

**AGRICULTURE AND MARICULTURE  
SECOND PAPER**

**Strategic Trends and Expectations for various Agricultural  
Commodity Sectors in the Western Cape**

**MOHAMMED KARAAN  
ECKART KASSIER  
NICK VINK  
MICHAEL CHERRY**

## **1. INTRODUCTION**

This report consists of three sections. First, the introduction places the discussion in context by outlining some key points of departure. The second part gives an outline of the main agricultural enterprises, strategic trends and what their future prospects are. The final section provides a summary of the relevant issues and trends together with suggested repositioning strategies to achieve the desired results. The report concludes with a list of possible interventions and policy levers that could be considered.

This section was compiled by collating the expert views of each of the above authors on the commodity sectors in the Western Cape. These views were subsequently discussed with senior management of the Provincial Department of Agriculture on 13/09/04 for comment. Some views were included, however these studied opinions remains those of the authors not subjected to any sanctioning. The Department of Agriculture respected this position and welcomed this and any further opportunities for discussion and debate.

### **1.1 Agriculture is multi-faceted**

Agriculture is often considered by some as fulfilling mainly food security and social welfare functions. Others, however, consider agriculture's contribution towards the GDP as its significant role, notwithstanding that with its forward and backward linkages, it amounts to no more than around 20%. A further view of 'agriculture' is that its potential as a source of raw material for value adding, the pharmaceutical and cosmetic industries with high price elasticities of demand hold considerable promise. In modern times, much greater emphasis is placed on its aesthetic role and environmental stewardship'. This is further testimony of its multi-functionality. This potential multi-faceted role of agriculture should not be overlooked. The relationship between agriculture and tourism in the Western Cape is a particular case in point.

### **1.2 Africa's agribusiness hub**

The Western Cape has improved its position as the premiere region of agriculture in South Africa and thus on the African continent. This region has much to offer agricultural development on the continent in terms of expertise, infrastructure, markets and services, amongst. South Africa will, however, have to direct more resources towards appropriate research programmes, training and information systems, as well the development of markets and cross border supply chains with African countries.

### **1.3 The nature of markets**

Of course, the nature of the agricultural market and the trends within it (e.g. towards food safety and organic production) is most important. Most of the Western Cape's agricultural production is exported, thereby underlining the province's international competitiveness. There is also the potential for 'export' to other provinces and the substitution of imports from them. Much of the dynamics evident in each of the commodity sectors is considered consistent with trends in global markets and confirms that the province is sensitive and oriented to international competitiveness, despite the difficulties associated with this.

### **1.4 Energy**

Another important aspect centres around energy use for agricultural production, which is likely to become even more expensive. More attention should be given to production of products that are inherently lower users of energy or at processes that are energy saving, i.e., the view being that a movement away from high energy production systems, such as thermostatically controlled tunnel farming for instance, needs to be encouraged.

### **1.5 Labour**

Given the high rate of unemployment, it is obvious that where possible and practical labour intensive production systems should be encouraged. Labour absorption can only be enhanced through growth and expansion of the sector. It must, however, be realised that improved technology is a *sina qua non* in order to remain competitive, and replaces labour. The growth achieved in the agricultural sector over the last 6 years has increased employment on farms from 202 949 in 1996 to 211 808 in 2002. Labour absorption and remuneration has also risen faster compared to the rest of the country.

### **1.6 Research, training and advisory services**

The government's role is to fulfil the role of information generator and disseminator via research and advisory services in those domains that 'cannot' be privatised and registered as intellectual property. Examples are basic research and advisory services to those who cannot afford to pay. This role has become even more critical with the increased focus on the advancement of black farmers.

The absolutely critical role of agricultural research is one aspect that has been much neglected in recent years. This can be seen *inter alia*, from the role of the Agricultural Research Council, the lost of expertise to other countries, and the increased privatisation of research and the lack of

extension and adequate research on farming systems for the emerging sector.

### **1.7 Training and skills development**

The human resource skills, already in short supply, will be further stretched as the Agri-BEE and land reform policies gain momentum. One aspect frequently identified under circumstances of failure in land reform projects is the need to upgrade the competencies of the beneficiaries. Furthermore, the trend towards new technology and food safety requires that existing skills require constant upgrading. Agricultural labour and new emerging entrepreneurs should be the prime beneficiaries of skills development initiatives.

### **1.8 Water use**

Extremely important decisions for the Western Cape will need to be taken in the future regarding the allocation of its limited water resources between agriculture and urban development. Irrigated cropping has provided, and will continue to provide the main means for agricultural expansion. For this reason, the efficient use of water (by irrigation farmers in particular) and the most economically equitable way of its allocation, needs to form the technical cornerstone of future agricultural policy.

## **2. Review on agricultural enterprises**

Following on the comments above, the discussion that follows has been divided into two main sections, namely rain fed and irrigated land. In keeping with these comments, it is important to emphasise that the recommendation is that more attention, than in the past, should be placed on rain fed production, though not to the exclusion of irrigated land, where research and advisory work on the more efficient use of existing water resources should be intensified.

### **2.1 RAIN FED LAND**

#### **2.1.1 Field crops**

The proportion of arable land in the Western Cape is estimated to be 19% of the total area. Of this, 26% is rain fed land and situated mainly in the Swartland and Overberg areas of the Province. Arable rain fed land is used almost exclusively for the production of small grains and legumes (often in rotation) and for pastures.

**Wheat, other small grains and oilseeds** are the most important dry land crops. Historically, the Western Cape was South Africa's main source of wheat, but over the years production in the northern areas continued to increase. Today, Free State wheat production alone exceeds that of the Western Cape. However, South Africa has always been and still is a net importer of wheat. The main demand for wheat is centred in Gauteng and KwaZulu/Natal. With the production in the Western Cape being almost twice the province's demand and competing with, mainly, subsidised wheat on the world market, it means that the surplus has to be transported elsewhere (e.g. North). Such a dispensation can only survive if the transport differential to the northern provinces between local and imported wheat remains in place, which is unlikely over the medium to long term.

During the sixty years of a statutory single channel, pan-regional and pan-seasonal fixed price marketing regime, there was a tendency towards wheat monoculture, albeit in the context of a wheat-fallow rotation. At one stage lupins were introduced into the rotation, but due mainly to disease, this practice was discontinued, although of late some interest has been shown in new more disease resistant cultivars. Because of milder summer temperatures and a better rainfall spread in the Southern Cape, from Caledon eastwards pastures (ryegrass/lucerne/clover) now occupy around 50 per cent of the arable land; westwards, due to high summer temperatures and little rain in summer, the introduction of pastures in the Swartland has been limited.

After deregulation in the latter part of the 1990's, producers needed to diversify to manage risks. The introduction of canola is an example. The area under canola standing at 40 000 ha in 2004, is expected to rise to 100 000 within the next few years. Although riskier, canola is destined to be an important enterprise in the Overberg and Swartland.

For the same reasons, the area planted to wheat is likely to decline as marginal areas are withdrawn from cultivation. It is envisaged, especially in areas further distant from the Cape metropole that the better lands will be placed increasingly more under extensive pastures and the remainder left to revert to natural veld to be used by livestock or game, for which there are still unexploited markets. There are however, natural limits to the extent of livestock farming as this is a function of the available fodder from farmed grain. Also, improved cropping systems that enable better utilisation of soils, improved financial returns and soil fertility will come under consideration increasingly.

Not much change is expected in the production of barley, oats and rye. The production of durum wheat is not an option because of climatic limitations – rain is not tolerated by this crop during ripening and harvest time. Some advances are expected with new field crops like flax and hemp, though these are at a very early stage.

### **2.1.2 Herbal extracts and teas**

Herbal teas grown in the Western Cape all originate from local fynbos plant species and are best cultivated in areas from which they originate. All are perennial with shorter life expectancies than say traditional fruit crops.

The most important of the herbal teas is rooibos tea cultivated almost exclusively in the Clanwilliam-Cederberg area with recent expansions in the adjacent parts of the Northern Cape around Niewoudtville. Promoted as a health tea, the rooibos brand is associated with healthy life styles and forms the base of many of the flavoured 'herbal' teas sold in Europe like Camomile, Wild Cherry etc. The export market for rooibos has grown phenomenally in recent years. Germany imports as much rooibos tea as is currently consumed in South Africa where it is regarded as an alternative to normal tea comprising about 20% of all tea drunk as a beverage in South Africa. Initially, after market deregulation, the price of rooibos came down and the profitability of the crop decreased. With a growing export market the position has since been reversed and persistent growth in this market is anticipated. Rooibos tea has suffered from the recent drought (2003) and carryover stocks are presently very low.

Honey bush and buchu are relative newcomers to the commercial beverage industry. Most of the honeybush tea which has been marketed has been harvested from the natural fynbos in the Southern Cape (e.g Haarlem). The unusual, though pleasant, flavour of the tea and the fact that it is being promoted as a health product with deep traditional roots, has resulted in growing demand from a low base. The main constraint at the moment lies in production. There is indeed, little known about optimal production, nor is there clarity on which of the three genotypes from which honeybush can be harvested, produces best yield and quality. There are very few commercial farming operations involved in the production of this beverage. Like Rooibos marginalised communities in Wupperthal and Haarlem have long histories associated with these crops and these could well become the agricultural mainstays for these communities given the favourable global market conditions.

Buchu is in much the same situation in terms of production and marketing as honeybush. The main product from this crop is its essential oil – used as a perfume and a flavourant. Production has expanded considerably in recent years especially in the Piketberg and Overberg coastal areas. Processing (i.e extraction, distillation, chemical analysis, etc) is well developed, but the industry appears to be fragmented with evidence of rivalry. Prices for harvested buchu has been very favourable, but expected to decline as plantings mature and supplies increase. The threat of synthetic alternatives is imminent if high prices are maintained which could lead the industry to a crash. More cooperation among stakeholders is necessary to avoid such threats and enhance competitiveness.

Development of a market for all three of the 'herbal' products will have significant spin offs in terms of provision of employment, especially in

some of the remoter rural regions in amongst the Cape mountains. This is particularly the case with honeybush tea and buchu where the product life cycles are at a very early stage. Funding for research into production would, for instance, accelerate the product development process significantly and provide jobs in places where there are currently few.

Essential oils must also be considered a budding infant industry in the Western Cape. Significant advances are being made with geraniums, lavender, and rosemary, in addition to the established and growing buchu industry. Further untapped opportunities exist with worm wood, lemon grass, cape camomile, bayleaf, basil, sage, thyme, etc. Planting are increasing annually and technology and processing advances are steadily made.

### **2.1.3 Fynbos**

The wild flower industry, sourced from fynbos, has grown significantly in recent years, and has become a major export product in the province – both fresh and dried. For years, fynbos wild flowers, mainly members of the Protea family, have been harvested directly from the wild, but the number of commercial farming operations has grown consistently in recent years. This has been underpinned by breeding and hybridisation as well as research into agronomic techniques, undertaken to enhance the efficiency and quality of production. Unfortunately, although originating from the Cape, many of the fynbos flowers can be successfully bred and produced in other parts of South Africa and the world. However, this should not necessarily be seen as a negative development, as it will help the fynbos flowers gain acceptance in the international markets. Impoverished communities around the province (Elim, Genadendal, Ceres, Montagu) have long traditions of involvement in this sector, but are mainly relegated to wild harvesting which is less lucrative compared to commercial planting. Much support is required to develop commercial irrigated plantings and value-adding in these communities. Joint ventures between communities or disadvantaged pickers and processor-middlemen, still has much scope and could be further encouraged.

### **2.1.4 Forestry**

Although this sector is normally not classified under agriculture, it has some bearing on the potential of the latter. Some afforestation has taken place on land that is, especially with new technology, potentially arable. Other non-arable land under non-indigenous trees could arguably be used more effectively if these areas were to be returned to natural fynbos, apart from the benefit this would have on water conservation.

### **2.1.5 Wine**

With the expected decrease in the availability and higher costs of irrigation water, more wine grapes are likely to be produced under dry land conditions or at best under supplemental irrigation. This is likely to be more so for red grape than white grape varieties. Rain fed wine will only be produced where there is adequate rainfall such as in the Swartland and Boland areas – especially where there is the possibility of some supplementary irrigation.

Expansions into the non-traditional wine area is expected to continue like Overstrand, Little Karoo and the Olifantsriver with due recognition of the water availability concerns there. Cultivar composition will also be appropriated to terroir of regions

## **2.2. IRRIGATED LAND**

As mentioned earlier, about 26% of the arable land in the province is irrigated. Over the medium to long term the availability of water for irrigation will no doubt become agriculture's most limiting resource – especially with regard to labour intensive farming. Programmes for the more efficient use of irrigation water would provide temporary relief, but eventually appropriate water pricing policies or the introduction of water markets will have to be considered. Desalination is not regarded as a realistic water source for farming yet, and even its application for urban use would not be undertaken where water could be more economically diverted from farming.

The rapidly increasing demand for water for human consumption in the Cape Metropole may in fact result in more and more water being taken from agriculture. It is important that cognisance is taken of this limitation in initiating future plans for the agricultural sector of the Western Cape

### **2.2.1 Fruit**

The fruit industry, being labour intensive is a large employer, yet the prospects for increased employment are not good. In the past years there has been a substitution of permanent for seasonal and casual labour. This has happened for a wide range of reasons, mainly legislation such as ESTA, minimum wages and deregulation, which increased the skills requirements of workers, who are paid better, and displace larger numbers of lesser skilled workers in permanent positions. Increased mechanisation is also a contributor, in this regard

Value adding trends in fruit production are moving away from preservation such as canning and drying to cut fruit and fruit salads – which are exported by air to supermarkets in Europe.

#### **2.2.1.1 Deciduous fruit**



There is limited scope for expansion of deciduous fruit in the Western Cape mainly because of the lack of water. In global markets increasing competition can be expected from Chile and Brazil for US and EU markets.

There is some market development, thanks to improved storage technology, that apples and pears have become “commoditised” and in addition, due to the financial problems of the past years, the trees are getting old and need to be replaced with new higher value cultivars. New plantings will therefore be for replacement rather than expansion. There will be a relative swing towards the currently smaller fruit types such as plums, nectarines and apricots, but the problem is that many of these fruits are more risky and will remain small relative to apples and pears. Ultivar composition is envisaged to become more consistent with market conditions.

As implied earlier, no significant movement (except perhaps downwards), is expected in the canning fruit and dried fruit sectors.

#### **2.2.1.2 Citrus**

South Africa is the second largest exporter of oranges in the world, behind Spain. The Western Cape has become the biggest exporter of citrus as a result of the increasing popularity of seedless varieties to which the province is well suited, a trend that has reached its peak and will probably reverse, albeit gradually, unless new markets in the East and in the USA can be developed. The Western Cape is the only province whose citrus exports are allowed into the US due to appropriate sanitary standards, has become the largest exporter of fresh oranges to the US (almost 50% of US imports). Growth is mainly foreseen in the production and exports of ‘easy peelers’ which are especially popular in the US.

#### **2.2.1.3 Table grapes**

The good times appear to be over for table grapes and only low cost producers with the right varieties will survive. There has been a shake-out in the industry, and this is expected to continue for the foreseeable future – at least while the current relatively strong rand/dollar exchange rate remains in place. Areas such as the Hexriver valley are probably less affected than the Orangeriver where the lucrative early season window in Europe brought very lucrative prices and encouraged production and capital expenditure beyond aggregate levels. The filling of these early windows by producers in Chile and Brazil has halted this trend and induced adversity.

#### **2.2.1.4 Olives**

The industry has shown considerable expansion and there is still scope for further expansion of the right varieties. The prospects for preserved olives (in particular) and olive oil seem to be good. South Africa still imports most of its olives and olive oil. Largely, the market does not discriminate

between high and low quality olive oil and imports of mediocre quality can compete on price against the high quality Cape product. Olives have the advantage that they are labour-intensive, can be grown under rain fed conditions (once established), though some irrigation remains preferred. Olive trees can last for several generations.

#### **2.2.1.5 Niche fruits**

Niche markets are by definition relatively small. There is a potential for increased production of fresh figs, pipless pomegranates, dates and persimmons for the export market. The first two are dependent on the import of new varieties. Dates are limited to the hot dry areas of the north and persimmons are subject to 'closed shop' royalty agreements. The genetic patents for suitable persimmons are held worldwide by Israel. There would be considerable merit in negotiating at intergovernmental level with that country for increased allocations to the Cape on order to fill their southern hemisphere seasonal supply gap (vs. other southern hemisphere countries).

More attention by way of research, market development and economic incentives should go into such new crops. However, each new crop requires extensive negotiations and procedures pertaining to SPS measures.

#### **2.2.1.6 Fruit juices**

Riding the movement away from alcoholic to healthier beverages, the market for fruit juices is likely to increase. However, fruit juices are also vulnerable to commodity-like swings, so that exotic flavours may experience demand shifts for substitute fruit juices. Competition from cheaper imports of concentrates from countries like China and Brazil remain a threat. There remains scope for expansion in the production of berries which is labour intensive and has a good alternative fresh market. Local processing companies seem to have sufficient expertise and capacity to support expansion.

#### **2.2.2 Wine**

Apart from the potential for the production of wine under rain fed conditions referred to earlier, most of Western Cape's production takes place under full or at least supplemental irrigation, much of which is of inferior quality. The inevitable increase in the price of water in future will encourage producers to either switch, if possible, to more noble varieties or to more profitable alternatives such as fruit and vegetables.

The industry has done quite well in replanting and changing the age and cultivar composition, yet it is still only 40 % red (60 % in Australia) and only a third is of a quality that can be exported (Australia 80 %). Hence the current trend to the production of higher quality wines can be expected to

increase. At the same time the industry has seen a 7 – 8% expansion into new areas over the past 20 years. This is not expected to accelerate.

Wine exports have shown considerable growth i.e. more than four times in the last five years. Similarly, of the more than 400 existing cellars, about 25% were established in the last five years, many of them being boutique cellars and oriented to high quality. The expansion in processing capacity and exports is expected to increase albeit at a lower rate with an increase in focus on new markets in the East, Africa, the US and parts of the EU (e.g. Scandinavia).

### **2.2.3 Vegetables**

Apart from some exports of quick frozen and canned vegetables, the industry in the Western Cape is largely geared for local consumption. With an expanding population in the Western Cape, changing eating habits (away from a maize meal staple) and an increase in incomes, the demand especially for cabbage, tomatoes, onions and potatoes is expected to rise.

Interestingly, the Western Cape is not competing price-wise in its own markets in the pre-packed baby vegetable with producers outside its boundaries. Most baby vegetables, for instance, are brought in from Zambia.

There seems to be merit in the development of cross-border supply chains especially to the EU for specific vegetables (e.g. sweet potatoes). This trend is often driven by envisaged cost comparative advantages of European companies producing or procuring in Africa. The observed trend is, despite this notion not as overwhelming as suggested.

### **2.2.4 Flowers and flower bulbs**

Another area where local market opportunities are not exploited fully is cut flowers and flower bulbs. Most traditional flowers are grown in Gauteng and transported freshly cut to the Western Cape. Traditionally, cut flowers produce good returns, and one would expect this enterprise to expand in the province in the future. It is both capital and labour intensive.

A local market that is also under exploited is the wholesale garden nursery market. The local demand for plants in the Western Cape is also largely satisfied by Gauteng producers, although not as bad as cutflowers.

### **2.2.5 Herbs and natural products**

Production of specialty herbs, buchu, and essential oils is expected to increase whether produced for the fresh or oil market. Except buchu (as discussed earlier) the production of herbs and essential oils is still too

rudimentary to venture major predictions. The interest shown in production and the investments observed in processing augurs well for the future development of this infant industry.

The opportunities in herbs and essential oils were made in section 2.1.2 and apply equally here.

### **2.3. Animal products**

The production of milk is moving away from zero-grazing to grass-fed systems. In the South Cape, especially areas around the Tsitsikama, milk production has increased considerably and benefited positively from improved economies of scale. With improved roads, it is expected that increasing volumes of fresh milk for the Cape Metropole will be sourced from the South Cape.

There could be merit for small-scale dairy producers along the coast, delivering milk for the (co-operative) production of cheese, although the market is limited.

Not much change is expected in the production of wool and sheep meat. The Karoo areas will continue producing mainly wool as the market for, especially fine wool, will remain good. Some further encroachment into the livestock domain of game farming, often related to tourism, can be expected. The production of wool and sheep meat on planted pastures is not expected to change much.

There is sense in developing a more sophisticated leather industry than is currently in place. Here is one sub-sector where value adding could play a significantly greater role both in increasing revenues and improving unemployment.

**Egg and broiler** production are important enterprises in the Western Cape. New opportunities in these two traditional sectors are likely to be few, but organic and free-range production systems to supply niche markets hold promise.

**Ostriches** are expected to hold its own. A potential for new development and job creation in the sphere of value adding would be the leather industry from hides and skins other than ostriches. This industry targets the more sophisticated consumer market in higher income categories. Hence, environmental consciousness and the impact farming on the natural must be monitored.

### **2.4 Biotechnology**

Biotechnology has emerged as arguably the most prominent and controversial development in agriculture in the last two decades. Much of the controversy centres around transgenic and genetically modified food. There are other aspects that are much less controversial. However, it must be acknowledged that this science has much to offer by way of industrialisation and improvement of food and fibre products. A much greater research and development effort need to be made to capitalise on the benefits of these scientific advancements. Most biotechnology research appear in the private domain and government programmes should at best complement such and in addition act as monitor to ensure credible scientific outcomes for society at large.