

**WESTERN CAPE AGRICULTURAL
SECTOR:**

**STRUCTURE, PERFORMANCE AND
FUTURE PROSPECTS**

AN OVERVIEW

NICK VINK

NORMA TREGURTHA

DEPARTMENT OF AGRICULTURAL ECONOMICS

UNIVERSITY OF STELLENBOSCH

Table of Contents

1.	Introduction.....	3
2.	Microeconomic overview	4
2.1.	Commodity mix	4
2.2.	Western Cape production in a national perspective.....	8
2.3.	Land use and yield levels.....	9
2.4.	Farm numbers and sizes.....	11
2.5.	Employment and wage income	11
2.6.	Status of land reform.....	14
3.	Macroeconomic characteristics.....	17
3.1.	GDP growth	17
3.2.	Agricultural budget expenditure trends.....	17
3.3.	Relative economic contributions from different sectors.....	18
3.4.	International trade	19
3.5.	Macroeconomic implications of sectoral change.....	20
3.6.	Effects of sectoral growth on household incomes	23
4.	Constraints to expansion.....	23
5.	References.....	26
	APPENDIX 1:.....	28

1. INTRODUCTION

The Western Cape's agriculture is distinguished in several ways from that in the rest of South Africa, largely because of the physical resource differences. The winter rainfall region of the Boland and the year-round rainfall of the Southern Cape provide agricultural conditions that make the crop mix and productive potential unique. A main feature of the region's agriculture is production stability, based on stable and relatively adequate winter rainfall and supported by well-developed infrastructure for both input supply and output processing.

Agriculture is one of the primary pillars of the Western Cape economy. Although the province contributes some 14% to the country's Gross Domestic Product, it generates about 23% of the total value added of the agricultural sector in South Africa, which was R25bn in 2001. Agriculture accounted for 5.2% of the Western Cape's Gross Regional Product in 2001. As many as 11 commodities contribute significantly to agricultural production, with fruit, poultry/eggs, winter grains, viticulture and vegetables together comprising more than 75% of total output. Consequently, diversity of agricultural enterprises also contributes to agriculture's general stability.

Various topographic features divide the province into a number of subregions, each with its own distinct climate. High mountain ranges interact with on-shore movements of moisture laden ocean air to serve as water harvesting systems. The resulting runoff provides substantial irrigation potential in the coastal region and parts of the Karoo semi-desert area beyond the mountains. The province can be divided into seven main climate-zones.

While there is agricultural activity in the Cape Metropolitan area, including some high value enterprises, the economic and social character of this subregion is definitely urban or metropolitan. This area is comprised of the Bellville, Goodwood, Cape Town, Simonstown and Wynberg districts and is usually referred to as the Cape Peninsula. However, intensive poultry, pork, vegetable and milk production based on zero grazing technology can be found within a radius of about 75 km from Cape Town.

The South coast subregion, with an area of approximately 960 000 ha, produces mainly wheat and malting barley in rotation with planted pastures under rainfed conditions. The production of wool, milk and meat, which is already significant, should increase and cultivated pastures and fodder grains can be expected to replace some wheat in the future. Intensive production under irrigation of vegetables and hops, mainly in the George area, and irrigated pastures for milk production can be found towards the escarpment.

The Little Karoo, stretching from Barrydale to the upper reaches of the Langkloof, is renowned for its ostrich industry around Oudtshoorn, the production of deciduous fruit for canning, drying and increasingly for export, and for lucerne hay. The land under irrigation is less than 4% of the total area of about 2 million ha but produces more than 80% of the total value of production.

The 80 000 ha intensively cultivated and irrigated areas of the Boland produces mainly deciduous fruit and wine grapes, with Elgin and Ceres being the main centres for apple and pear production and the Hex River Valley and Paarl for table grapes.

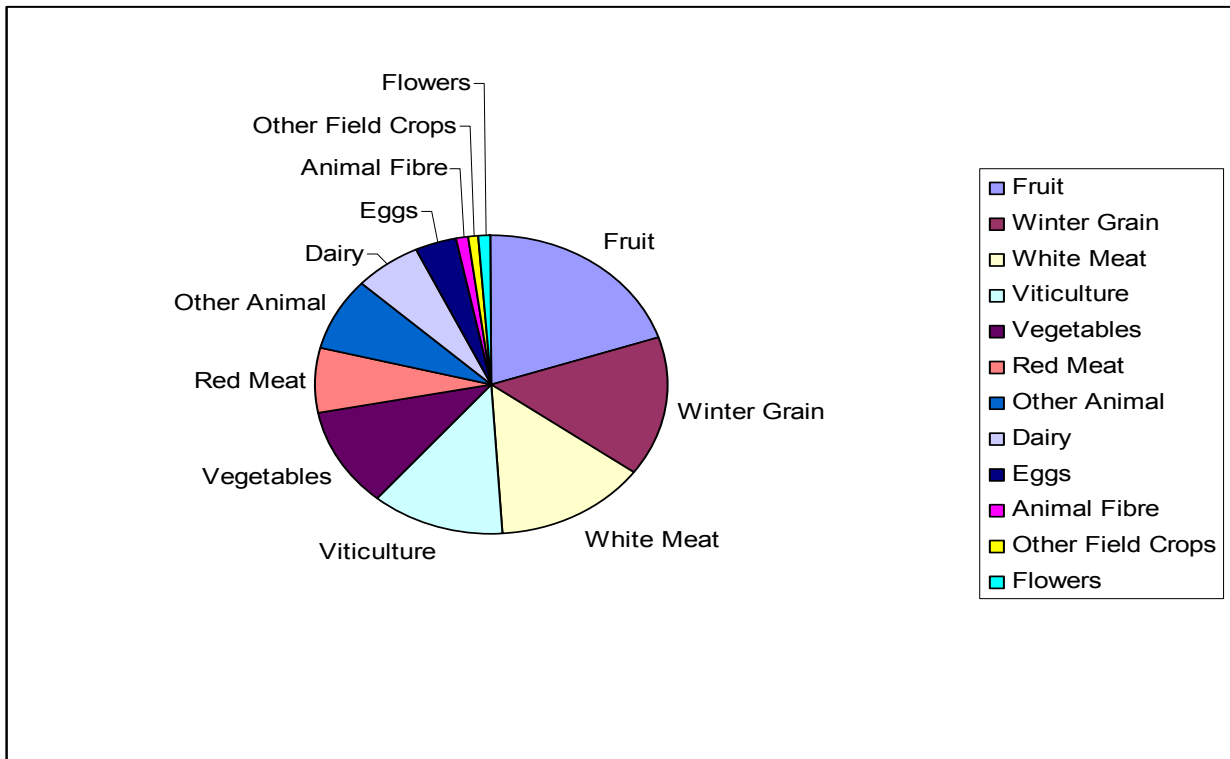
The Swartland consists of approximately 270 000 ha of land that is confined primarily to rain-fed wheat and pastures. Sheep and dairy farming are also found in rotation with wheat. A move away from monoculture wheat toward mixed crop-livestock systems is occurring at present and should continue in the near future.

The northwest subregion produces mainly wine grapes and citrus under irrigation along the Olifants River. A small but flourishing rooibos tea industry has been established around Clanwilliam. The grazing areas, such as those in the Great Karoo, are used for the production of meat, wool and mohair.

2. MICROECONOMIC OVERVIEW¹

2.1. Commodity mix²

Figure 1 show the most important agricultural commodities grown in the Western Cape. These are discussed in more detail below.



Source : Wesgro 2001

Figure 1: Agricultural production in the Western Cape

Viticulture

South Africa is the world's sixth largest wine producer, accounting for 2.8% of global production. The Western Cape's favourable climatic and soil conditions make it home to most of South Africa's wineries, accounting for 90.5% of production. Viticulture contributes some 30% to the region's horticultural income and about 3% to its Gross Regional Product. The gross output value of wine-industry-related firms is R14.6 billion. In 2001, there were 4 390 primary wine producers and 388 cellars – an increase of 15% over 1999. This included 67 cooperatives, 91 estates, 219 private wine cellars and 11 producing wholesalers. The area under vines is some 106 000 hectares. About 746 million litres of wine are produced annually from 314 million vines. On average, 71% of production

¹ Data used here were mostly obtained from the Wesgro website (Wesgro, 2003) unless otherwise specified.

² Appendix 1 provides a list of data sources for Western Cape Agricultural Statistics.

finds its way into good wine (for drinking) - up from 65% in 1999. Another 1% finds its way into rebate wine (for distillation of pot still brandy), 15% into distilling wine, and 13% into non-alcoholic uses such as grape juice and grape concentrate.

The late 1990s saw considerable foreign investment in Western Cape vineyards, large-scale replanting and quality improvements, leading to a boom in exports. There was an explosion in the number of wineries and wines produced – over 100 new wineries between 1999 and 2001. There was also substantial investment in information technology, export infrastructure, and distribution facilities. Given the low production costs in the Cape (despite the high cost of imported equipment and cost escalation caused by devaluation of the Rand), Cape wineries have proven competitive – particularly those wineries producing fine a quality at a premium price. The South African wine industry is encouraging people from previously disadvantaged communities to emerge as wine farmers/makers. To this end, the Wine Industry Trust was established in 1999, with funding of R370 million over ten years. One of its responsibilities is investment in ‘wine education’ to facilitate entry into the industry. A number of Cape wine farmers have established joint ventures with their workers, e.g. Spice Route, New Beginnings, Thandi Wines and Tukululu. The New Farmers’ Development Corporation helps workers from disadvantaged communities to secure capital for the establishment of commercially viable farms.

South African wine exports grew to 210 million litres in 2002 – up from 50.7 million litres in 1994. Exports accounted for 33.5% of good wine production, compared to just 14.6% in 1995. In addition, 61.5 million litres of bulk wine were exported. Total export value for wines in 2001 was about R4.5 billion. In 2001 South Africa imported 2.4 million litres of natural wine, 20 787 litres of fortified wine and 151 03 litres of sparkling wine. Approximately 50% of bottled wine exports are to the UK, 21% to The Netherlands, 9% to Scandinavia and 6.5% to Germany – together accounting for more than 85% of South Africa’s wine exports. Other markets currently representing less than 3% of exports, but identified as growth opportunities, include the US, India, China and Japan.

Wine tourism has potential – 43% of tourists to South Africa visit the winelands. The wine industry indirectly contributes more than R3.5 billion annually to the tourism industry.

Fruit

Fruit farming forms the backbone of agriculture in the Western Cape. Growing conditions are ideal for both soft citrus and deciduous fruit, exports of which are expected to rise from R6.5 billion in value in 2001 to R8 billion in 2003. Since 1990, the total value of citrus production has increased by 9.9% a year – twice the rate of the agricultural sector as a whole. This trend is expected to continue, mainly as a result of production expansion supported by strong export market growth. The citrus industry is currently valued at R1.8 billion annually.

With some 2 500 deciduous fruit growers, the Western Cape is the country’s largest producer of deciduous fruit (see Table 1), accounting for about 85% of total exports. In 2001, gross export earnings were about R5.1 billion. The Western Cape’s share of world apple production is just under 2%, yet it exports 35-45% of its total crop. The EU absorbs 75% of South African apple exports, while exports to the Middle East, Far East and the United States are growing. The Western Cape accounts for only 1% of world pear production but is the largest southern hemisphere exporter of Comice and Forelle varieties. About 40% of production is exported, with some 75% going to the EU (about 35% to the UK and 65% to mainland Europe). Together with Chile, the Western Cape is the southern hemisphere’s main exporter of table grapes. Exports have grown in recent years, especially of both white and red seedless varieties. More than 90% of the crop is exported, with the EU accounting for 75% of table grape exports. Similarly, the Western Cape and Chile are the main southern hemisphere players in the stone fruits market, although Chile exports nearly three times the volume. It is plums, however, which represent the largest volume of exports, with over 80%

bound for the EU. About half of all production is sold fresh, while some 20% is processed into juice. The remainder is used for canning and dried fruit. Although the apple market is currently static, and nectarines and peaches are growing at just 0.5% per annum, growth in the pear and apricot markets is approximately 2% per annum, with more substantial growth of 5% for plums and 7.5% for table grapes.

Table 1: Western Cape deciduous fruit production areas in comparison with South Africa

	Western Cape (ha)	South African Total (ha)
Apples	18 176	22 379
Pears	11 501	12 777
Table Grapes	8 809	12 247
Apricots	4 234	4 738
Plums	4 094	4 493
Prunes	555	567
Nectarines	1 075	1 379
Dessert Peaches	738	1 379
Cling Peaches	7 948	8 229

Source: Compiled from OABS 2004

There are some 1 200 citrus growers in South Africa, producing 1.5 million tons of fruit in 2001. The Western Cape produces 17 % of the total citrus crop (see Table 2). While South African citrus makes up only 2% of total world production, it accounts for more than 8.5% of total world exports. It competes directly with other southern hemisphere producers like Australia, Argentina and Chile, all of which go to market during the same season. Some 60% of the annual crop is exported, accounting for 80% of income, while 20% is consumed locally and 20% is processed into juice.

Table 2: South African Citrus Production Regions

District	Area (ha)	Contribution (%)
Eastern Cape	14,212	26
Limpopo	13,409	24
Mpumalanga	12,031	21
Western Cape	9,656	17
KZN	3,937	7
Swaziland	2,086	4
Other	503	1
TOTAL	55,834	100

Source: Citrus Growers Association

The Western Cape has long been known as a quality producer of canned fruit, much of it exported. Although European subsidies have put South African canners under pressure, there are still opportunities for high value added products for markets in the Far East, Europe and the Americas.

The fruit juice industry is also a strong growth sector. The biggest producer in the Western Cape is Ceres Fruit Processors, which produces large quantities of apple and pear concentrate. Other major players include Associated Fruit Processors, Elgin Fruit Juices and Granor Passi, as well as KWV, which produces grape juice concentrate. For the export market, aseptically packed concentrates and juices – without preservatives, artificial sweeteners or colorants – have proved popular. Major export markets include Europe and the Far East, where the Western Cape is known for its quality products and wide variety of flavours and flavour combinations.

In 2001, total production of dried fruit was 3 740 tons of dried tree fruit, and 31 000 tons of vine fruit. The gross value at producer level was R34.9 million for tree fruit and R121.6 million for vine fruit. Some 65-70% of annual production is exported. There are approximately 1 450 growers supplying this industry, mostly in the Citrusdal, Boland and Langkloof areas, although vine fruit for drying into raisins comes largely from the Orange River area in the Northern Cape. SA Dried Fruit is the largest player and the only one processing and marketing both tree and vine fruit.

Vegetables

Given the suitability of the regional climate, vegetable production is an important component of Western Cape agriculture, representing some 12% of total production. In 1999, some 61260m of fresh vegetables were exported from Cape Town's port. Most trade in fresh produce is either through the major urban fresh produce markets or through farmer organisations like Potato South Africa and the Onion Forum, which also make efforts to establish business partners abroad. Trade in vegetables through the Epping Fresh Produce Market in Cape Town is some 150 million tons annually, although this figure does not take into account an estimated 50% of production that is traded via the informal sector, produced under contract for major supermarket chains or exported, largely to the EU. In 1999, some 9800 hectares of land in the Western Cape was planted with potatoes, producing over 323 000 tons. More than 80% of the national crop is sold fresh or as seed, most of the balance being processed into French fries and crisps, although a small percentage is also used for baby food, mixed vegetables and canning. The yield from the province's 3 200 hectares of onion fields in 1999 was 152 000 tons. Nearly 23 000 tons of fresh tomatoes were also produced, excluding those destined for processing. In addition, the Western Cape accounts for 80-90% of national vegetable seed production.

Animal products

With 493 380 head of cattle in February 2004, the Western Cape accounts for just 3.6% of the national herd, although its 2 979 410 sheep make up a more substantial 10.6%. The region also has 239 757 pigs (15.3 %) and 244 915 goats (3.7%) (see Table 3). The industry is either extensive and field-based (cattle and sheep), or intensive and based on grain feeds (poultry and pigs). While demand for red meat has declined, demand for pork and poultry has risen strongly. The ostrich industry, historically based in the Western Cape, has faced hard times since the mid 1990s, which were characterised by plummeting prices due to over-production, as well as problems with disease and quality control.

Table 3: Estimated livestock numbers per province February 2004

Provinces	Cattle	Sheep	Pig	Goat
Western Cape	493 380	2 979 410	239 757	244 915
Northern Cape	477 005	7 392 223	16 553	471 097
Free State	2 308 416	5 929 711	104 736	74 095
Eastern Cape	3 150 292	8 376 167	273 553	3 015 918
KwaZulu-Natal	2 796 023	826 922	187 972	923 004
Mpumalanga	1 363 183	1 619 400	234 769	102 252
Limpopo	1 173 898	205 044	173 158	1 044 219
Gauteng	273 143	85 171	174 527	8 484
North West	1 785 612	719 180	158 324	766 857
RSA Total	13 820 952	28 133 229	1 563 350	6 650 841

Source: Compiled from the NDA statistical database

The Western Cape broiler industry produces some 135 000 tons annually, accounting for over 17% of national production, which is worth almost R6bn at producer level. The region is home to the country's third largest broiler player, County Fair, as well as its largest egg producer, Nulaid. The Western Cape produces about 20% of the country's annual total of 4,6 billion eggs.

Dairy

The dairy industry is the fourth largest agricultural industry in South Africa, representing 5.6% of the gross value of all agricultural production. The coastal regions of the Western, Southern and Eastern Cape and KwaZulu-Natal contribute more than 42% of national milk production, with the largest number of dairy producers found in the Free State (24.9%) and the Western Cape (21.5%). The 1 267 milk producers in the Western Cape produced 500 million litres of milk in 1999, with a total value at producer level of R545 million.

Milk is bought and processed by over 300 processors and manufacturers, while some 500 producer-distributors also market liquid milk and fresh dairy products.

Large dairy companies represent a very small percentage of all processors but process over 80% of the total milk delivered to dairies, producing a large range of mainly commodity dairy products. There are also numerous small operations processing less than 2000 litres of milk a day, often supplying on a regional basis. Following agricultural deregulation in the mid 1980s, there has been substantial restructuring of both the dairy production and processing sectors in an effort to improve global competitiveness. A significant confidence indicator in the restructuring of the processing sector, in particular, has been the recent heavy investment of multi-nationals like Parmalat and Danone in large South African dairy companies, and the continuing presence of Nestlé and Unilever.

Grain, cereals and oilseeds

The Western Cape is traditionally the country's second largest wheat producer, with 43% of its wheat fields. The province is also the country's sole grower of hops – primarily in the area around George – as well as its major barley grower, producing nearly 95% of South Africa's 90 000 tons of barley in 1999.

Flowers

The floricultural export market has reflected growth in value of more than 54% in the last four years, although the devaluing Rand has played a part in this dramatic appreciation. Roses, chrysanthemums, carnations and gladioli, mostly from Gauteng, make up the bulk of sales, but indigenous flora from the Western Cape also make a significant contribution to national sales. Total annual production of indigenous "fynbos" flowers is in the region of 5 million kilograms, of which 95% is grown in the Western Cape. The export value at producer level is some R60 million for fresh flowers and R30 million for dried flowers, while the local fresh flower market accounts for a further R15 million. Over the past decade, growth in the market for indigenous, fresh, cut flowers has been some 3-5% annually.

Natural products

Growth in global demand for organic foods is beginning to make an impact on South African markets, leading a number of farmers to turn to organic production methods that preserve the soil by crop rotation and natural composting, without the use of synthetic fertilisers or chemical pesticides.

2.2. Western Cape production in a national perspective³

The Western Cape comprises some 12.4% of the agricultural land in South Africa. Table 4 shows the extent of the linkages between agriculture and the rest of the provincial economy in a comparative perspective. The first part of the Table shows the situation in 1996. From these data it is evident that farms were on average smaller than in the rest of the country, the production processes are relatively more labour intensive (farmers in the province employed 17.8% of all farm workers in the country on 12.4% of the land), worker remuneration was considerably higher (farm workers in the province earn 23.9% of all farm wages in the country on 12.4% of the farming area),

³The data presented here was taken from the 1996 Agricultural Survey. In 2000 Statistics South Africa undertook a survey for the National Department of Agriculture "Report on the Survey of Large and Small Scale Agriculture" (2002) which gathered information on, amongst others, i) number of farms ii) farming debt iii) net farm income etc. While this survey is much more recent, the results have not been included here due to the fact that many of the data appear spurious. For example it estimates that there are 23,000 farming units in the Western Cape furthermore, the Survey estimated that South Africa produced more than 1,2 million tons of apples in 2002 while the Abstract gives this figure as being 567,005.

and farmers' gross income is higher than the average for the rest of the country. Higher wages and higher profits mean that the purchasing power in the rural areas of the province is higher than in other parts of the country.

In addition, farmers buy relatively more intermediate inputs, and the level of capital investment is also relatively higher. To the extent that capital and intermediate goods are purchased within the province, this also reflects on stronger linkages with the rest of the economy. Finally, a comparison between the relative level of capital investment and the relative level of indebtedness shows that a greater proportion of capital investment is funded by means of equity rather than debt, which reflects a greater degree of confidence in the economy, and brings all the usual benefits of direct investment, both foreign and local.

The second part of the Table shows the situation in 2002. From these data it is evident that the province has maintained its pre-eminent position in South African agriculture. What is also interesting is the changes that have taken place since 1996. The data show that agriculture in the province is even more employment-intensive than 6 years ago (it now employs 22.5% of the country's farm labour force as opposed to 17.8% in 1996), and that employment on Western Cape farms has actually increased from 202949 in 1996 to 211 808 in 2002. Further, farm wages have risen faster than in the rest of the country (gross remuneration is 27.1% of the country's total remuneration to farm workers, compared to 23.9% in 1996).

The province has maintained its position with respect to gross farm income (20.1% of the country's total compared to 22.4% in 1996) even though the value of field crop production was higher than average in 2002 as a result of the collapse of the Rand. Furthermore, spending on intermediate inputs increased to 20.5% of the country's total, compared to 18.7% in 1996. Thus, the linkages between agriculture and the rest of the economy (largely the result of remuneration to workers and the purchase of intermediate inputs) remain stronger in the Western Cape. Another significant change is that capital expenditure has hardly increased, and a larger share of the expenditure is being financed by debt. Yet these trends are less marked in the Western Cape than elsewhere in South Africa.

2.3. Land use and yield levels

The data in Table 5 show that 19% of the agricultural land in the Western Cape is suitable for planting crops (arable), which is not much higher than the national average of 13.7%. However, while only 26% of the arable land in the Western Cape (and 2.5% of all agricultural land in the province) is irrigated, this is almost double the national average of 1.4% of all agricultural land.

The Table also shows the significant expansion in the area under horticultural products over the past decade. Growth in output has, therefore, come from both technology-induced yield effects and from area expansion. As the latter becomes less of an option in future, the sector will become even more dependent on the technology development and transfer system.

Table 4: Western Cape agriculture in perspective

	1996			2002		
	RSA (total)	Western Cape	Western Cape/RSA (%)	RSA (total)	Western Cape	Western Cape/RSA (%)
Farming area (ha)	82 748 886	10 249 642	12.4	82 748 886	10 249 642	12.4
Number of farms (1993)	57 980	8 352	14.4	45818	7185	15.7
Average farm size (ha)	1427	1227	86.0	1806	1427	79.0
Number of farm workers	1 139 427	202 949	17.8	940815	211808	22.5
Gross remuneration (R'000)	2 779 816	664 555	23.9	6215583	1682857	27.1
Gross farming income (R'000)	19 631 654	4 394 427	22.4	52971232	10653332	20.1
Spending on intermediate inputs (R'000)	14 396 443	2 692 249	18.7	42092135	8642186	20.5
Capital expenditure (R'000)	2 078 368	651 962	31.4	2946773	682574	23.2
Total debt (R'000)	15 283 265	2 522 127	16.5	30857891	7304531	23.7

Source: Agricultural Survey, 1996

Table 5: Land utilisation in the Western Cape

Land use	Ha (1990)	Ha (2000)	%
Total area		12938600	-
Farm land		11560609	89,3
Irrigated land		286004	
Potential arable land		2454788	19,0
Wine grape vines	88407	106300	
Fruit trees	57860	75300	
Vegetables	30475	61300	
Field crops		1286510	
Other		925378	
Grazing land		9105821	70,4
Nature conservation		730731	5,6
Forestry		198938	1,5
Other		448322	3,5

Source: Abstract, 2003, Wesgro, 2001 and Department of Agric. Western Cape - GIS

2.4. Farm numbers and sizes

Table 6 gives the number of farms as well as the average farm size per statistical region in the Western Cape in 1991 (no more recent data are available). Average farm sizes are strongly influenced by the climate and production potential of the region. For example, the average farm size in region 2 (Stellenbosch, Kuilsriver, Somerset West) was 141 hectares whereas the average farm size in the Karoo (region 12) was 5135 hectares. Within regions there are also significant variances. Region 9, for example, consists of the districts Clanwilliam, Vredendal and Vanrhynsdorp. Relatively small, intensively irrigated farms are found along the Olifants River (Clanwilliam and Vredendal), while Vanrhynsdorp is a drier, extensively farmed area with larger farms.

Table 6: Farm numbers and sizes by statistical region for rural Western Cape

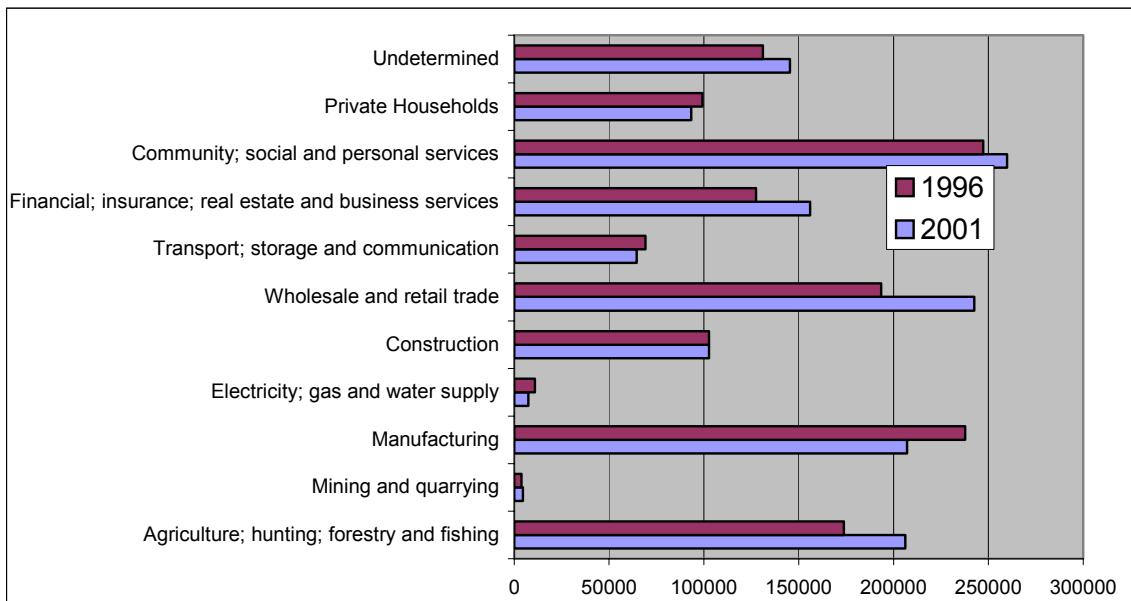
Region	Number of farming units	Total size	Average size	Number of farmers
Kuilsriver, Paarl, Somerset West, Stellenbosch, Strand, Wellington	1101	155473	141	776
Bredasdorp, Caledon, Heidelberg, Hermanus, Swellendam	1339	1114705	832	999
George, Knysna, Mossel Bay, Riversdale	1112	778329	700	1207
Uniondale	125	201971	1616	70
Calitzdorp, Ladismith, Oudtshoorn	533	559870	1050	626
Ceres, Montagu, Robertson, Tulbach, Worcester	1339	122659	913	1947
Hopefield, Malmesbury, Moorreesburg, Piketberg, Vredendal	1158	870682	752	954
Clanwilliam, Vanrhynsdorp, Vredendal	1146	1637862	1429	948
Beaufort West, Laingsburg, Prince Albert, Murraysburg	1146	5884252	5135	781
	8999	12425803	1381	8308

Source: Eckert, 1997

2.5. Employment and wage income

Figure 2 below illustrates the importance of the agricultural sector as an employer in the Western Cape. More than 13.8% of Western Cape residents between the ages of 15-65 and who are employed, work in the agriculture hunting, forestry and fishing sectors. Furthermore Figure 2 shows that while the manufacturing sector has shed an estimated 30,000 jobs from 1996-2001, the primary sector has gained 32,000. Whether these jobs all accrued to the agricultural sector, their full or part-time nature, their location as well as the income they generate all determine the impact of this increase on provincial rural poverty levels. This level of detailed information is not yet available

from Census 2001, however the results of two micro level surveys⁴ are presented below shed some light on the changes occurring in Western Cape agricultural employment patterns



Source: Census 2001

Figure 2: Western Cape: Employment by Sector 2001

These changes include:

- Substitution of permanent labour with temporary/part-time/seasonal labour:** Both Du Toit and Ally (2002) and Sunde and Kleinbooi (1999) found a marked shift away from the employment of permanent workers towards the employment of temporary workers. Reasons cited by farmers as factors inducing this shift include the Extension of Security of Tenure (ESTA) legislation, rising labour costs and minimum wages.
- Increased use of labour contracting:** Du Toit and Ally (2002) found that more than 53% of the farmers they interviewed indicated that they make use of an agricultural labour contractor/broker. In such an instance the employment relationship is no longer directly between the farmer and worker. Rather, a farmer concludes an arrangement with a broker who then supplies the farmer with a team of workers. While this externalisation of labour offers agricultural producers with certain advantages such as the ability to control costs and risks, for farm workers this holds serious implications in terms of livelihoods and income. Rather than being “part of the farm” the relationship between workers and farmers is increasingly an indirect one- limited to cash payment for particular tasks completed (Du Toit and Ally 2002).
- Relative increase in the number of women farm workers employed:** Sunde and Kleinbooi (1999) found a significant increase in the number of women farm workers being employed on farms in the Western Cape. The main reasons cited for this are employers’ attempts to maximise the utilization of the existing on-farm labour pool (an thereby control housing costs). The shift

⁴ The first of these studies was carried out by Sunde and Kleinbooi in 1999. Sunde and Kleinbooi (1999) interviewed 112 farmers/managers and 345 woman farm workers to not only gauge the development status of these women but also describe their location within the agricultural labour market and their access to socio-economic rights. Du Toit and Ally (2002) surveyed 77 horticultural farms in a number of Western Cape districts to assess changes taking place in the labour absorptivity of the Western Cape horticulture sector as well as to explore the implications of this on the livelihoods of farm workers.

towards mixed farming systems has helped flatten the sharp seasonal labour demand peak thus enabling farmers to employ women throughout the year.

With respect to labour remuneration, the best available data comes from the 1996 Agricultural Survey (Table 7 below). These data confirms that agriculture in the Western Cape is relatively more labour using than elsewhere in the country (the data differ from those in Table 2 because these refer to permanent workers only). With 12.4% of the farming area, Western Cape farmers employed 16.2% of the farm workers in 1993, 21.0% in 1996. Total remuneration also increased more rapidly than elsewhere, increasing from 21.8% of the total in the country to 26.1%. Western Cape farmers are also less likely to pay workers in kind (and more likely to pay in cash). Finally, farm worker wages in the rest of the country had started to catch up with those in the Western Cape by 1996, but wages here were still at least a quarter higher than in the rest of the country.

Table 7: Labour remuneration in agriculture

	Unit	1993			1996		
		Western Cape	RSA	Western Cape as a % of RSA	Western Cape	RSA	Western Cape as a % of RSA
Regular Employees (Total)	Number	104,646	647,905	16.2	127,918	610,476	21.0
Total Remuneration	(R'000)	716,540	3,281,317	21.8	1,327,764	5,092,550	26.1
Cash Remuneration	(R'000)	584,016	2,476,688	23.6	1,094,226	4,012,237	27.3
Per worker: Annual							
Total Remuneration	(R'000)	6.85	5.06	135.4	10.38	8.34	124.5
Cash Remuneration	(R'000)	5.58	3.82	146.1	8.55	6.57	130.1
Cash % of total		82%	75%		82%	79%	

Source: Agricultural Census 1993 and Agricultural Survey, 1996

Despite the increase in employment and income opportunities for Western Cape farm workers, their overall development status and access to socio-economic rights has been found to be extremely tenuous (Sunde and Kleinbooi, 1999). In order to gauge the absolute and relative development status of Western Cape farm workers, their position can be compared with a range of Western Cape labour reference groups using the 1996 and 2001 Census data. These groups include the following

- **Workers in other sectors (metro):** This consists of all Western Cape employees working in other sectors of the economy and who reside in the Cape Town Metropolitan Area.
- **Workers in other sectors (non-metro):** This consists of all Western Cape employees working in other sectors of the economy and who reside outside of the Cape Town Metropolitan Area.
- **Unemployed (metro):** This consists of all Western Cape residents who were classified in the Census 96 and Census 2001 as being unemployed and who reside in the Cape Town Metropolitan area. By unemployed is meant that these people a) did not work seven days prior to the interview and b) want to work and are available to start work within four weeks after the Census 96/Census 2001 was conducted.
- **Unemployed (non-metro):** This consists of all people who were classified in the Census 96/Census 2001 as being unemployed and who reside outside of the Cape Town Metropolitan area. By unemployed is meant that these people a) did not work seven days prior to the interview and b) want to work and were available to start within four weeks after the interview

Table 8 shows the comparative living standards of farm workers in the Western Cape. While these data paint a bleak picture, they need to be seen in the perspective of farm worker conditions in the rest of the country, as was shown in Table 4 above. Furthermore Table 8 also indicates the extent to

which the absolute and relative development status of farm workers has improved, with improvements in education levels being most significant.

The data in Table 8 show that farm workers are employed in considerably less skilled occupations than employed and unemployed workers in other parts of the Western Cape economy, and hence also have lower levels of education. They also compare poorly with other workers in terms of access to basic amenities such as home ownership, sanitation, piped water and electricity. Unsurprisingly they also earn less than other employed workers in the urban and rural areas.

2.6. Status of land reform

Briefly, the South African land reform programme consists of three components namely restitution, tenure reform and redistribution. *Restitution* deals with historical land rights and the return thereof, *tenure reform* examines forms of land holding while *redistribution* is focussed on the transformation existing, racial biased land ownership patterns.

With respect to *redistribution*, from 1995 to 1999 this was implemented by means of a *Settlement/Land Access Grant* (SLAG). SLAG was a small grant (R16,000) made available to poor households, usually organised in groups, to buy land on the open market. In 2001, the Department of Land Affairs (DLA) revised this programme and launched, *Land Redistribution for Agricultural Development* (LRAD). The aim of LRAD is to provide financial assistance to black South Africans who wish to farm and it is implemented via a sliding scale grant system ranging from R20 000 to R100 000 depending on own contribution.

Table 9 shows the status of the land reform programme (*redistribution*) in the Western Cape up to the end of 2002. These data show that only some 80 000 ha of land (or about 8/10ths of a percent) had been transferred in the five years since 1997. While an estimated 6,170 households have benefited from the redistribution programme, Table 10 goes further to show that a large percentage of these households took up land for settlement and not farming purposes.

Budget constraints are currently hampering the activities of the Western Cape office of the Department of Land Affairs (DLA). By December 2002, this office had accumulated LRAD commitments worth over R100 million, of which only R48 million was available from current budgets. Over-commitment of funds in 2002/2003 forced the Western Cape land reform office to cease processing new LRAD applications (Jacobs et al, 2003). The number of applicants awaiting land for farming in the Western Cape is estimated to 10,000. It is thus clear that the demand for land in the Western Cape via LRAD, outstrips the supply capacity of the Department of Land Affairs.

Table 8: Living standards of farm workers in the Western Cape in comparative perspective

	Farm Workers		Other Workers (Metro)		Other Workers (Non-metro)		Unemployed (Metro)		Unemployed (non-metro)	
	1996	2001	1996	2001	1996	2001	1996	2001	1996	2001
Occupation structure: % employed in elementary occupations	82	78.10	22	23.03	33	50.9	n.a	n.a	n.a	n.a
% of jobs part time	12.1	-	10.1	-	10.45	-	n.a	-	n.a	-
Education: % whose highest school class completed is grade 7 or less	71.9	61.7	18	16.4	31.4	39.7	22	45.1	33	37.3
Housing: % living in informal/traditional dwelling	7	8.8	14.3	15.0	13.48	11.0	39.5	37.4	24.83	28.8
Housing Ownership: % who own home	17.1	18.24	75.8	57.7	66.9	44.65	79.8	50.16	77.6	52.00
Sanitation: % access to flush/chemical toilet	56.5	71.2	93	91.7	86	83.5	79.1	79.5	79.6	82.3
Water: % with access to piped water in dwelling	53.02	56.5	85.6	75.9	74.4	65.2	61.02	49.3	58.94	46.8
Electricity: % household who use fuel for cooking	54.6	69.2	86.4	86.9	76.8	69.15	60.1	62.9	60.1	63
Income: % who earned less than R 500 per month 1996 % who earned less than R800 per month 2001 (R 543 in 1996 prices)	58	72.24	9.5	15.87	18.7	44.9	n.a	n.a	n.a	n.a
Household income: % whose average household income per member <= R250	44.7		11.8		20.9		60.1		63.5	

Source: Census 96, Census 2001 Unpublished information Statistics South Africa

Table 9: Land redistribution in the Western Cape

	Number of projects	Number of households	Number of female-headed households	Size of land (Ha)
1997	6	383	90	678.00
1998	17	1,478	249	10,415.00
1999	20	944	279	44,493.00
2000	24	2,211	314	4,445.79
2001	27	916		11,798.00
2002	18	238		8,498.00
TOTAL	112	6,170.00	932.00	80,327.79

Source: Monitoring and Evaluation Directorate: Department of Land Affairs

Table 10: Types of Land redistribution in the Western Cape

	Number of projects	Number of households	Number of female-headed households	Size of land (Ha)
ESTA	13	1221	183	213.42
LRAD	29	348		11,857.99
Commonages	2	26		5,843.00
Share equity	20	827	109	6,882.52
SLAG Production	24	1169	162	14,704.00
SLAG Settlement	20	2102	383	6,798.03
SLAG Prod & settlement	4	477	95	34,028.00
Total	112	6170	932	80,326.96

Source: Monitoring and Evaluation Directorate: Department of Land Affairs

The pace of land reform in the Western Cape is not only constrained by the budget of the DLA but also by the supply of land. Current policy primarily rests on the open market acquisition of land by beneficiaries and is thus dependent on private owners willingness to sell. Anecdotal evidence points to a lack willingness on the part of these owners to sell their properties, often deterred by the lengthy and bureaucratic process involved in a land reform transaction. In 2000 the Minister of Land Affairs indicated that 669,000 ha of State land would be targeted for disposal to LRAD beneficiaries (at market related prices) to help speed up the land reform process. As can be seen in Table 11 below, very little of this land is located in the Western Cape (Jacobs et al, 2003).

Table 11: State Land Targeted and Disposed (Hectares)

Province	Land Targeted	Disposal until March 2002
Limpopo	270,777	128,180
North West	36,459	43,778
Western Cape	17,380	3,860
KwaZulu-Natal	48,472	36,610
Northern Cape	49,931	50,824
Eastern Cape	161,363	50,283
Mpumalanga	27,853	15,060
Free State	36,364	67,498
Gauteng	20,401	N/A
Total	669,000	396093

Source: Jacobs et al (2003)

Relatively high land prices are also an important barrier to entry for many new land reform participants especially in the Western Cape. From 1995-1999 Western Cape land prices increased by 41.3% while the national average was only 3.8% (Abstract, 2003).

Finally, the success of the South African land reform programme cannot only be evaluated in terms of improved access to land but also to the extent that land reform beneficiaries are able to access the necessary support they require to be able to farm successfully. No specific institution was given the responsibility for co-ordinating and implementing post-settlement support and it is only in the last 2-3 years that the provincial departments of agriculture have assumed this role. The Western Cape Department of Agriculture has been restructured to incorporate a Farmer Settlement Directorate to ensure land reform beneficiaries have access to agricultural extension, infrastructure support and training. This Directorate receives its budgets from the Province governments, while funding from the NDA is usually earmarked for specific activities such as training and or infrastructure projects.

3. MACROECONOMIC CHARACTERISTICS⁵

3.1. GDP growth

Table 12 shows the rate of GDP growth for the first half of each decade for different sectors in the Western Cape economy over the past 25 years. The two most evident conclusions from these data are that agriculture in the Western Cape has grown faster than a) the rest of the Western Cape economy since at least the mid-1970s, and b) has grown faster than the economy of South Africa since at least the mid-1980s.

Table 12: Real GDP growth by sector in the Western Cape economy, 1975-2001

Sector	1975-1980	1985-1990	1996-2001
Agriculture	1.9	5.1	2.3
Mining	-2.8	-9.4	-12.2
Manufacturing	4.1	1.1	0.6
Energy	-2.1	1.2	2.7
Construction	-5.5	-2.0	4.0
Trade	-0.1	1.1	1.4
Transport	3.0	1.7	6.6
Finance	1.8	3.2	4.9
Other services	1.5	1.1	-1.8
Western Cape	1.5	1.6	2.3
South Africa	3.1	1.6	2.0
SA agriculture	4.1	3.7	0.7

Source: Viljoen and Eckert, 1997 and Statssa, 2002

3.2. Agricultural budget expenditure trends

Table 13 shows a healthy growth over the entire period 1999/2000 to 2005/05 in the budget for Agriculture. Starting off at about 0.6% of the provincial budget in 1999/00, it grows to almost 0.9% in 2004/05.

⁵ This discussion draws heavily on Eckert *et al*, 1997

Table 13: Expenditure 1999/2000 to 2004/05

PROGRAMME	Actual			Voted	Medium-term estimate	
	1999/00 R'000	2000/01 R'000	2001/02 R'000	2002/03 R'000	2003/04 R'000	2004/05 R'000
1. Administration	16 661	15 144	17 808	25 945	21 636	24 245
2. Technology Development & Transfer	23 710	26 954	35 560	34 000	39 106	40 915
3. Agricultural Engineering	19 001	19 726	28 186	32 258	34 202	39 946
4. Veterinary Services	10 604	11 769	13 473	14 077	15 141	17 998
5. Agricultural Training	9 088	9 782	12 024	20 945	25 412	16 468
6. Farmer Settlement	1 289	3 592	-	7 042	8 041	18 838
TOTAL	63 692	86 967	107 051	134 267	143 538	158 410
Percentage Change		From 1999/00 to 2000/01	From 2000/01 to 2001/02	From 2001/02 To 2002/03	From 2002/03 to 2003/04	From 2003/04 to 2004/05
1. Administration			17,59	45,65	-16,61	12,06
2. Technology Development & Transfer		13,68	31,92	17,04	15,02	4,63
3. Agricultural Engineering		3,82	42,89	-0,97	6,03	16,79
4. Veterinary Services		10,99	14,48	11,34	7,56	18,87
5. Agricultural Training		7,64	22,92	50,48	21,33	-35,20
6. Farmer Settlement		178,67	-100	100	14,19	134,27
Total for Department		36,54	23,09	25,42	6,90	10,36
Proportion of Programme to Budget						
PROGRAMME		Actual	Actual	Voted	Medium-term estimate	
	1999/00 %	2000/01 %	2001/02 %	2002/03 %	2003/04 %	2004/05 %
1. Administration		17,41	16,63	19,32	15,07	15,31
2. Technology Development & Transfer	37,23	30,99	33,22	25,32	27,24	25,83
3. Agricultural Engineering	29,83	22,68	26,33	24,03	23,83	25,22
4. Veterinary Services	16,65	13,53	12,59	10,48	10,55	11,36
5. Agricultural Training	14,27	11,25	11,23	15,60	17,70	10,40
6. Farmer Settlement	2,02	4,13		5,24	5,60	11,89
TOTAL	100	100	100	100	100	100

Source: Western Cape Expenditure Review 2003

3.3. Relative economic contributions from different sectors

Table 14 presents aggregated structural relations between different sectors of the Western Cape economy. These data show that the sector is employment intensive, contributing nearly 13% of total formal sector jobs, but low paying, with only 2.56% of total provincial salary and wage payments being derived from farm employment. Horticultural enterprises dominate agriculture's contributions to provincial value added, employment and employee remuneration. Economic contributions from the livestock subsector are also relatively high, both in terms of value added and employment. As a generator of jobs, broiler production outclasses all but some of the horticultural enterprises. Salary and wage payments to farm workers, however, are particularly low in livestock enterprises relative to other subsectors.

Table 14: Structural relations in the Western Cape economy, 1993

	Value Added	Salary and Wage Payments	Employment ^a
All Agriculture	4.16	2.56	12.79
Cereals	0.27	0.15	0.17
Horticulture	2.22	1.46	6.99
Livestock	1.14	0.56	4.61
Agribusiness	4.20	4.10	2.40
Non-Agriculture	72.02	69.09	62.49
Government	18.58	22.48	22.32
Households	1.04	1.77	

Source: Eckert, *et al*, 1997

3.4. International trade

One of the main reasons for the greater contribution of agriculture to the Western Cape economy is the boom in exports. Agriculture's contribution to South Africa's exports has expanded rapidly in the past decade, but exports have nevertheless declined as a proportion of total exports, from more than 10% in 1980 to as low as 7% in 2000. A rapid increase in agricultural exports, mostly from the Western Cape, has however seen this share increase to 8.3% in 2002. At the same time, agricultural imports have also increased rapidly, and more rapidly than in the case of the rest of the economy, with the result that the import share has increased from 2.6% of total imports in 1980 to 5.5% in 2002. The data are shown in Table 15.

Table 15: South Africa's trade portfolio

	1980	1990	2000	2001	2002
Exports					
Total SA exports (Rm)	19 915.4	60 770.0	208 473.9	245 447.9	308 054.1
Total agricultural exports (Rm)	2 052.5	5 289.8	14 572.9	20 074.5	25 460.2
Agricultural exports as % of total exports	10.3	8.7	7.0	8.2	8.3
Imports					
Total SA imports (Rm)	14 381.3	44 141.5	186 380.8	217 115.8	273 646.6
Agricultural imports (Rm)	369.2	2 203.3	9 398.4	10 704.2	14 939.1
Agricultural imports/total imports (%)	2.6	5.0	5.0	4.9	5.5

Source: Adapted from Abstract, 2004

Table 16 shows the top 10 exports from the Western Cape. These categories make up 70,8 percent of total Western Cape exports, with eight of the categories increasing faster than the average of all exports. Three of the categories (including the two largest – fresh, dried and processed fruit, and wine, making up a third of all Western Cape exports) are agricultural products. Further, while the growth in fruit exports has been relatively slow since the mid-1990s, these are expected to increase more rapidly in future. Wine exports, on the other hand, represent an unqualified success story, as the volume of exports has increased from 23m litres in 1991 to 217m litres in 2002, while the value of exports has increased even more rapidly.

Product categories with only a relatively small share in total exports (R25m – R500m, or less than 2% of exports) have also shown significant increases from 1996 to 2002. Table 17 shows 16 of these categories, which together increased their share of total exports from 9,2% in 1996 to 15,2% in 2001 and 16,8% in 2002. Seven of these (tobacco products; meat; cosmetics & essential oils; seeds, fruit & medicinal plants; dairy products; plants, flowers, bulbs; and animal feed) are related to agriculture. Other, smaller categories where there has been a rapid growth in exports include processed cereals, and tea (rooibos and honeybush) and spices.

Table 16: Top 10 Western Cape export products

Product Categories	Exports 2002	% of WC	% increase	Col. (3) less
--------------------	--------------	---------	------------	---------------

	(Rm) (1)	Total 2002 ³⁾ (2)	2002/1996-8 (3)	exchange depreciation ²⁾ (4)
1. Fruit, fresh, canned and juices	6337,7	22,3	135,6	49,0
2. Wine, beer & spirits	3187,4	11,2	323,8	237,2
3. Fish	2418,4	8,5	246,6	160,0
4. Iron & Steel and ores/slag/ash	2381,4	8,4	335,6	249,0
5. Machinery & appliances	1311,0	4,6	222,5	135,9
6. Textile products	1216,1	4,3	307,4	220,8
7. Precious & semi-precious stones & jewellery	1169,3	4,1	411,5	324,9
8. Clothing	755,8	2,7	217,0	130,4
9. Plastic products	682,7	2,4	300,6	214,0
10. Hides, skins & leather	640,5	2,3	88,9	2,3
	20100,3	70,8	-	-
Total exports¹⁾	28 418,0	100,0	194,6	108,0⁴⁾

Source: Wesgro, 2003

Notes:

- 1) Excluding Mineral fuels, oils & oil products of R4 051,4 million which include “non-W/Cape exports”.
- 2) Based on the depreciation of the Rand relative to the Euro (2002/Av. 1996-98 in %) – the depreciation is 86,6% for the 6-year period. Thus, at constant EU: R exchange rates total Western Cape exports between 1996 and 2002 more or less doubled.
- 3) The top 10 exports cover 70,8% of total W/Cape exports excl. fuel/oil).
- 4) Compared to the average overall “real” increase of exports 1996-2002 of 108,0% eight of the Top 10 export products increased at an above-average rate ((1) – (8)), whereas fruit (the W/Cape top export product) and leather/hides increased below average.

In addition, it is known that there has been significant growth in exports of niche products. The wild flower industry, for example, is valued at some R150m per year, 80% of which is exported. The deciduous fruit industry is dependant on bees for pollination, and the bees are almost totally reliant on fynbos in winter. Fynbos, in turn, is an important component of tourism, which attracts about 13% of the Western Cape regional product (Business Day, 27 June 2003). Another example of a rapidly growing niche product is provided by the aquaculture sector.

3.5. Macroeconomic implications of sectoral change

Table 18 presents selected fixed price multipliers for the Western Cape economy. Numbers in the individual columns reflect two different definitions. Employment figures indicate the number of person years of employment created when sales of farm products increase by R1 million. In the other two columns, figures indicate the ratio of the expected change in the particular measure for a given change in the value of final demand. Thus, R1.00 of additional demand for the agricultural sector’s output in general will require R0.21 of additional imports and contribute R0.26 to government revenue. Thus, in terms of this model, agriculture’s potential to contribute to employment in the provincial economy exceeds those of the non-agricultural sectors. Within the latter category, agribusiness has substantially higher employment multipliers than other non-agricultural sectors. Within agriculture itself, the high fliers are the horticultural sub-sector, livestock and field scale vegetables, while cereal production does not compete well. Horticulture and livestock production are also less import-intensive, while cereals and livestock contribute more to government revenue.

The model used for the analysis is a comparative static Computable General Equilibrium (CGE) model. This class of model captures the functioning of an economy at a point in time and through the specification of behavioural relationships can be used for comparative static analysis of the effects of shocks on the economy. The CGE model developed for South Africa (Chant, 2001) is calibrated with data from a social accounting matrix (SAM) for South Africa (McDonald and Robinson, 1998). The SAM is for the Western Cape for 1993. An aggregated version (207

accounts) of the original 291 account Western Cape SAM was used for the calculation of the multipliers. The agricultural commodity and activity accounts, household and factor accounts were aggregated. The activity accounts for the Western Cape correspond to the 94 accounts used in the 1993 supply and use tables for SA.

The SAM records transactions, whereas the CGE model must specify behavioural relationships in terms of both price and quantity (Chant *et al*, 2001). Domestic consumer prices are determined by the domestic prices of domestically supplied commodities and imports. Import prices are determined by the world price of imports, the exchange rate and the import tariff rates. The import tax forms a wedge between domestic and world prices of imports. Domestic consumer prices are subject to the sales tax and this elevates domestic consumer prices above the price of domestic and foreign commodities. Activity prices are determined by the combination of domestic activity prices and export prices. The price of exports is determined by the world price of exports, the exchange rate and the export subsidy. Finally, the value-added prices are determined by the activity prices, the production tax rate, the input-output coefficients and the commodity prices.

Domestic demand comprises of intermediate demand, household consumption, government consumption and investment consumption, which includes destocking. This is satisfied by domestic demand and imports. Similarly domestic production comprises of domestic supply and exports. The level of domestic production determines the level of factor demands which in turn are met by factor supplies.

For the calculation of the SAM-Leontief multipliers the government, capital and rest of the world accounts were assumed exogenous. Note that these multipliers are expected to be slightly larger than input-output multipliers and can be regarded as the upper bound for multipliers.

Table 17: Secondary exports with significant growth 1996-2002

Product Category	Exports in Rm		
	1996	2001	2002
1. Electrical, telecommunications machinery, equipment	226,7	400,8	594,7
2. Ships & boats	37,4	217,1	569,2
3. Furniture, lamps, soft furnishings	86,5	293,6	472,3
4. (Other) chemical products	87,3	110,8	412,9
5. Wood (products)	34,6	244,9	410,4
6. Vehicle parts/accessories	37,6	281,6	378,9
7. Tobacco (products)	47,8	205,6	352,1
8. Meat	32,5	260,1	309,8
9. Cosmetics & essential oils	12,4	103,4	204,4
10. Organic chemicals	55,1	153,2	183,9
11. Paper & paperboard	58,6	140,2	174,7
12. Stones, lime, cement	52,5	216,5	173,7
13. Seeds, fruit & medicinal plants	17,1	129,1	154,8
14. Dairy products	11,8	28,8	130,4
15. Plants, flowers, bulbs	45,6	84,8	127,0
16. Animal feed	4,9	31,1	119,9
Sub-total	848,4	2 901,6	4 769,1

Source: Wesgro, 2003

The first column in Table 19 shows the addition in total output of the Western Cape economy that results when the demand for agricultural products of the province increases. Thus, R1.00 of additional demand for the agricultural sector's output will increase total output of the provincial economy by R2.50. Some of the sub-components of agriculture generate even larger increments in output, the highest being meat, while the output multipliers for the food processing subsectors are also relatively large. Among the highest output multipliers is found in the animal feed sector (2.76). However, total output gives a skew picture of the economic impact of a sector, therefore the Gross

Geographic Product (GGP) multiplier is also provided in the second column of Table 19.

Table 18: Fixed price multipliers for commodity and sector groupings

	Employment	Imports	Government Revenue
All agriculture	82.8	0.21	0.26
Cereals	26.1	0.27	0.27
Horticulture	92.8	0.20	0.24
Livestock	88.4	0.20	0.27
Agribusiness	39.7	0.26	0.20
Non-Agriculture	29.4	0.25	0.22

Source: Eckert, *et al*, 1997

Table 19: SAM-Leontief multipliers from the 1993 Western Cape Social Accounting Matrix

	Output	GGP	Labour	Capital	Income
Agriculture	2.50	1.05	0.51	0.54	0.79
Meat	2.75	1.05	0.54	0.51	0.81
Fruit	2.67	1.09	0.51	0.58	0.81
Oils	2.67	1.06	0.49	0.57	0.78
Dairy	2.79	1.10	0.53	0.58	0.82
Grain mills	2.66	1.07	0.48	0.59	0.78
Animal feeds	2.76	0.98	0.46	0.52	0.73
Fish	2.75	1.14	0.57	0.57	0.86
Bakeries	2.78	1.12	0.55	0.57	0.85
Confectionery	2.58	1.05	0.55	0.50	0.80
Other food	2.41	1.13	0.46	0.67	0.80
Beverages & tobacco	2.64	1.07	0.50	0.57	0.79
Textiles	2.53	1.11	0.57	0.54	0.85
Wood	2.56	1.13	0.59	0.54	0.87
Basic chemicals	2.97	1.16	0.56	0.60	0.87
Fertilisers	2.31	1.06	0.44	0.62	0.75
Tyres	2.53	1.09	0.56	0.53	0.83
Iron and steel	2.17	1.04	0.51	0.53	0.78
Agricultural machinery	2.62	1.05	0.57	0.48	0.82
Machine-tools	2.63	1.13	0.62	0.50	0.88
Food machinery	2.72	1.10	0.59	0.50	0.85
Trade	2.31	1.22	0.64	0.58	0.94
Accommodation	2.14	1.12	0.45	0.67	0.79
Transport services	2.07	1.09	0.54	0.55	0.83
Communications	2.22	1.25	0.76	0.49	1.02
Insurance	2.15	1.25	0.60	0.66	0.93
Real estate	1.87	1.08	0.27	0.81	0.68
General Government	2.30	1.29	0.93	0.36	1.12

Reference: Punt, C (2002) *SAM-Leontief multipliers for the Western Cape*. Personal Communications. Department of Agriculture: Elsenburg

The GGP multiplier shows the ratio of the expected change in provincial value added (i.e. provincial GGP) for a given change in the value of final demand. Within agriculture, an increase in the demand for fruit by R1 million will lead to an increase of R1.1 million in provincial GGP. An increase in demand for the produce of the agribusiness sector will result in even larger increases in provincial GGP, with the multipliers ranging from 1.05 in the case of confectionaries to 1.12 in the case of bakeries and 1.13 in the case of other foods. These multipliers are, nevertheless, lower than those found in some service sectors.

The Table also shows the payments to capital and labour as a result of the added output. In the case of agriculture as a whole, labour remuneration makes up 49% (0.51 of 1.05) and payments to capital 51%, as compared to fertiliser, for example, where payments to labour contributes less than 42%, and hence the production process is more capital intensive.

Finally, the data in the last column of Table 19 show how household income is affected as a result of an increase in demand for agricultural products. These data show that the incomes of farmers and farm workers increase by R0.79 for every R1.00 increase in demand (the difference constitutes ‘leakages’ such as taxes, etc.). This is also lower than in the case of other industries, especially in the service sector. However, growth in demand for agricultural products tends to lead to a more equal distribution of income, as is evident from Table 19.

3.6. Effects of sectoral growth on household incomes

Each sector of the economy will generate incomes received by households in a unique multiplier pattern. Sectoral differences appear in the amount of such incomes generated and in the equity or inequity of their distribution. Table 20 illustrates some of these differentials for the agricultural sector. The “income multiplier” column provides coefficients that reflect the amount of additional household incomes resulting from R1.00 of additional sales in agriculture. The data show clearly that rural household incomes rise by more than those of urban households when the agricultural sector grows, leading to a more equitable distribution of income.

This analysis demonstrates the importance of the Western Cape’s commercial agriculture to meeting efficiency and equity objectives. Commercial agriculture, taken in the aggregate, is the strongest provider of jobs and has a significant impact on value added (GGP) in the province. The sector excels in generating incomes for households and is particularly notable for the high share of those incomes that accrue to the province’s poor. Because of their backward linkages to production agriculture, the agribusinesses compares well with other non-agricultural sectors in terms of these goals as well.

Table 20: Income multipliers for selected households

	GGP	Labour	Capital	Output	Income
African urban households	0.69	0.35	0.34	1.48	1.54
African rural households	0.66	0.32	0.34	1.44	1.81
Coloured urban households	0.61	0.30	0.31	1.30	1.46
Coloured rural households	0.70	0.32	0.38	1.53	1.63
White urban households	0.51	0.26	0.25	1.03	1.39
White rural households	0.46	0.24	0.22	0.90	1.40
Enterprises	0.28	0.14	0.14	0.58	0.76

Reference: Punt, 2002

4. CONSTRAINTS TO EXPANSION

The data presented here show that the agricultural sector of the Western Cape has grown relatively rapidly over the past decades, and that there have been a number of success stories, such as the rapid growth in wine, citrus and table grape exports, and the exploitation of foreign and domestic markets with smaller niche products. Further, the sector has contributed to, and benefited from, the boom in the tourism industry. The contribution of agriculture has been both directly through increased output, and indirectly through the multiplier effect. Whether the sector can continue with this growth depends on a number of factors, the most important being:

- **The level of market demand.** South Africa is a relatively small player in most of the foreign markets to which Western Cape farmers sell their products. For this reason, exporters should be able to continue exploiting growing markets, and to shift exports to markets with higher growth over time. However, continued expansion in exports is dependent on a) farmers' ability to maintain their competitive position; b) the exchange rate; c) growth in world markets.

With respect to maintaining their competitive position, farmers' profit margins have come under increasing pressure since 1995. From 1995 to 2002, producer prices for fruit, vegetables and viticulture products increased by 41.6%, 44,2% and 54.2% respectively. Over the same period, the cost of farming implements and intermediate inputs increased by 61.2% and 84.8% respectively (Abstract, 2003).

The steady depreciation of the Rand over the past decade helped boost export earnings however, the strong appreciation of the Rand during the past year does not bode well for Western Cape exporters.

Farmers have shown their ability to adapt to the rapidly changing policy environment thus far, although misguided policies in the form of unstructured land reform and labour market interventions, etc. could threaten this ability in the longer run.

- **Farmers' competitive position.** This will depend on the extent to which supply chains can be kept competitive and on farmers' ability to find and adapt new technologies. The two most important variables in this regard are the logistical costs of getting perishable products to the market (i.e. the availability of high quality transport infrastructure, port facilities, etc.) and the funding of agricultural research and development initiatives. In terms of agrolistics, a 1997 study showed how the expansion of the local fynbos industry was hampered by a lack of affordable airline freight space into the European Union (Allerts et al 1998). Similarly, a study on the cold fruit supply chain between South Africa and the Netherlands identified various infrastructure capacity problems such as insufficient cold storage facilities in certain regions, not enough refrigerated trucks suitable for fruit transport and bottlenecks in the fruit terminals as barriers to industry development (Broens et al 2000)
- **Resource availability.** Many of the agricultural products in the Western Cape require specific kinds of soils, characterised by slope, rainfall, soil composition, etc., and soils are a scarce resource. The availability of soils is also dependent on farmers' willingness to invest in fixed improvements to soil, hence on a stable investment climate. Much of agricultural production is also dependent on irrigation, hence the availability of water, where competition from urban areas for scarce water resources is strong, will play an important role in determining the future growth potential of agriculture.

This point is illustrated by the fact that although the most important source of water in the Western Cape, the Berg-Breede Basin, yielded a surplus of 617 million cubic metres in 1996, a deficit of 834 million m³/year is projected for this system by 2030. This deficit is due to a trebling in urban and domestic demand as well as an increase in industrial use. The Berg/Breede system has the scarcest water in the country and Leiman et al (2000) indicate that it is the only South African case where agriculture, as low value user, will have to transfer some of its water resource allocation to urban and industrial users. This expected shift will have serious consequences for the development of intensive agriculture in the Western Cape and require significant investment in new irrigation systems along the alternative Olifants/Doring River system Such investment is dependent on investor

confidence, which in turn depends largely on political and social stability, i.e. on judicious policies that encourage employment-creating growth and equity in the country at large.

- **The regulatory environment.** Most farms are operated as small and medium scale enterprises. As such, these businesses are as subject to the disincentive effects of bureaucratic red tape as their urban counterparts. These include the provisions of tax, environmental and labour laws that were designed to suit the needs of big business, and often hamper the growth of SMMEs.

South African (and Western Cape) fruit exporters are in a far less vulnerable position now than in the era of monopoly exporting, as they sell a wider variety of produce to a greater number of markets, i.e. they are less vulnerable to sudden shifts in demand in single markets. There is, therefore, sufficient reason to believe that the current export success from the Western Cape is more than a temporary phenomenon. When coupled with the multiplier effects of this growth on the agro-processing industry and on tourism, and with their positive redistributive effects, there is every reason to believe that the sector can continue to lead both growth and equity in the provincial economy.

5. REFERENCES

- Abstract, 2003, Abstract of Agricultural Statistics, National Department of Agriculture, Pretoria
- Agricultural Census 1993, Pretoria, Statistics South Africa
- Agricultural Survey, 1996, Pretoria, Statistics South Africa
- Agricultural Census, 2002, Pretoria, Statistics South Africa
- Allerts S., Kleynhans, T and N Vink , 1998, Fynbos Exports for the Western Cape: A problem of logistics. *Agrekon* 1998:37(4), pp 588-596.
- Broens, Van Dyk E and Tavasszy. 2000. The cold fruit supply chain between South Africa and the Netherlands. Unpublished TNO Inro Report, Netherlands.
- Census 96, 1996, Pretoria, Statistics South Africa
- Census 2001, 2003. www.statssa.org.za (Accessed September 2003))
- Chant, LJ, 2001, *Tariff reform in South Africa: A multi-sector computable general equilibrium analysis*. MA Economics Dissertation, University of Sheffield, United Kingdom.
- Chant, L, S. McDonald and C. Punt, 2001, Agricultural trade liberalisation, agricultural productivity growth and employment. *Agrekon*, 40(4): 573-583.
- Department of Agriculture, Western Cape. GIS database
- Du Toit, A and Ally, F., 2002. The Externalisation and Casualization of Farm Labour in Western Cape Horticulture: A survey of patterns in the agricultural labour market in key Western Cape districts and their implications for employment justice. Unpublished research report for the Centre of Rural Legal Studies Stellenbosch and the Programme for Land and Agrarian Studies, UWC.
- Eckert, JB, GF Liebenberg and DP Troskie, 1997, The Macroeconomics of Western Cape Agriculture: Analysis with a Social Accounting Matrix. Strategic Micro and Macro Modelling Project, Sub-Directorate of Agricultural Economics, Department of Agriculture of the Western Cape, Elsenburg.
- Jacobs, P, Lahiff, E and Hall R., 2003. Land Redistribution. Unpublished research report Programme for Land and Agrarian Studies, University of the Western Cape.
- Leiman, T, B. Conradie and Eckert, J., 2000. Agriculture, Water Resources and The Macro Economy. WWF: Macro Economic Reforms and Sustainable Development In Southern Africa. South African Project. DBSA, Midrand.
- Oanda, 2003. www.oanda.com/fxhistory (Accessed September 2003)
- McDonald, S and S Robinson, 1998, *Developing a social accounting matrix for South Africa*. ESRC Development Economics Study Group Annual Conference, University of Reading, July.

Sunde, J and Kleinbooi K., 1999. Promoting equitable and sustainable development for women farmworkers in the Western Cape. Report on a Research Project undertaken by the Centre for Rural Legal Studies Stellenbosch.

Punt, C, 2002, *SAM-Leontief multipliers for the Western Cape*. Personal Communications. Department of Agriculture: Elsenburg

Statistics South Africa, 2002, Gross domestic product per region: annual estimates, 1995-2001. Statistics South Africa, Discussion Paper.

Viljoen, J and JB Eckert, 1997, Engine of Growth: Commercial Agriculture in the Western Cape. University of Stellenbosch, Unpublished report

Wesgro, 2003, www.wesgro.co.za (Accessed September 2003).

Western Cape Expenditure Review, 2003. www.capegateway.gov.za/eng/pubs/reports-research/w (Accessed July 2004)

**APPENDIX 1:
Western Cape Deciduous Fruit**

Western Cape apple producing regions

District	Area (ha)	% of Total
Groenland	7 595	33.94%
Ceres	5 020	22.43%
Villiersdorp / Vyeboom	3 495	15.62%
Langkloof West	515	2.30%
Little Karoo	490	2.19%
Piketberg	384	1.72%
Southern Cape	204	0.91%
Hex Valley	148	0.66%
Somerset West	143	0.64%
Wolseley / Tulbagh	69	0.31%
Berg River	55	0.25%
Stellenbosch	34	0.15%
Franschhoek	16	0.07%
Cape Town	8	0.04%
Rest of South Africa	4 203	18.77%
TOTAL	22 379	100%

Western Cape pear producing regions

District	Area in hectares	% of Total
Ceres	5 367	42.00%
Groenland	1 755	13.74%
Wolseley / Tulbagh	1 182	9.25%
Villiersdorp / Vyeboom	928	7.26%
Little Karoo	850	6.65%
Berg River	307	2.40%
Somerset West	255	1.99%
Piketberg	244	1.91%
Stellenbosch	223	1.75%
Langkloof West	131	1.02%
Hex Valley	105	0.82%
Southern Cape	96	0.75%
Franschhoek	51	0.40%
Cape Town	7	0.06%
Rest of South Africa	1 276	10%
TOTAL	12 777	100%

Western Cape Table Grape production regions

District	Table Grapes		Dry & Table Grapes		Dry Grapes	
	Area (ha)	% of Total	Area (ha)	% of Total	Area (ha)	% of Total
Hex Valley	4 580	37.40%	445	5.17%		
Berg River	2 616	21.36%	474	5.50%		
Piketberg	919	7.50%	239	2.78%		
Little Karoo	313	2.55%	107	1.24%	1	0.14%
Namaqualand	278	2.27%	335	3.89%	405	43%
Wolseley / Tulbagh	60	0.49%	2	0.02%		
Stellenbosch	30	0.25%	15	0.18%	26	3%
Ceres	6	0.05%	1	0.02%		
Groenland	4	0.03%	2	0.02%		
Cape Town	3	0.02%		0.00%		
Rest of SA	3 438	28.08%	6999	81.18%	506	53.86%
TOTAL	12 247	100%	8 619	100%	938	100%

Western Cape apricot production regions

District	Area planted (ha)	% of Total
Little Karoo	3255.2	68.70%
Piketberg	208.0	4.39%
Wolseley / Tulbagh	158.5	3.35%
Ceres	144.4	3.05%
Langkloof West	135.1	2.85%
Hex Valley	103.0	2.17%
Berg River	66.2	1.40%
Villiersdorp / Vyeboom	60.1	1.27%
Southern Cape	47.1	0.99%
Somerset West	18.5	0.39%
Cape Town	17.7	0.37%
Groenland	12.0	0.25%
Namaqualand	5.4	0.11%
Franschhoek	2.0	0.04%
Stellenbosch	0.3	0.01%
Rest of SA	504.5	10.66%
TOTAL	4 738	100%

Western Cape plum & prune production regions

District	PLUMS		PRUNES	
	Area (ha)	% of Total	Area (ha)	% of Total
Berg River	904.01	20.12%	3.86	0.68%
Little Karoo	951.19	21.17%	19.36	3.41%
Stellenbosch	545.13	12.13%		
Groenland	475.65	10.59%		
Franschhoek	286.25	6.37%	0.07	0.01%
Wolseley / Tulbagh	191.26	4.26%	431.94	76.11%
Ceres	150.38	3.35%	79.25	13.97%
Somerset West	156.33	3.48%		
Villiersdorp / Vyeboom	141.92	3.16%	1.91	0.34%
Southern Cape	125.02	2.78%		
Hex Valley	78.50	1.75%	13.06	2.30%
Piketberg	66.58	1.48%	5.43	0.96%
Cape Town	12.28	0.27%		
Langkloof West	9.58	0.21%		
Rest of SA	398.92	8.88%	12.12	2.22%
TOTAL	4 493	100%	567	100%

Western Cape nectarine production regions

District	Area planted (ha)	% of Total
Ceres	390.78	28.34%
Berg River	156.60	11.36%
Wolseley / Tulbagh	145.84	10.58%
Little Karoo	142.81	10.36%
Piketberg	105.09	7.62%
Villiersdorp / Vyeboom	38.27	2.78%
Stellenbosch	29.66	2.15%
Hex Valley	25.38	1.84%
Groenland	21.95	1.59%
Franschhoek	13.24	0.96%
Southern Cape	3.61	0.26%
Somerset West	1.27	0.09%
Cape Town	1.09	0.08%
Namaqualand	0.35	0.03%
Langkloof West	0.24	0.02%
Rest of SA	302.9	21.94%
TOTAL	1379.08	100%

Western Cape peach producing areas in hectares

District	Dessert peaches		Cling peaches	
	Area (ha)	% of Total	Area (ha)	% of Total
Little Karoo	80	6.04%	3 599	43.74%
Wolseley / Tulbagh	168	12.74%	1 442	17.52%
Ceres	158	11.99%	1 200	14.58%
Southern Cape	0	0.02%	501	6.09%
Hex Valley	15	1.16%	482	5.86%
Villiersdorp / Vyeboom	10	0.78%	287	3.49%
Piketberg	191	14.46%	216	2.63%
Berg River	65	4.96%	66	0.81%
Franschhoek	25	1.89%	47	0.57%
Stellenbosch	10	0.77%	32	0.39%
Langkloof West	3	0.19%	32	0.38%
Groenland	6	0.45%	30	0.37%
Somerset West			8	0.10%
Cape Town	6	0.43%	6	0.07%
Namaqualand	1	0.08%	0	
Rest of SA	641	44.04%	281	3.4%
TOTAL	1 379	100%	8 229	100%

APPENDIX 2
Citrus Fruit Production per Province

South African citrus production regions

District	Area (ha)	Contribution
Eastern Cape	14,212	26%
Limpopo	13,409	24%
Mpumalanga	12,031	21%
Western Cape	9,656	17%
KZN	3,937	7%
Swaziland	2,086	4%
Other	503	1%
TOTAL	55,834	100%

South African Valencia's production regions

District	Area (ha)	Contribution
Limpopo	9,223	40%
Mpumalanga	5,276	23%
Eastern Cape	4,089	18%
Western Cape	2,187	10%
KZN	1,134	5%
Other	925	4%
TOTAL	22,834	100%

South African navel production regions

District	Area (ha)	Contribution
Eastern Cape	5,461	40%
Western Cape	3,696	27%
Mpumalanga	2,419	18%
Limpopo	1,064	8%
KZN	637	5%
Other	372	2%
TOTAL	13,650	100%

South African mandarin production regions

District	Area (ha)	Contribution
Western Cape	2,639	49%
Eastern Cape	1,913	36%
Mpumalanga	429	8%
Limpopo	207	4%
Other	177	3%
TOTAL	5,366	100%

South African lemon & lime production regions

Region	Area (ha)	Contribution
Eastern Cape	2,455	50%
Western Cape	946	19%
Limpopo	622	13%
Mpumalanga	469	9%
KZN	377	8%
Other	68	1%
Total	4,936	100%

APPENDIX 3

(www.nda.agric.za)

**Estimated cattle numbers per commercial areas
in the Western Cape**

MAGISTERIAL DISTRICT / LANDDROSDISTRIK	QUARTERS / KWARTALE						
	Aug-02	Nov-02	Feb-03	May-03	Aug-03	Nov-03	Feb-04
Western Cape / Wes-Kaap							
Commercial areas / Komersiële gebiede							
Beaufort West	3,425	3,428	3,260	3,438	3,445	3,416	3,392
Bellville	8,864	8,870	8,437	8,897	8,914	8,840	8,779
Bredasdorp	21,865	21,879	20,810	21,945	21,988	21,806	21,655
Caledon	32,720	32,741	31,141	32,839	32,903	32,632	32,406
Calitzdorp	3,163	3,165	3,010	3,175	3,181	3,155	3,133
Ceres	1,939	1,941	1,846	1,947	1,950	1,934	1,921
Clanwilliam	10,126	10,133	9,638	10,163	10,183	10,099	10,029
George	9,997	10,003	9,515	10,033	10,053	9,970	9,901
Heidelberg	39,535	39,560	37,628	39,679	39,757	39,429	39,155
Hermanus	25,664	25,680	24,426	25,758	25,808	25,595	25,418
Hopefield	5,155	5,158	4,906	5,174	5,184	5,141	5,106
Kaap	2,260	2,262	2,151	2,269	2,273	2,254	2,239
Knysna	13,376	13,384	12,731	13,425	13,451	13,340	13,247
Kuilsrivier	1,566	1,567	1,491	1,572	1,575	1,562	1,551
Ladismith	8,397	8,402	7,992	8,427	8,444	8,374	8,316
Laingsburg	856	857	815	859	861	854	848
Malmesbury	66,542	66,584	63,331	66,784	66,914	66,362	65,902
Montagu	3,595	3,597	3,422	3,608	3,615	3,585	3,561
Mosselbaai	28,884	28,902	27,491	28,989	29,046	28,806	28,607
Murraysburg	2,183	2,185	2,078	2,191	2,196	2,177	2,162
Oudtshoorn	8,764	8,770	8,341	8,796	8,813	8,740	8,680
Paarl	13,126	13,134	12,493	13,174	13,199	13,091	13,000
Piketberg	34,513	34,535	32,848	34,639	34,706	34,420	34,181
Prins Albert	1,014	1,014	965	1,017	1,019	1,011	1,004
Riversdal	47,560	47,590	45,266	47,733	47,826	47,432	47,103
Robertson	6,608	6,613	6,290	6,633	6,645	6,591	6,545
Simonstad	117	117	112	118	118	117	116
Somerset-West	247	247	235	248	248	246	245
Stellenbosch	2,800	2,802	2,665	2,811	2,816	2,793	2,774
Strand	*	*	*	*	*	*	*
Swellendam	31,705	31,725	30,175	31,820	31,882	31,619	31,400
Tulbagh	12,015	12,023	11,435	12,059	12,082	11,983	11,900
Uniondale	4,771	4,774	4,541	4,788	4,798	4,758	4,725
Vanrhynsdorp	804	804	765	807	808	802	796
Vredenburg	14,232	14,241	13,546	14,284	14,312	14,194	14,096
Vredendal	2,075	2,077	1,975	2,083	2,087	2,070	2,055
Wellington	4,407	4,409	4,194	4,423	4,431	4,395	4,364
Worcester	8,543	8,549	8,131	8,574	8,591	8,520	8,461
Wynberg	26	26	25	26	26	26	26
Commercial areas / Komersiële gebiede	483,443	483,747	460,120	485,204	486,149	482,141	478,799
Communal areas / Kommuniële gebiede	14,722	14,732	14,012	14,776	14,805	14,683	14,581
Total / Totaal	498,165	498,479	474,132	499,980	500,954	496,824	493,380

**Estimated sheep numbers per commercial areas
in the Western Cape**

MAGISTERIAL DISTRICT / LANDDROSDISTRIK	QUARTERS / KWARTALE						
	Aug-02	Nov-02	Feb-03	May-03	Aug-03	Nov-03	Feb-04
Western Cape / Wes-Kaap							
Commercial areas / Komersiële gebiede							
Beaufort West	258,661	234,307	230,519	255,653	258,391	246,923	241,445
Bellville	9,463	8,572	8,433	9,353	9,453	9,033	8,833
Bredasdorp	218,826	198,223	195,018	216,281	218,598	208,896	204,262
Caledon	373,688	338,504	333,032	369,343	373,299	356,731	348,817
Calitzdorp	5,658	5,125	5,042	5,592	5,652	5,401	5,281
Ceres	110,180	99,806	98,193	108,899	110,065	105,180	102,847
Clanwilliam	102,689	93,021	91,517	101,495	102,582	98,030	95,855
George	46,417	42,047	41,367	45,877	46,369	44,311	43,328
Heidelberg	208,179	188,578	185,529	205,758	207,962	198,732	194,323
Hermanus	12,645	11,454	11,269	12,498	12,631	12,071	11,803
Hopefield	6,687	6,057	5,959	6,609	6,680	6,383	6,242
Kaap	573	519	511	567	573	547	535
Knysna	5,614	5,085	5,003	5,549	5,608	5,359	5,240
Kuilsrivier	1,216	1,102	1,084	1,202	1,215	1,161	1,135
Ladismith	21,019	19,040	18,733	20,775	20,998	20,066	19,620
Laingsburg	122,027	110,537	108,750	120,608	121,900	116,489	113,905
Malmesbury	301,033	272,690	268,281	297,532	300,719	287,373	280,997
Montagu	24,529	22,219	21,860	24,243	24,503	23,416	22,896
Mosselbaai	148,760	134,753	132,575	147,030	148,605	142,009	138,859
Murraysburg	87,687	79,431	78,147	86,667	87,595	83,708	81,851
Oudtshoorn	21,575	19,543	19,227	21,324	21,552	20,596	20,139
Paarl	23,900	21,649	21,299	23,622	23,875	22,815	22,309
Piketberg	126,500	114,589	112,737	125,029	126,368	120,760	118,081
Prins Albert	80,822	73,212	72,029	79,882	80,738	77,155	75,443
Riversdal	209,873	190,113	187,039	207,433	209,655	200,350	195,905
Robertson	24,075	21,808	21,455	23,795	24,050	22,982	22,472
Simonstad	302	273	269	298	301	288	282
Somerset-West	211	191	188	209	211	202	197
Stellenbosch	36,879	33,407	32,867	36,450	36,841	35,206	34,425
Strand	*	*	*	*	*	*	*
Swellendam	177,146	160,467	157,873	175,086	176,962	169,108	165,356
Tulbagh	26,549	24,049	23,660	26,240	26,521	25,344	24,782
Uniondale	66,980	60,673	59,692	66,201	66,910	63,940	62,522
Vanrhynsdorp	121,950	110,468	108,682	120,531	121,823	116,416	113,833
Vredenburg	45,010	40,772	40,113	44,486	44,963	42,967	42,014
Vredendal	104,191	94,381	92,855	102,979	104,082	99,463	97,256
Wellington	23,412	21,208	20,865	23,140	23,388	22,350	21,854
Worcester	15,063	13,645	13,424	14,888	15,047	14,380	14,061
Wynberg	*	*	*	*	*	*	*
Commercial areas / Komersiële gebiede	3,169,985	2,871,519	2,825,097	3,133,120	3,166,684	3,026,139	2,959,003
Communal areas / Kommunale gebiede	21,862	19,803	19,483	21,608	21,839	20,870	20,407
Total / Totaal	3,191,847	2,891,322	2,844,580	3,154,728	3,188,523	3,047,009	2,979,410

Estimated goats numbers per commercial areas in the Western Cape

MAGISTERIAL DISTRICT / LANDDROSDISTRIK	QUARTERS / KWARTALE						
	Aug-02	Nov-02	Feb-03	May-03	Aug-03	Nov-03	Feb-04
Western Cape / Wes-Kaap							
Commercial areas / Komersiële gebiede							
Beaufort West	71,269	73,540	70,545	70,469	69,748	70,014	70,454
Bellville	36	37	36	36	35	35	36
Bredasdorp	941	971	932	931	921	925	931
Caledon	1,320	1,362	1,307	1,305	1,292	1,297	1,305
Calitzdorp	272	281	270	269	267	268	269
Ceres	*	*	*	*	*	*	*
Clanwilliam	6,372	6,575	6,308	6,301	6,236	6,260	6,299
George	14,480	14,941	14,333	14,317	14,171	14,225	14,314
Heidelberg	4,489	4,632	4,443	4,438	4,393	4,410	4,437
Hermanus	567	585	561	561	555	557	561
Hopefield	191	197	189	189	187	187	189
Kaap	*	*	*	*	*	*	*
Knysna	259	267	256	256	253	254	256
Kuilsrivier	28	29	28	28	28	28	28
Ladismith	11,761	12,136	11,642	11,629	11,510	11,554	11,627
Laingsburg	1,620	1,672	1,604	1,602	1,585	1,592	1,602
Malmesbury	1,661	1,714	1,644	1,642	1,625	1,632	1,642
Montagu	1,253	1,293	1,241	1,239	1,227	1,231	1,239
Mosselbaai	1,424	1,470	1,410	1,408	1,394	1,399	1,408
Murraysburg	22,888	23,618	22,656	22,632	22,400	22,486	22,627
Oudtshoorn	8,051	8,307	7,969	7,960	7,879	7,909	7,959
Paarl	3,319	3,425	3,286	3,282	3,248	3,261	3,281
Piketberg	1,684	1,738	1,667	1,666	1,648	1,655	1,665
Prins Albert	13,490	13,920	13,353	13,339	13,202	13,253	13,336
Riversdal	4,792	4,945	4,743	4,738	4,690	4,708	4,737
Robertson	967	998	957	956	947	950	956
Simonstad	17	18	17	17	17	17	17
Somerset-West	0	0	0	0	0	0	0
Stellenbosch	50	51	49	49	48	49	49
Strand	*	*	*	*	*	*	*
Swellendam	925	955	916	915	905	909	915
Tulbagh	43	45	43	43	42	43	43
Uniondale	58,851	60,727	58,253	58,191	57,595	57,815	58,178
Vanrhynsdorp	1,604	1,655	1,588	1,586	1,570	1,576	1,586
Vredenburg	821	847	813	812	804	807	812
Vredendal	1,596	1,647	1,580	1,579	1,562	1,568	1,578
Wellington	300	309	297	296	293	294	296
Worcester	495	511	490	490	485	487	490
Wynberg	*	*	*	*	*	*	*
Commercial areas / Komersiële gebiede	237,844	245,425	235,428	235,176	232,769	233,658	235,125
Communal areas / Kommunale gebiede	9,903	10,219	9,803	9,792	9,692	9,729	9,790
Total / Totaal	247,747	255,644	245,231	244,968	242,461	243,387	244,915

APPENDIX 4

Key Sources of Information for Western Cape Agricultural Sub-sectors

Sector	Source
Viticulture	South Africa Wine Industry Statistics 2001/02 www.wosa.co.za/statistics-sawis.asp (Open)
Fruit Deciduous	Key Fruit Industry Statistics (Deciduous Fruit Industry) www.deciduous.co.za/oabs/index (open) & www.fip.co.za
Citrus	www.citrusa.co.za link to www.fruitinfo.co.za (must be subscriber) www.fip.co.za
Vegetables (General)	Crops and Markets, 2003 www.nda.agric.za
Potatoes	http://asa.pc.co.za (South African Potato Producers Association)
Animal Products	Abstract of Agricultural Statistics, 2003 www.nda.agric.za
Dairy	Milk Producers Association www.mposa.co.za
Winter grains	Abstract of Agricultural Statistics www.nda.agric.za
Fynbos	South African Flower Exporters Association www.safex.co.za