KWALITEITSBEOORDELING

122. Het die Shiraz van hierdie kelder oor die laaste drie jaar enige toekennings/medaljes behaal?

1. (2002) _____ (spesifiseer)
2. (2003) _____ (spesifiseer)
3. (2004) _____ (spesifiseer)

123. Indien Ja, waaraan skryf u dit toe?

G. BRONNE VAN INLIGTING EN KENNIS

124. Wat is u belangrikste bronne van informasie/ kennis vir kwaliteitsproduksie (i.t.v. rangorde)?

Inligtingsbronne	
Kursusse	
Praatjies oor praktyke gereël deur plaaslike wynroete assosiasie of landbou vereniging	
Praatjies gereël deur VinPro	
Wynskoue/-expos	
Wyntydskrifte	
Ander wynboere	
Ander wynmakers	
Internet	
Ander (spesifiseer)	

125. Behoort u aan enige professionele verenigings/organisasies in die wynbedryf?

---

126. Indien ja, spesifiseer

_____

_____

_____

_____

127. Het u enige formele opleidingskursusse oor die afgelope drie jaar bygewoon?

_____

_____

_____

_____

128. Indien ja, watter en deur wie is dit aangebied?

_____

_____

_____

_____

H. STRATEGIE

129. Hoe sou u die huidige strategie van die kelder beskryf?

---

130. Volgens u mening, watter strategie behoort die kelder oor die volgende 10 jaar te volg?

---

131. Wat is die belangrikste struikelblokke in die pad van hierdie strategiese doelstellings?

Baie dankie vir u tyd en die bereidwilligheid om met ons te gesels!

Appendix B: Workers Questionnaire

DEPARTEMENT SOSIOLOGIE, UNIVERSITEIT VAN STELLENBOSCH

NAVORSINGSPROJEK:

'SKILLS, LABOUR AND INTERNATIONAL MARKETS' (SLIM)

VRAELYS VIR WERKERS

Telefoon nommers waar u my kan bereik as u enige vrae het:

Mercy Brown (DPhil student): (021) 552 7186 (h), 0837977608, futhi@telkomsa.net (e-pos)

Studieleier: Dr Joachim Ewert, tel 082 335 4808; jwe@sun.ac.za (e-pos)

A. ALGEMEEN

1. Plaasnaam: _____

2. Naam: _____

3. Geslag
   1. Vroulik
   2. Manlik

4. Ouderdom: _____

5. Ras
1. Kleurling
2. Swart

6. Werk

1. Algemene werker

2.Spesialis werker

3.Algemene werker + spesiale take

4.Toesighouer

7. Is jy ‘n :

Permanente werker	
‘Casual’ 1. Kontrak-werker	
2. Nie-kontrak werker	

8. Hoe lank werksaam op die plaas? _____ jaar

9. Watter standerd het u op skool voltooi? _____

10.Kan u lees?

1. Ja
2. Nee

11. Kan u skryf?

1. Ja
2. Nee

B. WINGERD SAMESTELLING

12. Weet u watter kultivars almal op hierdie plaas aangeplant is? (vul in tabel hieronder)

KULTIVAR

C. WINGERDPRAKTYKE (m.b.t. Shiraz)

Plant van stokkies

13. Hoe, volgens die instrukteur, moet die gat gemaak word?

_____

_____

14. Het die instrukteur vir u verduidelik waarom jy die gat op hierdie manier moet maak?
    1. Ja
    2. Nee

15. Indien Ja, watter rede(s) het hy/sy gegee?

_____
_____
_____
_____
_____

16. Hoe wyd uitmekaar , volgens die instrukteur, moet die stokkies geplant word?

_____ meter

Oplei van jong wingerd

17. Hoe, volgens die instrukteur, moet die jong wingerd opgelei word?

_____
_____
_____
_____
_____
_____
_____
_____

18. Het die instrukteur vir u verduidelik waarom u so moet oplei?

1. Ja
2. Nee

19. Indien Ja, watter redes het hy/sy gegee?

_____

_____
_____
_____
_____
_____
_____
_____
_____

Snoei

20. Volgens die instrukteur, hoeveel ‘tappies’moet daar op elke arm gelos word?

_____

21. Volgens die instrukteur, wat moet die afstand tussen die ‘tappies’ wees?

_____

22. Volgens die instrukteur, hoeveel ogies per ‘tappie’ moet daar gelos word?

_____

23. Het die instrukteur vir u verduidelik waarom u so moet snoei?

1. Ja
2. Nee

24. Indien Ja, watter redes het hy/sy gegee?

25. Weet u hoe daar op buurplase gesnoei word?

1. Ja
2. Nee

26. Indien Ja, hoe? (dieselfde of anders as hier?)

Suier

27. Volgens die instrukteur, hoe moet gesuier word?

28. Het die instrukteur vir u verduidelik waarom u so moet suier?

1. Ja
2. Nee

29. Indien Ja, watter redes het hy/sy gegee?

Somerloofbeheer (tip, top, lote insteek, blare breek)

30. Volgens die instrukteur, hoe moet getip word?

31. Het die instrukteur vir u verduidelik waarom u so moet tip?

1. Ja
2. Nee

32. Indien Ja, watter redes het hy/sy gegee?

33. Volgens die instrukteur, hoe moet getop word?

34. Het die instrukteur vir u verduidelik waarom u so moet top?

1. Ja
2. Nee

35. Indien Ja, watter redes het hy/sy gegee?

36. Volgens die instrukteur, hoe moet lote ingesteek word?

37. Het die instrukteur vir u verduidelik waarom u die lote so moet insteek?

1. Ja
2. Nee

38. Indien Ja, watter redes het hy/sy gegee?

39. Volgens die instrukteur, hoe moet die blare gebreek word?

40. Het die instrukteur vir u verduidelik waarom u die blare so gebreek moet word?

1. Ja
2. Nee

41. Indien Ja, watter redes het hy/sy gegee?

Oesbeheer (‘druiwe afgooi’)

42. Volgens die instrukteur, watter druiwe moet julle afgooi?

43. Het die instrukteur vir u verduidelik waarom u dit so moet doen?

1. Ja
2. Nee

44. Indien Ja, watter redes het hy/sy gegee?

Besproeiing (‘water gee’)

45. Wie besluit wanneer by ‘n blok gespuit moet word?

1. Eienaar en/of bestuurder
2. Ek self
3. Rekenaar

46. Indien 2., hoe besluit u wanneer u water moet gee?

_____

_____

_____

47. Het die instrukteur vir u verduidelik wanneer u moet water gee?

1. Ja
2. Nee

48. Indien Ja, watter redes het hy/sy gegee?

_____

_____

_____

_____

_____

Plae en siekte beheer (‘gif spuit’)

49. Is dit deel van u verantwoordelikheid om plae en siektes in die wingerd raak te sien?

1. Ja
2. Nee

50. Indien Ja, wie het vir u geleer hoe om dit raak te sien?

1. Die eienaar en/of bestuurder
2. Die toesighouer
3. Ouer/ ervare werker
4. Kelder se wingerdboukundige
5. Kombinasie van bogenoemde (spesifiseer):

_____

51. Watter siektes en plae kan u almal uitken? (vul in tabel hieronder)

SIEKTES EN PLAE

52. Indien dit deel van u verantwoordelikheid is, wanneer kyk u uit vir siektes en plae?

1. Net sekere tye van die jaar
2. Voortdurend

53. Is deel van u werk om ‘gif’ te spuit?

1. Ja
2. Nee

54. Indien Ja, wie meet die dosis/mengsel af ?

1. u self
2. eienaar en/of bestuurder
3. agent wat ‘gif’ verkoop
4. eienaar /bestuurder en agent

55. Wie kalibreer die spuittoerusting (‘stel dit in’)?

1. u self
2. eienaar en/of bestuurder
3. agent wat ‘gif’ verkoop
4. eienaar /bestuurder en agent

Grondbestuur

56. Is dit deel van u werk om bemesting (‘kunsmis’ of ‘spoorelemente’) te spuit?

1. Ja
2. Nee

57. Indien Ja, wie meet die dosis/mengsel af ?

1. u self
2. eienaar en/of bestuurder
3. agent wat produk verkoop
4. eienaar /bestuurder en agent

58. Wie kalibreer die spuittoerusting (‘stel dit in’)?

1. u self
2. eienaar en/of bestuurder
3. agent wat ‘gif’ verkoop

59. Watter van die bogenoemde praktyke waaroor ons tot dusver gepraat het, is nuut of het die meeste verander oor die laaste klompie jare ?

60. Was enige van die nuwe praktyke moeilik om aan te leer?

1. Ja
2. Nee

61. Indien Ja, watter?

62. Indien Ja, waarom?

D. OPLEIDING

63. Vir watter van bg. praktyke het jy die laaste vyf jaar opleiding gekry deur iemand anders as die eienaar/bestuurder? (vul in tabel hieronder)

Praktyk	Eienaar/Bestuurder/Voorman	'Training provider'	Tipe opleiding 1. Les/praatjie 2. Praktiese demonstrasie 3. Video 4. Video, les/praatjie plus praktiese demonstrasie
Oplei			
Snoei			
Suier			
Loofbeheer			
Oesbeheer			
Siekte en plae beheer			
Grondbestuur			
Omvattende sessie/kursus			

64. Wat het u tydens hierdie opleiding geleer wat u nie voorheen geweet het nie?

65. Het u enige sertifikate as bewys van u opleiding ontvang?

1. Ja
2. Nee

66. Indien Ja, watter?

67. Watter opleiding wil u nog graag hê?

68. Hoe maklik of moeilik is dit om hierdie soort opleiding te kry ?

E. KWALITEITSBEWUSSYN

69. Weet u of die Shiraz wyn van hierdie kelder vanjaar enige pryse/toekennings gewen het?

1. Ja
2. Nee
3. Weet nie

70. Indien Ja, watter?

BAIE DANKIE VIR U TYD EN BEREIDWILLIGHEID OM MET ONS TE GESELS